

# IS/MND Appendix C

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## Cultural Resources Assessment

# Hicks Canyon Channel Restoration Project

## Cultural Resources Survey

November 2022 | 04663.00002.001

*Submitted to:*

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### **National Archaeological Database Information**

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Firm: HELIX Environmental Planning, Inc.

Client/Project: BKF Engineers / Hicks Canyon Channel Restoration Project

Report Date: November 2022

Report Title: Cultural Resources Survey for the Hicks Canyon Channel Restoration Project, City of Irvine, Orange County, California

Submitted to: City of Irvine

Type of Study: Cultural Resources Survey

New Sites: None; historic-era drainage features are addressed in separate study

Updated Sites: P-30-000513

USGS Quad: Tustin and El Toro 7.5' Quadrangle

Acreage: Approximately 13.2 acres

Key Words: Hicks Canyon Channel Restoration, Orange County; Township 5 South, Range 8 West; Irvine; Culver Drive; Eastwood Path; Hicks Canyon Trail; P-30-000513 (CA-ORA-513); intensive pedestrian survey; negative survey

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## ACRONYMS AND ABBREVIATIONS

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AB	Assembly Bill
AMSL	above mean sea level
BP	Before Present
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
City	City of Irvine
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
HELIX	HELIX Environmental Planning, Inc.
m	meters
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
project	Hicks Canyon Channel Restoration Project
SCCIC	South Central Coastal Information Center
TCP	Traditional Cultural Properties
TCR	Tribal Cultural Resources
USGS	U.S. Geological Survey



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## EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) was contracted by BKF Engineers to provide cultural resources services for the Hicks Canyon Channel Restoration Project (project) in the City of Irvine (City), Orange County, California. The project proposes the improvement of a 13.5-acre portion of the Hicks Canyon Wash storm water conveyance, including bank remediation for stability and access, storm drain extensions, and landscaping. A cultural resources study, including a records search, Sacred Lands File search, Native American outreach, a review of historic aerial photographs and maps, and an intensive pedestrian survey was conducted 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), as amended.

The records search received from the South Central Coastal Information Center (SCCIC) on December 7, 2021, indicated that 13 previous cultural resources studies have been conducted within one mile of the project area, 11 of which overlap with the project area. The records search results also indicated that a total of nine cultural resources have been previously recorded within one mile of the project area; one of which has been documented partially within the project area (P-30-000513 [CA-ORA-513]).

Site P-30-000513 (CA-ORA-513) was a prehistoric site identified and recorded in 1976 as an artifact scatter covering less than 5,000 square feet, which extended from the southern edge of Hicks Canyon Wash to the south. Artifacts identified on the 1976 site record included two chert cores and shell. Two subsequent reports indicated that the site had been destroyed by residential development.

The field investigation for the current project included an intensive pedestrian survey of the project area by a HELIX archaeologist and a Native American monitor on December 17, 2021. The survey resulted in the identification of a single fragment of marine shell (*Chione* sp.) in the mapped area of site P-30-000513 (CA-ORA-513). Thus, this resource appears to have been mostly destroyed, as previously noted by others, and does not meet the criteria for inclusion in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP). Other cultural material observed included numerous structures constructed of concrete and rock, drainage pipes, storm drains, road crossings, bridges, and retaining walls. While some of these features apparently date to the same period as recent residential development surrounding the project area, others appear to be associated with older agricultural uses. A historic evaluation of these features is underway and will be provided under separate cover.

Based on the results of the current study, no archaeological resources qualifying as a historical resource, as defined by CEQA, or historic properties per the NHPA, will be adversely affected by the project. However, due to the cultural sensitivity of the project region and the alluvial setting of the project area, it is recommended that grading and other ground-disturbing activities be monitored by a qualified archaeologist and a Native American monitor. If significant cultural material is encountered during monitoring, the project archaeologist will coordinate with the Consulting Tribes and City staff to develop and implement appropriate mitigation measures.

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# 1.0 INTRODUCTION

HELIX Environmental Planning, Inc. (HELIX) was contracted by BKF Engineers to provide cultural resources services for the Hicks Canyon Channel Restoration Project (project) in the City of Irvine (City), Orange County, California. The project is a proposed approximately 13.5-acre grading and improvement of the Hicks Canyon Wash storm water conveyance, including bank remediation for stability and access, storm drain extensions, and landscaping. 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 was conducted 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), as amended.

## 1.1 PROJECT LOCATION

The project is located in the City of Irvine in the central portion of Orange County (Figure 1, *Regional Location*). The project is located east of Highway 261 and northeast of Interstate 5, within Section 6 of Township 5 South, Range 9 West, on the U.S. Geological Survey (USGS) 7.5' Tustin and El Toro quadrangles (Figure 2, *USGS Topography*). The approximately 13.5-acre project site runs from Culver Drive easterly to 1,650 feet east of Yale Avenue (Eastwood Village), bounded by Hicks Canyon Hiking and Riding Trail to the north, and within the boundaries of Hicks Canyon Wash (Figure 3, *Aerial Photograph*).

## 1.2 PROJECT DESCRIPTION

The project proposes to regrade and landscape along the channel slopes through Hicks Canyon Wash in compliance with 100-year flow management practices, in order to prevent further erosion of the channel, stabilize the channel banks, and protect adjacent residential properties along the southern edge of the channel. The project would also extend the five existing storm drains to connect to the existing 120-inch diameter pipe, thereby allowing the existing 120-inch diameter pipe to convey additional flows.

As part of the project, the length of the wash would be cleared of excess vegetation, silt, and existing, abandoned concrete structures along the channel bottom. A total of 4.56 acres of vegetation would be removed through clearing and grubbing. This would also include the removal of all existing eucalyptus trees and decayed trunks from the wash and areas adjacent to the channel. The second component of the project proposes to recontour the channel to achieve a maximum slope of 2:1 on either side for a total elevation change of approximately 10 feet between the base of the channel and the height of the bank on either side. There would be a raw cut of 4,933 cubic yards and a raw fill of 2,359 cubic yards. Fill materials would also be applied to fill areas within the wash affected by the removal of the existing concrete structures and eucalyptus trees/trunks and associated root structures.

Each of the five existing storm drains would be extended to connect to the existing 120-inch diameter pipe north of the wash. At each storm drain extension, the channel bottom would be excavated to access the existing drainpipe. An additional pipe segment would be installed and connected to the 120-inch diameter pipe using a junction structure and concrete collar and attached to the existing storm drainpipe. The proposed grading would include creating a compacted fill berm over each pipe extension to provide a trail or access crossing.

Landscaping activities would be minimal and are intended to provide stabilization to the re-graded slopes. The channel banks and bottom would be planted with a combination of vegetation types consisting of a variety of native riparian species, as well as a temporary irrigation system to facilitate the establishment of the new landscaping. The sides of the channel would be planted with riparian vegetation that transitions into a dirt aggregate along the access and pedestrian roads. An earthen fill would be installed over the storm drain extensions and along the access road.

## 1.3 REGULATORY FRAMEWORK

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Significant resources are those resources that have been found eligible for the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP), as applicable.

### 1.3.1 Federal

Federal regulations that would be applicable to the project if there is a federal nexus, such as permitting or funding by a federal agency, consist of the National Historic Preservation Act (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 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 represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and/or
- D. has yielded, or may be likely to yield, information important in prehistory or history.

### 1.3.2 State

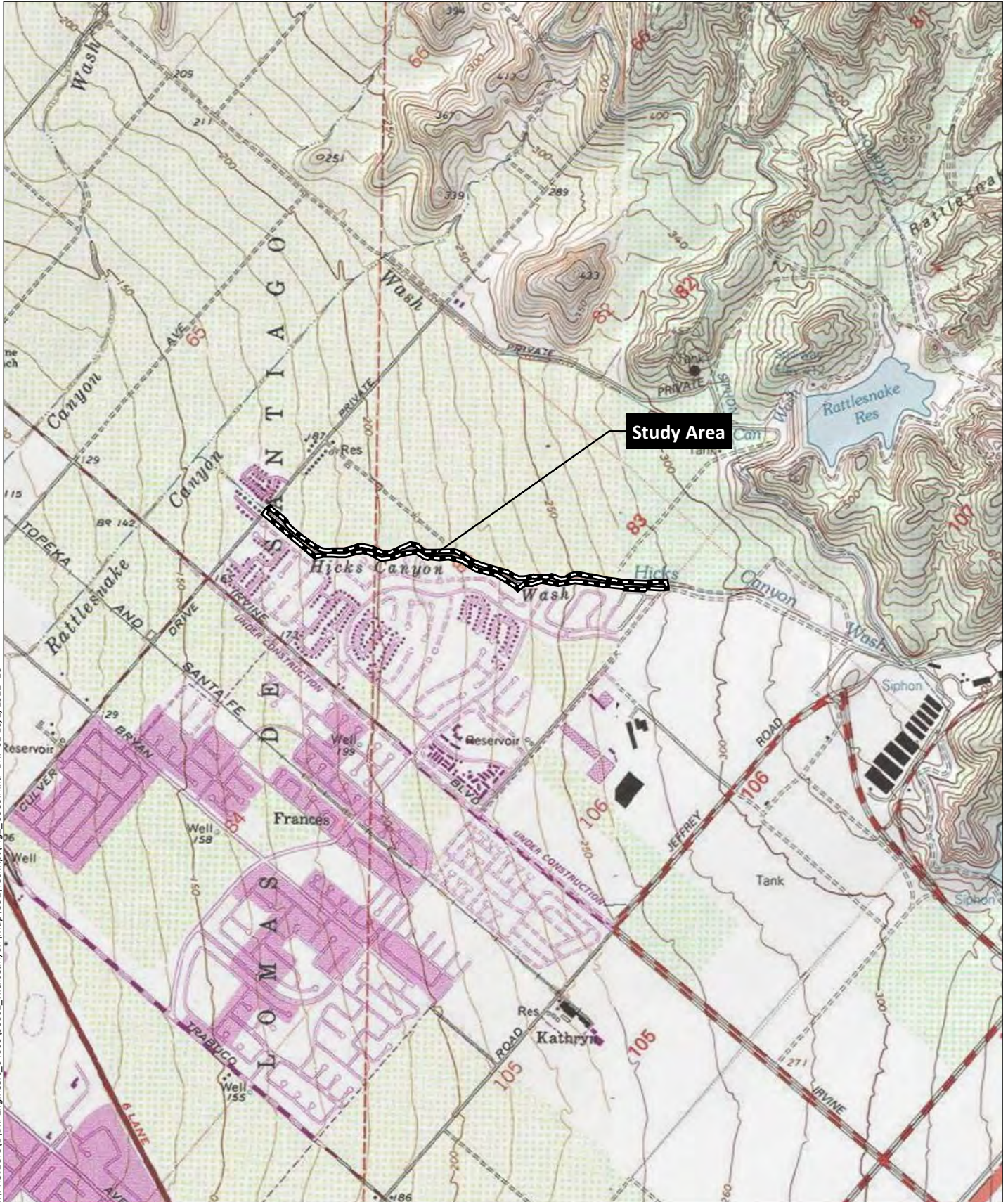
The California Environmental Quality Act, Public Resources Code (PRC) 21084.1, and California Code of Regulations (CCR) Title 14 Section 15064.5, address determining the significance of impacts to archaeological and historic resources and discuss significant cultural resources as “historical resources,”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

- resource(s) listed or determined eligible by the State Historical Resources Commission for listing in the CRHR (14 CCR Section 15064.5[a][1])
- resource(s) either listed in the National Register of Historic Places (NRHP) or in a “local register of historical resources” or identified as significant in a historical resource survey meeting the



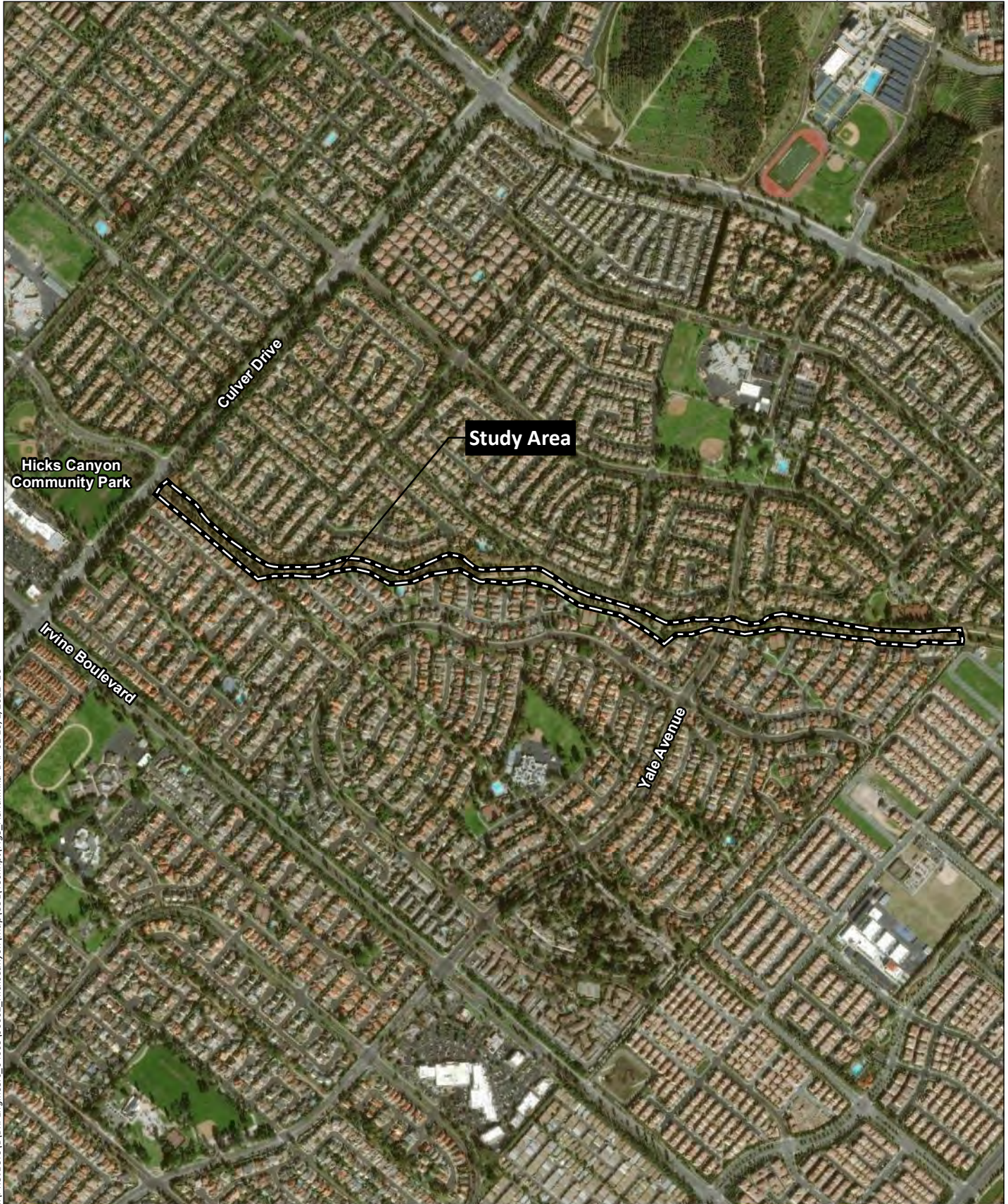
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Source: Base Map Layers (ESRI, 2013)

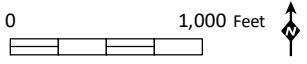


Source: Tustin, 7.5' Quad (USGS)

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Source: Aerial (Maxar, 2020)



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.

### **1.3.3 Integrity**

All resources that are eligible for listing in the NRHP or CRHR must have 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. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity 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 criteria under which it is proposed for nomination. Under Section 106 of the NHPA, actions that alter any of the characteristics that qualify a property for eligibility for listing in the NRHP “in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association” (36 CFR 800.5[a]) constitute an adverse effect to the historic property.

### **1.3.4 City of Irvine General Plan**

The Cultural Resources subsection of the 2015 General Plan provides guidance on managing cultural and paleontological resources in the City. The subsection states the County’s overarching goal and identifies the policies and programs designed to achieve it (City of Irvine 2015). It describes the City’s desire to ensure the proper disposition of historical, archaeological, and paleontological resources to minimize adverse impacts and to develop an increased understanding of the region’s history.

Objective E-1. Identify and obtain information on the existence and significance of historical, archaeological, and paleontological sites and encourage land use planning which incorporates this information

Policy (a). Require appropriate surveys and necessary site investigations in conjunction with the earliest environmental document prepared for a project, in accordance with California Environmental Quality Act (CEQA) and the City's CEQA procedures.

Policy (b). Require surveys, prior to discretionary approval, for areas where the possibility of encountering sites exists. Additional specific site investigations may also be required in order to obtain sufficient information to determine the site's significance. The project sponsor shall fund this level of investigation.

Policy (c). Require a written report be submitted to the City following a survey or investigation describing the findings and making recommendations as to the site's significance, future disposition, and the amount of further investigation which should be undertaken. Copies of site survey records and reports shall be filed with the appropriate clearinghouse.

Policy (d): Encourage, if appropriate, removal of all materials collected during the survey/investigation to local museums, universities, or other depositories providing access for public review or scientific research.

Policy (e): Funding of Archaeological Excavations: Use the following in the case of archaeological salvage excavations: 75 percent project sponsor; 25 percent City or other public or quasi-public agency or organization. The costs of other mitigation measures may also be shared by the landowner or developer, the City, and other agencies or organizations.

Policy (f): Maintain information on areas surveyed, numbers of sites located, their status and the names and addresses of individuals or organizations knowledgeable of the sites.

Policy (g): Maintain specific locations of unprotected sites as confidential information to avoid vandalism and the resultant irretrievable loss of the historic and prehistoric record of the community.

Policy (h): Determine the proper disposition of each historical site prior to approval of zoning or discretionary development applications. Disposition determinations shall be based upon a detailed historical report, including an inventory form, a written evaluation, and slides documenting the building and its location. This information shall be reviewed by staff and the approval authority for discretionary development cases. Each historical report shall be filed at the Irvine Historical Museum and the City of Irvine Community Development Department.

Policy (i): Buffer and protect the integrity of an historic site and/or resources contained therein, if the Planning Commission, during review of a discretionary development case, determines preservation is required.

Objective E-2. Evaluate surveyed sites for their present and potential cultural educational, recreational, and scientific value to the community and region, and determine their proper disposition prior to the approval any project which could adversely affect them.

Policy (a): Ensure that sites determined to be significant are protected through the City's planning policies, ordinances, approval conditions, and mitigation measures.

Policy (b): Encourage the nomination of significant historical sites to the National Registry of Historic Places.

Policy (c): Include sites which are appropriate for educational or recreational purposes as an integral part of either public or community facilities or as part of the Citywide bikeway, pedestrian, and equestrian trail systems. Encourage agencies, organizations, and individuals to develop interpretive and educational programs in order to properly utilize the site for the benefit of the entire community.

Policy (d): Ensure that appropriate staff is available to act in matters relating to the implementation of this element to include identification of costs, and to coordinate the investigation and disposition of sites between City departments and Commissions, The Irvine Company, and other agencies, institutions, organizations, and individuals.

Policy (e): Determine the methods and means of preservation on a case-by-case basis according to a site's importance and disposition methods available. These may include public or private acquisition or one of the following, provided extreme care is exercised not to adversely affect the site:

- Including the site within greenbelts, parks, open space spines, preservation areas or other open space.
- Covering surface or sub-surface sites by adequate fill, pavement, or buildings.
- Using the site for nondestructive public interest or educational purposes, such as museums, interpretive centers, or outdoor classrooms
- Moving buildings for preservation as part of a consolidated historic site.
- Using significant historic buildings in a preserved state as a part of their functional capacity (e.g., a building preserved and used as an office, restaurant, or home)

Policy (f): Encourage site preservation through economic incentives such as increased building densities, reduced taxes, credit toward park dedication, or reduction of other amenity requirements. Where incentives are not sufficient, the land owner shall be directly compensated by the City or other public or quasi-public agencies or organizations for land preserved as an archaeological, paleontological, or historical site. The costs of site preservation may be the principal responsibility of the City, other public, or quasi-public agencies, or other organizations.

Policy (g): Ensure that adverse impacts of a proposed project on cultural resources are mitigated in accordance with CEQA, as well as other appropriate City policies and procedures, where preservation of a significant site is not practical.

Policy (h): Assign the Community Services Commission the responsibility to oversee implementation programs for sites or buildings which have been acquired by the City.

Policy (i): Identify and implement revenue sources which can be expended in support of this objective.

Policy (j): Undertake a comprehensive survey to inventory the remaining historical resources within the City of Irvine incorporated territory and adopted Sphere of Influence, including the location and significance of all remaining tenant farm homes over 50 years of age. This survey shall be used to determine the appropriate disposition of the resources located within any area not designated for preservation as a historical resource.

### **1.3.5 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), 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 the 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 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.

## 1.4 PROJECT PERSONNEL

HELIX conducted a cultural resources survey in 2021/2022 to assess whether the project would have any effects on cultural resources. Kassie Sugimoto, M.A. served as the cultural resources task lead and as a co-author of this report. Ms. Sugimoto meets the qualification of the Secretary of Interior's Standards and Guidelines for archaeology. Trevor Gittelhough, M.A., RPA, conducted the field survey and served as the primary author of this report. Mx. Gittelhough meets the qualifications of the Secretary of Interior's Standards and Guidelines for archaeology and history. Mary Robbins-Wade, M.A., RPA provided overall project management support and senior technical review. Dustin Murphey from Payomkawichum Kaamalam, representing the Juaneño Band of Mission Indians, Acjachemen Nation, participated in the pedestrian survey. Resumes for key HELIX project personnel are presented in Appendix A.

## 2.0 PROJECT SETTING

### 2.1 NATURAL SETTING

The project area is situated within the coastal foothills of central Orange County. The project area is in the Tustin Plains in the western portion of the Peninsular Ranges geomorphic province of southern California. The Santa Ana mountains lie to the east, and the Santa Joaquin Hills lie to the west. Hicks Canyon Wash runs directly through the entirety of the project area. The elevation of the project area ranges from approximately 150 to 280 feet above mean sea level (AMSL).

The climate of central Orange County is characterized as a Mediterranean-like climate that has hot dry summers, with low humidity and rainfall. Almost all rainfall occurs between November and May, but the region can also experience rare, intense summer thunderstorms. Wind is also an important feature of this climatic regime, with cool mild breezes from the Pacific Ocean throughout the year, as well as strong, dry winds in excess of 25 miles per hour in the late winter and early spring (National Oceanic and Atmospheric Administration [NOAA] 2014).

The project area is characterized predominantly by urban development comprised of residential developments and infrastructure. Areas immediately surrounding the project area include residential and recreational development, including homes, schools, and parks. Peters Canyon Wash is to the north, Aliso Creek is to the south, and Santiago Creek is to the north and east.

Geologically, the project area is located in the broad plain of Orange County known as the Tustin Plain, the entirety of which is underlain by middle to late Pleistocene older alluvium (Morton et al. 1999). Two soil series are mapped for the project site: Mocho sandy loam (0 to 2 percent slopes) and San Emigdio fine sandy loam (0 to 2 percent slopes). The Mocho sandy loam is found across the majority of the project site, while San Emigdio fine sandy loam is located in the far eastern portion of the project area (Natural Resources Conservation Service n.d.). Both soil series are sedimentary-derived alluviums, primary comprised of sandstone and shale, and are found on alluvial fans, floodplains, and narrow valleys that generally support riparian shrubs, forbs, and grasses, along with various species of trees (Hall 2007). Various drainages in the vicinity, including Hicks Canyon itself, would have made fresh water easily accessible to native populations living in the area.

Prehistorically, the natural vegetation in the project vicinity likely consisted of coastal sage scrub and riparian, grassland, along with chamise chaparral, baccharis scrub, and southern willow scrub.

Prehistorically, plants of the coastal sage scrub community; California sagebrush (*Artemisia californica*), white sage (*Salvia apiana*), flat-top buckwheat (*Eriogonum fasciculatum*), broom baccharis (*Baccharis sarothroides*), wild onion (*Allium haematochiton*), laurel sumac (*Malosma laurina*), golden-yarrow (*Eriophyllum confertiflorum*), sawtooth goldenbush (*Hazardia squarrosa*), yucca (*Yucca schidigera*, *Hesperoyucca whipplei*), prickly pear cactus (*Opuntia* sp.), and scrub oak (*Quercus dumosa*) would likely have covered most of the hills and canyons in the area interspersed with areas of native grasslands (*Stipa*, *Elymus*, *Poa*, *Muhlenbergia*) (Munz 1974). Prior to historic and modern activities, Hicks Canyon Creek and adjacent drainages such as Rattlesnake Canyon Wash and Peters Canyon wash, as well as the San Diego Creek, contained extensive stands of the riparian community with plants such as western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*) and willow (*Salix* sp.) (Munz 1974).

Major wildlife species found in this environment prehistorically were coyote (*Canis latrans*); mule deer (*Odocoileus hemionus*); grizzly bear (*Ursus arctos*); mountain lion (*Felis concolor*); rabbit (*Sylvilagus audubonii*); jackrabbit (*Lepus californicus*); and various rodents, the most notable of which are the valley pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), and dusky footed woodrat (*Neotoma fuscipes*) (Head 1972). Rabbits, jackrabbits, and rodents were very important to the prehistoric diet; deer were somewhat less significant for food, but were an important source of leather, bone, and antler. Many of the plant species naturally occurring in the project area and vicinity are known to have been used by native populations for food, medicine, tools, ceremonial, and other uses (Timbrook 2007).

## 2.2 CULTURAL SETTING

### 2.2.1 Prehistoric Period

Archaeological research in Southern California has identified several distinct chronological sequences that are used to understand cultural shifts within the region. Wallace (1955, 1978) developed a prehistoric chronology for the southern California coastal region that was built on early studies and data synthesis, which is widely used to this day and is also applicable to many near-coastal and inland areas. Divided into four distinct periods, Wallace’s prehistoric sequence is as follows: Early Man, Milling Stone, Intermediate Prehistoric, and Late Prehistoric. Though the sequence originally did not have a high level of chronological precision from the lack of absolute date information (Moratto 1984), this has been alleviated by the plethora of radiocarbon dates that have been collected in the past four decades by southern California researchers (Byrd and Raab 2007). Since its creation, several revisions have been made to Wallace’s (1955) synthesis using these dates, as well as projectile point assemblages (e.g., Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994).

Chronological Period	Characteristics	Date Range
Early Man	Diverse mixtures of subsistence combining hunting and gathering but with a greater emphasis on hunting in many places.	Circa 10,000–6000 BC
Milling Stone	Subsistence strategies shift from hunting/gathering to those centered on collecting plant foods and the hunting of small animals. Begin to see both extended and loosely flexed burials.	6600–3000 BC

Chronological Period	Characteristics	Date Range
Intermediate	Shifts in strategies to a heavier emphasis on maritime subsistence strategies, along with a wider use of plant foods, that trend towards adaptations to regional and local resources. Fully flexed burials, often placed face-down or face-up, and oriented toward the north or west.	3000 BC– 500 AD
Late Prehistoric	The increased usage of bow and arrow technology, a matching increase in land and sea mammal hunting, along with the continuation of wide-ranging uses of plant foods. Both the diversity and complexity of material culture increases dramatically. Increase in populations, accompanied by the presence of larger, more permanent villages.	500 AD–Historic Contact

Proposed dates for the earliest human occupation in California vary from around 20,000 years ago to 10,000 years ago. Several researchers have argued for the presence of Pleistocene humans in California at much earlier dates (Carter 1957, 1978, 1980; Minshall 1976); however, these sites are all controversial. The material from the sites is generally considered non-artifactual, and the investigative methodology is often questioned (Moratto 1984). The most widely recognized timeline for the prehistory of Southern California was proposed by Wallace (1955) and divides the region’s prehistory into four main periods, or “horizons”: Early, Milling Stone (Archaic Period), Intermediate, and Late Prehistoric horizons.

The best example of Early Prehistoric Period archaeological evidence in Southern California is in the San Dieguito complex of San Diego County, dating to over 9,000 years ago (Warren 1967). The San Dieguito Tradition is thought by most researchers to have an emphasis on big game hunting and coastal resources (Warren 1967). The material culture of the San Dieguito complex consists primarily of scrapers, scraper planes, choppers, large blades, and large projectile points. In some areas of California, the Early Prehistoric Period is often referred to as the Paleo-Indian period and is associated with the last Ice Age occurring during the Terminal Pleistocene (pre-10,000 years ago) and the Early Holocene, beginning circa 10,000 years ago (Erlandson 1994, 1997).

The Milling Stone Horizon, or Archaic Period, dates from 7,000-8,600 to 1,300-3,000 years ago and is generally consistent with the Oak Grove complex of Santa Barbara, the Topanga complex of Los Angeles, and the La Jolla complex of San Diego. The Milling Stone Horizon is also referred to as the Encinitas Tradition (Warren 1968). The Encinitas tradition is generally “recognized by millingstone assemblages in shell middens, often near sloughs and lagoons” (Moratto 1984:147). According to Wallace, “a changeover from hunting to the collection of seed foods is clearly reflected in the archaeological record for the period between 6000 and 3000 BC. The importance of seeds in the diet of the prehistoric peoples can be seen in the numbers of food-grinding implements present at their settlements” (Wallace 1978:28). Basin metates, manos, discoidals, a small number of Pinto series and Elko series points, and flexed burials are also characteristic. Most of the archaeological evidence for Archaic Period occupation in southern California is derived from sites located in near-coastal valleys, and around estuaries that are present along the San Diego coast (Warren 1968). In Orange County, the Archaic Period occupation is represented by diagnostic artifacts and radiocarbon dates identified at sites situated within Irvine, such as CA-ORA-64, as well as sites with radiocarbon dates associated with the Newport Coast Archaeological

Project (Masson and Peterson 1994). These investigations yielded radiocarbon dates between 8000 – 6000 Before Present (BP) (Koerper and Drover 1983). The artifacts considered most diagnostic of this period within Orange county are the cogged stone, a ground stone object with gear-like teeth, and discoidals.

Dates for the Intermediate Horizon vary by locale but can generally be dated to between 3,000 BC and 500 AD (Elsasser 1978). The Intermediate Horizon is consistent with the Hunting Culture of Santa Barbara County and is characterized by the presence of Pinto style points, named after the Pinto Basin in Riverside County, an increased use of the mortar and pestle, and the consumption of fleshier foods such as acorns as opposed to small, hard seeds (Stickel 1978). This change resulted in the adoption of a more sedentary lifestyle, as seen in the presence of seasonal campsites (Van Horn 1980).

The Late Prehistoric period in southern California is characterized by the incursion of Uto-Aztecan - speaking people who occupied large portions of the Great Basin and an area stretching from southern Arizona and northwest and central Mexico into Nevada, Oregon, and Idaho (Miller 1986), based on archaeological and linguistic evidence. The expansion of the Takic group into southern California is unrefined, but several scholars have hypothesized as to when and how the so-called “Uto-Aztecan wedge” occurred. Sutton (2009) argues that the Takic group expanded into southern California from the San Joaquin Valley about 3,500 years ago. Moratto (1984) also proposes that Takic expansion into the Southern Coast region correlates to the end of the Early Period (Late Archaic) ca. 3,200 to 3,500 years ago, while Golla (2007) suggests an expansion of Uto-Aztecan speakers into southern California at approximately 2,000 years ago. While the exact chronology of Takic-speaking groups’ immigration to southern California remains uncertain, the beginning of the Late Prehistoric Period is marked by evidence of a number of new tool technologies and subsistence shifts in the archaeological record and is characterized by higher population densities and intensification of social, political, and technological systems. The changes include the production of pottery and the use of the bow and arrow for hunting instead of atlatl and dart, a reduction of shellfish gathering in some areas, an increase in the storage of foodstuffs such as acorns, and new traits such as the cremation of the dead (Gallegos 2002; McDonald and Eighmey 1998).

It must be noted that interpretations by archaeologists and linguistic anthropologists may differ from the traditional knowledge of the Indigenous people. Tribal creation stories generally indicate that the Indigenous people have always been here, not migrating from elsewhere.

Native American population figures in the region substantially increased toward the end of the Late Prehistoric Period. After 1600 AD., a change occurred in settlement and subsistence patterns, and land use intensified region, which was reflected into the ethnohistoric period (Wilke 1974, 1978; Bean et al. 1991; Goldberg 2001).

## **2.2.2 Ethnohistory**

### **2.2.2.1 Gabrielino**

The project site is located within the region that has traditionally been occupied by the Gabrielino people (also spelled as Gabrieleno or Gabrieleño; Bean and Smith 1978:538; Kroeber 1925: Plate 57). Other Indigenous groups in the surrounding areas include the Juaneño-Acjachemen and Luiseño to the south; the Fernandeño, Chumash, and Tataviam/Alliklik to the northwest; and the Serrano to the north



and northeast. Interactions between these groups are well-documented, comprised primarily of trade and intermarriage.

The name Gabrielino identifies the Indigenous people who were administered by the Spanish missionaries settled at Mission San Gabriel. This group is now considered to have a regional dialect of the Gabrielino language, along with the Santa Catalina Island and San Nicolas Island dialects (Bean and Smith 1978:538). In the post-European contact period, Mission San Gabriel included natives of the greater Los Angeles area, while also including members of surrounding Indigenous groups from other areas, such as Kitanemuk, Serrano, and Cahuilla. There is little evidence that the people we call Gabrielino had a broad term for their group (Dakin 1978:222); rather, they identified themselves as an inhabitant of a specific community with locational suffixes (e.g., a resident of Yaanga was called a Yabit, much the same way that a resident of New York is called a New Yorker; Johnston 1962:10).

Several native words have been suggested as labels for the broader group of Indigenous people from the Los Angeles region. These include Tongva (or Tong-v; Merriam 1955:7–86) and Kizh (Kij or Kichereno; Heizer 1968:105), though evidence indicated that these terms referred to local places or smaller groups of people within the larger group that we now call Gabrielino. Nevertheless, many present-day descendants of these people have taken on Tongva as a preferred group name because it has a native rather than Spanish origin (King 1994:12). Thus, the term Gabrielino/Tongva is used in the remainder of this report when discussing the Indigenous people of the Los Angeles Basin and their descendants.

The Gabrielino/Tongva subsistence economy was centered on hunting and gathering. Due to the rich and varied nature of their environment, the Indigenous population exploited mountains, foothills, valleys, deserts, riparian, estuarine, and open and rocky coastal eco-niches. Acorns served as the staple food, supplemented by the roots, leaves, seeds, and fruits of a variety of flora (e.g., islay, cactus, yucca, sages, and agave). Freshwater and saltwater fish, shellfish, birds, reptiles, and insects, as well as both large and small mammals, were also hunted or collected and served as a large part of their diet (Bean and Smith 1978:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

A wide variety of tools and implements were used by the Gabrielino/Tongva to gather and collect food resources. These included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks for hunting and fishing. Those groups located near the ocean used oceangoing plank canoes, or *ti'at*, and tule balsa canoes for fishing, travel, and trade between the mainland and the Channel Islands (McCawley 1996:7). Gabrielino/Tongva people processed their resources with a variety of tools, including hammerstones and anvils, mortars and pestles, manos and metates, strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks. Food was likewise consumed from a variety of vessels, with Catalina Island steatite used to make ollas and cooking vessels (Blackburn 1963; Kroeber 1925:629; McCawley 1996:129–138).

At the time of Spanish contact, the basis of Gabrielino/Tongva religious life was the Chinigchinich cult, centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and also taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925:637–638). The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the southern Takic groups even as Christian missions were being built and may represent a mixture of native and Christian beliefs and practices (McCawley 1996:143–144).

The burial practices of the Gabrielino/Tongva included both burials and cremations, with inhumation the more common practice on the Channel Islands and the adjacent mainland coastal areas, while cremation was the primary practice on the remainder of the coast and through the inland areas (Harrington 1942; McCawley 1996:157). Remains were buried in distinct burial areas, sometimes associated with villages and sometimes with no clear village association (Altschul et al. 2007). Cremation ashes have been found in archaeological contexts buried within stone bowls and in shell dishes (Ashby and Winterbourne 1966:27), as well as scattered among broken ground stone implements (Cleland et al. 2007). Archaeological data corresponds with ethnographic descriptions of an elaborate mourning ceremony that occurred over several days and included a variety of offerings, such as seeds, stone grinding tools, animal skins, baskets, wood tools, shell beads, bone and shell ornaments, and projectile points and knives. Offerings varied, both with the sex of the deceased individual as well as their status (Dakin 1978:234–365; Johnston 1962:52–54; McCawley 1996:155–165).

### **2.2.2.2 Juaneño-Acjachemen**

Boundaries between different Indigenous groups are fluid, moving as groups gain and lose status and power. The Juaneño-Acjachemen are the next closest Indigenous group near the project, and their territory was historically located south of Aliso Creek, west of Temescal Creek, and north of Oceanside. The language, culture, and territory of the Juaneño people and their neighbors to the south and east, the Luiseño, are so closely related that the two have sometimes been considered to be a single ethnic nationality (Bean and Shipek 1978; White 1963). However, Luiseño and Juaneño individuals consider themselves to be separate tribes, and Cameron (1987:319-321) noted archaeological differences between the two peoples. The name “Juaneño” was applied by the Spanish to the people indigenous to the area of Mission San Juan Capistrano, from whence the name comes, and is often used today; although, tribal members prefer to identify themselves as Acjachemen (Juaneño Band of Mission Indians 2016). They spoke Juaneño, a Takic language of the Uto-Aztecan language family closely related to Luiseño, Cahuilla, and Cupeño (The Regents of the University of California 2016). A thorough account of Juaneño life and especially ritual thought and practice was recorded in Chinigchinich by Father Geronimo Boscana, a Spanish Friar who lived at Mission San Juan Capistrano and wrote his account sometime between the Mission’s founding in 1776 and his death in 1831 (Boscana 1947 [1846]; Robinson 1947 [1846]). Subsequent examination of the linguistic evidence in this record suggests that it was heavily influenced by the Gabrielino to the north; however, whether this influence was due to precontact cultural transmission or author error is unknown (Kroeber 1925: 636).

## **2.2.3 Historical Background**

### **2.2.3.1 Spanish Period**

The first European explorers to reach southern California were the members of Juan Rodriguez Cabrillo’s 1542 expedition. Between that time and 1769, Spanish, British, and Russian explorers made only limited excursions into Alta (upper) California, and none established permanent settlements in the region (Starr 2007).

In 1769, the San Diego Presidio was established by Gaspar de Portolá, marking the first Spanish settlement in Alta California. At the same time, Mission San Diego de Alcalá was established by the Franciscan Father Junipero Serra, the first of 21 missions built by Spanish Franciscan monks in Alta California between 1769 and 1823. Portolá proceeded north, exploring the Tustin Plain, before passing through the Los Angeles Basin, heading through the San Fernando Valley, then reaching the San

Francisco Bay on October 31, 1769. On September 4, 1781, 12 years after Portolá's initial visit, a dozen families from Sonora, Mexico, founded El Pueblo de la Reina de los Angeles de la Porciúncula ("The Town of the Queen of Angels on the Portiuncula River"; or simply El Pueblo de la Reina de los Angeles, "The Town of the Queen of Angels") under the specific directions of Governor Felipe de Neve.

The Portolá expedition marked the beginning of Spanish military supply routes that serviced the newly established missions, including the Missions San Gabriel de Arcángel (1771) and San Juan Capistrano (1776), which were the first permanent European settlements in the area. Almost immediately, the Franciscan padres began attempts at converting the local Indigenous populations to Christianity through baptism, as well as relocating them to mission grounds (Engelhardt 1927). Most of the Indigenous population in the Los Angeles Basin, as well as the surrounding foothill and mountain ranges, was persuaded or forced to settle near the San Gabriel Mission, while those from outside the basin were relocated to San Juan Capistrano Mission. These included Tataviam, Chumash, the Gabrielino, the Serrano, many Cahuilla as far as the Coachella and San Jacinto valleys, Juaneño-Acjachemen, and Luiseño of the San Jacinto Valley, as well as Indigenous groups from the southern Channel Islands.

### 2.2.3.2 Mexican Period

The primary focus of the Spanish during their occupation of California was the construction of the mission system and associated presidios for the purpose of integrating the Native American population into Christianity. While there were incentives provided by the Spanish monarchy to entice settlers to pueblos or towns, only three pueblos were established during the Spanish period, of which only two were successful and remain as California cities (San José and Los Angeles). Several factors hindered growth within Alta California, including the threat of foreign invasion, political dissatisfaction, and unrest among the Indigenous population. In 1821, after more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain. A year later, in 1822, the Mexican legislative body in California ended the Spanish isolationist policies of the region, and decreed California ports open to foreign merchants.

Although Mexico gained its independence from Spain, 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. Beginning in the 1820s, extensive land grants were established in the interior, partly to increase the population inland and away from the more settled coastal areas where the Spanish had concentrated their colonization efforts. Furthermore, the secularization of the missions in 1834 resulted in the subdivision of former mission lands and the establishment of additional ranchos. These massive swaths of land were granted to prominent and well-connected individuals as ranchos, 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. During the age of the ranchos (1834–1848), landowners focused their resources on the cattle industry and devoted large tracts to grazing. Cattle hides were the primary southern California export during this time, used to trade for goods from the east and other areas in the United States and Mexico. The influx of explorers, trappers, and ranchers associated with the land grants increased the number of non-native inhabitants of the region, and this rising population contributed further to the decimation of the Indigenous population, from the introduction and rise of diseases foreign to them, and from the violence enacted against them.

### 2.2.3.3 American Period

The United States took control of California in 1846, seizing Monterey, San Francisco, San Diego, and Los Angeles with little resistance. Los Angeles soon slipped from American control, however, and needed to be retaken in 1847. Approximately 600 U.S. sailors, Marines, Army dragoons, and mountain men converged under the leadership of Colonel Stephen W. Kearney and Commodore Robert F. Stockton in early January of that year to challenge the California resistance, which was led by General Jose Maria Flores. The American party scored a decisive victory over the Californios in the Battle of the Rio San Gabriel and at the Battle of La Mesa the following day, effectively ending the war and opening the door for increased American immigration (Harlow 1992:193–218). Hostilities officially ended with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico \$15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming, representing nearly half of Mexico’s pre-1846 holdings.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. territories (Wilkman and Wilkman 2006:15). Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through the 1850s. The Gold Rush began in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. With most miners drawn to central California by its well-known strikes, Los Angeles County attracted people who were largely peripheral to the Gold Rush. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed that region’s burgeoning mining and commercial boom. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains when available. The cattle boom ended for southern California as neighboring states and territories drove herds to northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 1941).

California’s acquisition by the United States substantially increased the growth of the population in California. The California gold rush, the end of the Civil War, and the passage of the Homestead Act implementing the United States’ perceived “manifest destiny” to occupy and exploit the North American continent brought many people to California after 1848. While the American system required that the newly acquired land be surveyed prior to settlement, the Treaty of Guadalupe Hidalgo bound the United States to honor the land claims of Mexican citizens who were granted ownership of ranchos by the Mexican government (Lech 2004). The Land Act of 1851 established a board of commissioners to review land grant claims, and land patents for the land grants that were issued from 1876 to 1893.

Initially, southern California was divided into only two counties: Los Angeles and San Diego. In 1853, San Bernardino County was added, placing what is now Riverside County primarily within San Diego County and partially within San Bernardino County. Orange County was divided from Los Angeles County in 1889.

### 2.2.3.4 Orange County

The earliest European to see what would become Orange County were the members of the Juan Rodriguez Cabrillo expedition of 1592, when they sailed along the coast but did not explore inland. It wasn’t until Lt. Colonel Gaspar de Portola led an overland expedition from San Diego to San Francisco in 1769, that Europeans entered the region. The expedition passed along the foothills just to the east of

the project area, possibly passing through the project area itself, naming canyons and other geographic features as they proceeded. Among these were the Arroyo de Santa Magdalena (San Juan Creek) and Trabuco Canyon of the Santa Ana Mountains (Crespi in Brown 2001:301–307). It was just over five years later, in 1776 that the first permanent Euro-American settlement was established in the county, when the San Juan Capistrano Mission was constructed where the El Camino Real crossed San Juan Creek. The mission was later moved to its present location in 1778.

With the founding of Mission San Gabriel to the north in 1771, the use of Indigenous trails along Oso Creek became the major land route used by Europeans. This route brought increased traffic through the territories of the Juaneño/Acjachemen and Gabrielino/Tongva, as well as past Mission San Juan Capistrano. The same route continued to be used as the El Camino Real, Highway 101, Interstate 5, and the railroad. The surrounding areas were heavily used for cattle grazing and agriculture beginning at this time and extending until recently, when development has reduced the available land for these activities.

Beginning in the late 1830s, the Mexican government was inundated with requests for rancho land from various administrative districts. Almost the entirety of what is now Orange County was divided among over 15 different ranchos, with the project area located within the boundaries of Rancho Lomas de Santiago and bordered by Rancho Santiago de Santa Ana to the north, and Rancho San Joaquin to the west (State Lands Commission 1982). Teodosio Juan Yorba was granted the lands of Rancho Lomas de Santiago by Governor Pio Pico in 1846. This rancho was patented to Teodosio Yorba in 1868 by the Public Land Commission, and he later sold it to William Wolfskill who then sold it to Benjamin and Thomas Flint, Llewellyn Bixby, and James Irvine, where it eventually became part of the Irvine Ranch.

### **2.2.3.5 History of the Project Area**

The project area is located within the communities of Northwood Point and Northwood, in what was once Rancho Lomas Santiago, and then the Irvine Ranch. Until the 1970s, the area was used for ranching and agriculture. Northwood is located south of Hicks Canyon Wash, while Northwood Pointe is located north of the wash. Northwood started out as land owned by ranch employees of the Irvine Ranch and was developed beginning in 1977. Because of this, this community is the only community within the Irvine area that was developed independently of the Irvine Company. Northwood Pointe, however, was developed in the 1990s by the Irvine Company as a companion neighborhood to Northwood. Historic maps and aerials show the area as entirely undeveloped until 1938, when the areas to the south and west of the Hicks Canyon Wash were developed into orchards. This expanded to the entire area by 1963, and by 1980 the area to the south of Hicks Canyon Wash was a residential development. In 1995 the area north of Hicks Canyon Wash began to be developed, and by 2001, the entire area was completely developed with residential neighborhoods.

## **3.0 ARCHIVAL RESEARCH AND CONTACT PROGRAM**

### **3.1 RECORDS SEARCH**

HELIX staff requested a record search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) on October 1, 2021. The records search covered a one-mile radius around the project area and included the identification of previously recorded cultural

resources and locations and citations for previous cultural resources studies. A review of the California Historical Resources and the state Office of Historic Preservation (OHP) historic properties directories, and Local Register was also conducted. The records search summary and map are included as Appendix B (confidential appendices, bound separately). The results of the records search were received on December 7, 2021.

### 3.1.1 Previous Surveys

The records search results identified 13 previous cultural resource studies within the record search limits, 11 of which overlap with the project area (Table 1, *Previous Studies within One Mile of the Project Area*). Eight of the studies were archaeological field studies, two were literature studies, one was a monitoring report, one was a management and planning report, and one was an annual report. These reports are summarized below in Table 1, with a notation regarding those 11 reports that overlap or intersect a portion of the project area.

**Table 1**  
**PREVIOUS STUDIES WITHIN ONE MILE OF THE PROJECT AREA**

Report Number (OR-)	Year	Author	Report Title
00142*	1976	Roger J. Desautels	Archaeological Survey Report on the North Irvine Assessment District Located in The "Frances" Area of the City of Irvine, California.
00252*	1978	Roger J. Desautels	Cultural Resources Report- Preliminary Assessment on the Proposed San Diego Creek Watershed Erosion and Sedimentary Control System in Hicks Canyon, Hicks Canyon Wash, Rattlesnake Creek Wash, San Diego Creek, and the San Joaquin Marsh Located in Orange County
00305*	1979	Adella Schroth	The History of Archaeological Research on Irvine Ranch Property: the Evolution of a Company Tradition
00752*	1984	Roger D. Mason	Eastern Corridor Alignment Study, Orange County, California; Volume II: Prehistory and History
00762*	n.d.	Michael L. Ahlering	A Discussion of Scientific Cultural Resources in Relation to the North Irvine Precise Land Use Plan
00847*	1985	Beth Padon	Archaeological Resource Inventory City of Irvine and its Sphere of Influence
01394*	1994	Paul G. Chace	A Cultural Resources Survey for the Northwood Point Planned Community (Northwood 5), County of Orange, Tentative Tract Map No. 14540
01625*	1997	Steven W. Conkling and Joan M. Medina	Results of Archaeological and Paleontological Monitoring of the Northwood 5 Development (Tentative Tract 14540), Lots 4 and 5, Irvine, California
02225*	1978	Hardy Strozier	The Irvine Company Planning Process and California Archaeology- A Review and Critique
02518	2001	Ronald M. Bissell	Peer Review of "A Phase I Cultural Resources Inventory for Planning Area 5b, Irvine, California", Dated 20 March 2001. Author, Christopher Drover, Ph.D. Prepared by The Keith Companies, Incorporated for the Irvine Community Development Company
02534*	1976	Archaeological Research Inc.	Annual Report to The Irvine Company from Archaeological Research, Inc.

Report Number (OR-)	Year	Author	Report Title
03314*	1976	Marie G. Cottrell	Results of Archaeological Survey on a 30-40 Acre Plot of Land at the Corner of Culver Drive and Hicks Canyon Wash, Orange County, California
03816	2001	Christopher Drover	A Phase I Cultural Resources Inventory for Planning Area 5B, Irvine, CA

\* Overlaps project area

### 3.1.2 Previously Recorded Resources

The SCCIC has a record of nine previously recorded cultural resources within a one-mile radius of the project, one of which is recorded as being partially within the project area (Table 2, *Previously Recorded Resources within One Mile of the Project Area*). The resource that has been documented partially within the project area is P-30-000513 (CA-ORA-513), described in further detail below. In general, the sites recorded within the one-mile search radius consist of prehistoric artifact scatters, as well as historic resources, consisting of canals, ranch and packing house structures, and refuse deposits. One multi-component site is recorded as a light lithic scatter and a small historic refuse scatter.

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

Primary Number (P-30-#)	Trinomial (CA-ORA-#)	Age	Description	Recorder, Date
000361	361	Prehistoric	Habitation site; noted in 2005 as no longer extant	Elliott and Houser, 1972; Fulton, 2005
000513*	513*	Prehistoric	Light artifact scatter; noted in later reports as having been destroyed	Rice and Cottrell, 1976
001238	1238/H	Multi-component	Extremely light lithic scatter and a small amount of historic refuse	Sorensen, Texier, Brown, and Fulton, 1990; Strudwick, King, Duke, and Schroth 1998
001755		Historic	Historic refuse deposits	Freeberg, 2015
100496		Prehistoric	Isolated mano	Breece, 1982
100498		Prehistoric	Isolated metate	Freeberg, 2015
161858		Historic	Irvine Ranch Complex	Cannon, 1982
176748		Historic	Highline Canal	Sawyer, 2003
176808		Historic	Frances Packing House	Unknown, 1977; Lusigana, 2006

\* Within project area

#### 3.1.2.1 P-30-000513 (CA-ORA-513)

Site P-30-000513 (CA-ORA-513) is a prehistoric site identified and recorded in 1976 by Glenn Rice and Marie Cottrell. Located along the southern edge of Hicks Canyon Wash, it was described as a light artifact scatter covering “less than 5000 sq ft”. Artifacts identified included two chert cores, debitage, and shell, though the shell may have been introduced by the agricultural activities present at the time

and in the past. The site has not been re-recorded and has likely been destroyed by the residential development that occurred at the end of the twentieth century. A 1978 report indicated, “The archaeological site no longer exists. The site location was rechecked in the field by SRS; the area has been bulldozed and/or filled” (Scientific Resources Surveys, inc. [SRS] 1978:8. A 1984 report indicated that CA-ORA-513 had been destroyed by development (SRS 1984:Table 3).

## 3.2 OTHER ARCHIVAL RESEARCH

Various additional archival sources were also consulted, including historic topographic maps and aerial imagery. These include historic aerials from 1931, 1938, 1946, 1952, 1963, 1972, 1980, 1992, and 2000 (NETR Online 2021) and several historic USGS topographic maps, including the 1896 and 1901 Santa Ana (1:62,500), the 1932 Tustin (1:31,6800), and the 1948, 1965, and 1981 Tustin (1:24,000) topographic maps. The purpose of this research was to identify historic structures and land use in the area.

No buildings appear in the project area or adjacent to it on the 1896 or 1901 Santa Ana quadrangles; however, there is a road to the west of the project area, and in the 1901 quadrangle, a road bisects the project area. The 1932 Tustin quadrangle records show that the area had been divided by several lots with numerous dirt roads both in the vicinity of and bisecting the project area, while the 1948 Tustin quadrangle indicates that everything south and west of the project area was agricultural land. By the 1965 Tustin quadrangle, the entire project area was within agricultural lands, but by the 1981 Tustin quadrangle, everything south of the project area has been developed into the residential neighborhood of Northwood. Historic aerials show the same progress of development throughout the years, showing that Northwood was developed by at least 1980, and development north of the project area began to be developed by 1995.

## 3.3 NATIVE AMERICAN CONTACT PROGRAM

HELIX contacted the Native American Heritage Commission (NAHC) on October 4, 2021, for a Sacred Lands File search and a list of Native American contacts for the project area. The NAHC indicated in a response dated November 4, 2021, that the project area was positive for known sacred lands or Native American cultural resources. They recommended contact with the Juaneño Band of Mission Indians and the Juaneño Band of Mission Indians Acjachemen Nation – Belardes. They also attached a list of additional Native American tribes that may have knowledge of the cultural resources within the project area. Letters were sent on November 11, 2021, to Native American representatives and interested parties identified by the NAHC. As of the completion of this report, no responses have been received. If any responses are received, they will be forwarded to City staff. Native American correspondence is included as Appendix C (confidential, bound separately). The Juaneño Band of Mission Indians, Acjachemen Nation provided a monitor for the survey fieldwork.

## 4.0 SURVEY

### 4.1 SURVEY METHODS

A pedestrian survey of the project site was conducted on December 17, 2021, by HELIX archaeologist Trevor Gittelhough and Native American monitor Dustin Murphey of Payomkawichum Kaamalam, representing the Juaneño Band of Mission Indians, Acjachemen Nation. The project area was walked in transects spaced approximately five meters (m) apart. The project area is situated within an urban



environment comprised of residential development, with a maintained hiking path along the entire length of the project area.



Plate 1. Overview of the project area from Culver Drive, view to the northeast.

#### 4.1.1 Documentation

Cultural resources identified during the survey were updated on appropriate Department of Parks and Recreation (DPR) 523 forms. All completed DPR site forms were submitted to the SCCIC.

## 4.2 RESULTS

Visibility throughout the survey was excellent (76 to 100 percent), with only a few areas of grass dropping visibility to zero along the southern side of the survey area. Within Hicks Creek itself, visibility continued to be excellent, with occasional pockets of duff and water hindering visibility in some locations. Vegetation within the area was comprised of non-native trees and grass, with numerous eucalyptus stumps along either side of the creek bed, along with palo verde and pepper trees.

Sediment throughout the survey area consisted of brown to light brown silty sand with granitic inclusions, along with less than five percent granitic and quartzitic sub-angular gravels, cobbles, and rocks. The sediment is clearly disturbed, with up to three feet of fill in some locations along the creek, and has numerous fragments of PVC pipe mixed throughout out.

One archaeological site has been previously recorded along the edge of the project area. This site, P-30-000513 (CA-ORA-513), was reported in 1978 and in 1984 to have been destroyed by development, as discussed in Section 3.1.2, *Previously Recorded Resources*. During the current survey, a single piece of

marine shell was observed, as described below. In addition, throughout the creek, numerous concrete, pipe, and rock features were observable, consisting of pipes, drainages, retaining walls, dams, and bridges.

Maps of the project area and cultural resource locations are provided on Figure 4 (*Survey Results*) in Appendix D (confidential, bound separately). A copy of the DPR form update for P-30-000513 (CA-ORA-513) is included in Appendix E (confidential, bound separately).

#### 4.2.1 P-30-000513 (CA-ORA-513)

Site P-30-000513 (CA-ORA-513) was a prehistoric site identified and recorded in 1976 by Glenn Rice and Marie Cottrell. Located along the southern edge of Hicks Canyon Wash, it was described as a light artifact scatter; the only artifacts noted on the site record were two chert cores. Shell was also observed, but the site record noted it could be associated with agricultural activities. During the intensive pedestrian survey for the current project, a single fragment of *Chione sp.* was identified within the recorded boundaries of the site. No other cultural materials were observed, including the two cores. The area has been heavily disturbed, with a vast residential development constructed to the east, south, and north of the site, and a walking path has been created through the site's boundary. Furthermore, sediments indicate large amounts of disturbance or imported fill. It is likely that the majority of the site has been destroyed, as noted in previous reports (SRS 1978, 1984).



Plate 2. Overview of the mapped area of P-30-000513, view to the south.

#### **4.2.2 Other Resources, Objects, or Infrastructure**

Throughout the creek, numerous concrete, pipe, and rock features were observable, consisting of pipes, drainages, retaining walls, dams, and bridges. Although some of these features were likely constructed at the same time as the surrounding residential developments, others appear to be associated with older agricultural uses surrounding the project area. In one location, concrete and riprap were used to support the bottom and sides along a small portion of the creek. A historic study is currently underway to address these features and will be provided under separate cover.

## **5.0 SUMMARY AND MANAGEMENT RECOMMENDATIONS**

A study was undertaken to identify cultural resources present in the Hicks Canyon Channel Restoration project area and to determine the effects of the project on historical resources per CEQA and historic properties per the NHPA. The cultural resources survey found that a previously recorded site, P-30-000513 (CA-ORA-513), no longer exists within the project area; it was previously described as having been destroyed by development (SRS 1978, 1984).

While the project area and vicinity remained relatively undeveloped until the 1960s, the area has since been highly disturbed by residential development, agricultural activities, utility installations, and roadway infrastructure. The majority of the project area is located along the Hicks Canyon Creek, which has been modified for use for storm drainage, as well as having an established and manicured trail along its northern edge.

In summary, the current study did not identify any archaeological resources within the project area that meet the criteria for listing on the CRHR or the NRHP; thus, no effects to historical resources or historic properties have been identified in terms of archaeology. Historic built environment resources are addressed in a separate study.

### **5.1 MANAGEMENT RECOMMENDATIONS**

Based on the results of the current study, no significant archaeological resources will be adversely affected by the project. However, as noted by the NAHC, the area is sensitive for cultural resources. Additionally, the project site is located within alluvial soils, where there is a potential for buried cultural resources, along with the presence of imported fill soils which may have further buried resources.

Due to this potential, it is recommended that an archaeological and Native American monitoring program be implemented for grading and other ground-disturbing activities. The monitoring program would include attendance by the archaeologist and Native American monitor at a pre-construction meeting with the grading contractor and the presence of archaeological and Native American monitors during initial ground-disturbing activities 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 will coordinate with the Consulting Tribes and City staff to develop and implement appropriate mitigation measures.

In the unlikely 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 in order 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.

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# Appendix A

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Resumes

### Summary of Qualifications

Ms. Robbins-Wade has over 35 years of experience in both archaeological research and general environmental studies. She oversees the management of all of HELIX's archaeological, historic, and interpretive projects; prepares and administers budgets and contracts; designs research programs; supervises personnel; and writes reports. Ms. Robbins-Wade has managed or participated in hundreds of projects under the California Environmental Quality Act (CEQA), as well as numerous archaeological studies under various federal jurisdictions, addressing Section 106 compliance and National Environmental Policy Act (NEPA) issues. She has an excellent relationship with the local Native American community and the Native American Heritage Commission (NAHC). Ms. Robbins-Wade has worked in Southern California archaeology for most of her robust career. Her clients regularly include numerous government agencies, including the counties of San Diego, Imperial, Riverside, Orange, and Los Angeles and the cities of San Diego, Vista, Oceanside, Chula Vista, Carlsbad, La Mesa, Poway, Santee, Escondido, and others. She has conducted studies for many water districts/water agencies, Caltrans, SANDAG, U.S. Navy, SDG&E, UC San Diego, San Diego Community College District, various non-profits, and a variety of other entities. Although Ms. Robbins-Wade has extensive experience with public sector projects, most of her work has been for private developers. She has managed projects from monitoring of single-family home remodels to survey and data recovery programs for Specific Plan areas, large residential developments, and a variety of commercial projects. Work for public projects has ranged from constraints studies for pipeline alternatives to survey, testing, and monitoring programs for public projects, such as parks, roadways, and various utilities. Ms. Robbins-Wade has also managed a range of monitoring projects in the public sector, including the installation of a manhole in Old Town State Historic Park, an emergency pipeline repair in a culturally sensitive area, monitoring improvements to Highway 76 along the San Luis Rey River, and lengthy monitoring programs for sewer/water/storm water projects.

### Selected Project Experience

**1125 Cleveland Street- Cultural Resource** (2014 - 2014). Project Manager/Principal Investigator on a cultural resources study for a 15-unit residential townhome development in the City of Oceanside. Oversaw the cultural resources survey and the testing of a small archaeological site, completion of archaeological site record, and report preparation. Conducted Native American coordination. Work performed for Hallmark Communities, Inc.

### Education

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

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

### Registrations/ Certifications

Register of  
Professional  
Archaeologists  
#10294, 1991

County of San Diego,  
Approved CEQA  
Consultant for  
Archaeological  
Resources, 2014

NCTD, Roadway  
Worker ID #C02943,  
2015

Orange County  
Approved  
Archaeologist, 2016

Riverside County  
Approved Cultural  
Resources  
Consultant, 2017

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**11th and F Mixed Use Project** (2014 - 2014). Project Manager for a cultural resources study for a proposed mixed-use commercial and residential tower in downtown San Diego. Initial work included an archaeological records search and a historic study, including assessment of the potential for historic archaeological resources. Subsequent work included development of an archaeological testing plan. Testing has not yet been conducted. Work performed for the Richman Group of Companies.

**12 Oaks Winery Resort and Golf Community** (2015 - 2018). Project Manager/Principal Investigator for a cultural resources survey of approximately 650 acres for a proposed project in the County of Riverside. Oversaw background research, field survey, site record updates, Native American coordination, and report preparation. Met with Pechanga Cultural Resources staff to discuss Native American concerns. Worked with applicant and Pechanga to design the project to avoid impacts to cultural resources. Work performed for Standard Portfolio Temecula, LLC.

**28th Street between Island Avenue and Clay Avenue 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.

**Archaeological Testing for the F11** (2015 - 2017). Project Manager for a cultural resources study for a proposed mixed-use commercial and residential tower in downtown San Diego. Initial work included an archaeological records search and a historic study, including assessment of the potential for historic archaeological resources. Subsequent work included development and implementation of an archaeological testing plan, as well as construction monitoring and the assessment of historic archaeological resources encountered. Work performed for the Richman Group of Companies.

**Balboa Station Specific Plan Area First Screencheck PEIR** (2016 - 2017). Cultural Resources Task Manager for a Specific Plan that would provide the policy framework to establish transit-oriented development and multi-modal improvements within the Specific Plan area. One of the main objectives of the Specific Plan is to improve access to existing and future transit facilities. Oversaw background research, Native American outreach, cultural resources survey, and technical report in support of the PEIR. Work performed for RRM Design Group, with City of San Diego as the lead agency.

## Professional Affiliations

Society for American Archaeology

Society for California Archaeology

San Diego Archaeological Center

San Diego History Center

San Diego Museum of Man

San Diego County Archaeological Society

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**Batiquitos Lagoon Double Track Project** (2015 - 2015). Senior Archaeologist for the addition of a second main track along a 2.7-mile-long segment of the LOSSAN Rail Corridor in Encinitas and Carlsbad. Overseeing the Federal Communications Commission (FCC) Section 106 process for addition of antenna sites. Work performed for HNTB Corporation, with SANDAG as the local lead agency and Federal Transit Administration as the federal lead agency for the overall project, and FCC as the federal lead agency for the antenna sites.

**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.

**Brightwater Ranch** (2014 - 2015). Project Manager/Principal Investigator of a cultural resources study update for a residential development located on a 76-acre property in the Lakeside area of San Diego County. Oversaw updated research, report preparation, and Native American coordination. Work performed for County of San Diego.

**Buena Sanitation District Green Oak Sewer Replacement Project** (2016 - 2017). Project Manager/Principal Investigator for a cultural resources testing program in conjunction with a proposed sewer replacement project for the City of Vista. Oversaw background research, fieldwork, site record update, Native American coordination, and report preparation. Work performed for Harris & Associates, Inc.

**Burton Hawkins Monitoring** (2014 - 2015). Project Manager/Principal Investigator for cultural resources testing and monitoring program for a remodel project at a home in La Jolla. Overseeing the archaeological testing program, which includes monitoring of several phases of construction, cataloging and analysis, research, and report preparation (work is still underway). Native American coordination included working with Most Likely Descendant and forensic anthropologists addressing possible human remains. The home is in the Spindrift site, a significant cultural resource in terms of both archaeological importance and Native American cultural values. Work performed for John Hawkins.

**Cactus II Feeder Transmission Pipeline IS/MND** (2017 - 2018). Senior Archaeologist overseeing cultural resources survey and report for this proposed pipeline project, including background research and Native American outreach. Assisted EMWD with Native American consultation under AB 52. The project would construct approximately five miles of new 30-inch to 42-inch diameter new transmission pipeline to serve planned development in Moreno Valley. Work was performed for EMWD.

**Campo Creek Bridge** (2016 - 2017). Project Manager/Principal Investigator for the cultural resources monitoring program for this emergency bridge replacement project on SR-94 in southeastern San Diego County. The project area is very sensitive in terms of Native American cultural resources, as well as historic resources. Responsible for development and implementation of the monitoring and discovery plan. The project requires effective communication and coordination with construction crews, Caltrans staff, and Native American monitors. Work performed as a subconsultant to Flatiron, with Caltrans as the lead agency.

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Director of Cultural Resources

**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.

**Coastal Meander Trail (2014 - 2015).** Project Manager/Principal Investigator for a cultural resources monitoring program for a trail at Scripps Institution of Oceanography on the UC San Diego campus. The trail is located between two known archaeological sites. Oversaw construction monitoring, documentation of cultural resources encountered, site record update, and report preparation. Work performed for UC San Diego.

**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.

**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 requires 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.

**Elsinore Valley Municipal Water District Indirect Potable Reuse Feasibility Study (2016 - 2016).**  
**Near Term Water Supply Program – Professional Environmental Services (2016 - 2018).** Diamond Regional Lift Station and Pipeline Project (2016 - 2018). Project Manager/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 Leader/Principal Investigator for the cultural resources study for the proposed Ag Pipeline Conversion project, a three agency partnership between EVMWD, the City of Lake Elsinore, and the Riverside County Flood Control and Water Conservation District (RCFCWCD). The cultural resources study included a records search/literature review, Native American Heritage Commission correspondence, preparation of a report, and assisting the District with Native American outreach. Met with Pechanga Cultural Resources staff to discuss Native American concerns and alternative project alignments. Work performed EVMWD.

**Fox Tank Replacement EIR (2017 - 2018).** Senior Archaeologist for proposed project to construct a 1.0-million-gallon tank, as well as an on-site detention basin, paved access road, and other appurtenances. A

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12-inch-diameter transmission pipeline would be constructed and the existing Orange Tank demolished. Oversaw cultural resources survey and report, including background research and Native American coordination. Assisted EMWD with Native American consultation in accordance with Assembly Bill (AB) 52. Work was performed for EMWD.

**French Valley South Tract 30837 Project** (2015 - 2016). Principal Investigator for a 153-acre residential project in the unincorporated community of French Valley, Riverside County. Oversaw background research, field survey, site record updates, Native American coordination, and preparation of a cultural resources report update in support of wetland permitting. The project proposes construction of 312 single-family residences.

**Green Oak Villas Technical Reports** (2016 - 2016). Project Manager/Principal Investigator for a cultural resources survey and testing program for a proposed multi-family residential development in the City of Vista. Oversaw background research, field survey, testing, site record update, Native American coordination, and report preparation. Work performed for Providence Capital Group, Inc., with the City of Vista as the lead agency.

**Guava Street Bridge at Murrieta Creek Project** (2017 - 2018). Principal investigator for cultural resources monitoring and environmental compliance tasks for the City of Murrieta's Capital Improvement Program (CIP) #8323 Guava Street Bridge at Murrieta Creek project, which includes replacement of the existing Washington Avenue bridge over Murrieta Creek with a new bridge at Guava Street. Work was performed for Falcon Engineering Services with the City of Murrieta 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.

**Judson Potable Water Storage Tank and Transmission Pipeline IS/MND** (2016 - 2017). Senior Archaeologist for a project proposing to construct a 2.5-million-gallon potable water storage tank, approximately 3,000 linear feet of 18-inch-diameter transmission pipeline, a paved access road, a detention basin, and other associated utilities to support tank operation. Project work included background research in preparation for field survey and assistance with report preparation. Work performed for Eastern Municipal Water District.

**Lake Wohlford Dam** (2015 - 2015). Project Manager/Principal Investigator for a cultural resources survey for proposed dam replacement for the City of Escondido. Oversaw background research; field survey; recording eight previously undocumented sites and five isolates, as well as updating 14 previously recorded sites; report preparation; and Native American outreach. Provided input for location of staging areas and access routes. Coordinating with City, engineering consultant, and environmental consultant. Work performed for AECOM.



# Mary Robbins-Wade, RPA

## Director of Cultural Resources

**Lilac del Cielo** (2014 - 2014). Project Manager/Principal Investigator of a cultural resources survey for a proposed 56.07-acre residential development in the Bonsall area of northern San Diego County. Oversaw field survey, recording three previously undocumented sites, and report preparation. Responsible for Native American coordination. Previous study had been accepted by County staff, but USACE required a new cultural resources survey. Work performed for Glenn Lukos Associates.

**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 proposed Specific Plan includes residential and commercial use, Town Center, park and private recreation areas, senior center, school site, waste recycling facility, wastewater reclamation facility, active orchards, and other supporting infrastructure. 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.

**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.

**Moulton Niguel Water District Regional Lift Force Main Replacement** (2017 - 2018). Cultural Resources Task Lead for the replacement of a regional lift station force main operated by Moulton Niguel Water District (MNWD). The project comprises an approximately 9,200 linear foot alignment within Laguna Niguel Regional Park in Orange County, in an area that is quite sensitive in terms of cultural resources. HELIX is supporting Tetra Tech throughout the preliminary design, environmental review (CEQA), and final design, including permitting with applicable state and federal regulatory agencies. The cultural resources survey will inform project design, in order to avoid or minimize potential impacts to cultural resources. Overseeing background research and constraints analysis, Native American coordination, cultural resources survey, coordination with MNWD and Tetra Tech, and report preparation. Work performed for MNWD, as a subconsultant to Tetra Tech.

**Moreno Valley Tentative Tract Map 36760 Project** (2016 - 2016). Principal Investigator for a cultural resources survey of a 53-acre site in the City of Moreno Valley, Riverside County. Oversaw background

# Mary Robbins-Wade, RPA

## Director of Cultural Resources

research, field survey, site record updates, Native American coordination, and preparation of a cultural resources report. Project proposed construction of 221 single-family residences, including the installation of necessary utilities and new connecting roadways.

**Moulton Niguel Water Dis Pipeline Align** (2017 - 2018). Cultural Resources Task Lead for the replacement of existing potable water (PW) and recycled water (RW) pipelines by Moulton Niguel Water District (MNWD). The study area is situated within the Mission Viejo Country Club on the east side of the I-5 and MNWD's Wastewater Plant 3A in the western portions. The general area is sensitive for cultural resources. Overseeing background research and constraints analysis, Native American coordination, cultural resources survey, coordination with MNWD and Tetra Tech, and report preparation. Work performed for MNWD, as a subconsultant to GHD.

**Orange County Sanitation District Newhope-Placentia TSR, No. 2-72 B** (2016 - 2016). Cultural Resources Task Leader/Principal Investigator for a sewer replacement project located in the City of Anaheim in southern Orange County. The project proposed the replacement of 20,679 feet of existing 33- to 42-inch sewer pipes with 48- to 54-inch pipes within an existing alignment. Project work included a records search, field check, review of historic maps and aerial photographs, Native American outreach, and report authorship. Work performed for Orange County Sanitation District.

**Orange County Sanitation District Newhope-Placentia Trunk Sewer Replacement, No. 2-72A** (2015 - 2016). Cultural Resources Task Leader/Principal Investigator for a sewer replacement project located in the cities of Anaheim and Fullerton. The project proposed the replacement and upsizing of 12,300 feet pipeline along an existing 14,205-foot alignment. Project work included a records search, field check, review of historic maps and aerial photographs, and Native American outreach. Work performed for Orange County Sanitation District.

**Old Mission San Luis Rey Cemetery Expansion Project** (2016 - 2017). Project Manager/ Principal Investigator 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. Worked performed for Old Mission San Luis Rey, with the City of Oceanside as the lead agency.

**Otay Crossings Commerce Park EIR** (2016 - 2018). 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.

**Park Circle - Cultural Resources** (2014 - 2018). Project Manager/Principal Investigator of a cultural resources survey and testing program for a proposed 65-acre residential development in the Valley Center area of San Diego County. The project is located along Moosa Creek, in an area that is culturally sensitive to the Luiseño people. Overseeing background research, historic study, field survey, testing, recording archaeological sites and historic structures, and report preparation. Responsible for Native American outreach and coordination. The cultural resources study included survey of the project area,

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testing of several archaeological sites, and outreach and coordination with the Native American community, as well as a historic study that addressed a mid-20th century dairy barn and a late 19th century vernacular farmhouse. Work performed for Touchstone Communities.

**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.

**San Diego County Women's Detention Facility** (2014 - 2015). Leader/Principal Investigator for the construction monitoring program for the new Women's Detention Facility in Santee. The project site is in an alluvial setting on the south side of the San Diego River, in proximity to a recorded village site. Buried cultural resources were identified in the alluvial soils during monitoring. Other cultural material recovered was associated with the historic Edgemoor site. Prior to coming to HELIX, served as Cultural Resources Task Leader/Principal Investigator for archaeological survey and testing program for the project as a subconsultant to HELIX. Work performed for Balfour Beatty.

**Simpson Farms** (2014 - 2016). Project Manager/Principal Investigator in a cultural resources study update for a mixed-use development within a total disturbance area of approximately 75 acres in the unincorporated County of San Diego near the community of Jamul. Oversaw updated research, site recordation, historic analysis, testing/assessment of a previously undocumented archaeological site, report preparation, and Native American coordination. The project consists of 94 single-family dwelling units, a neighborhood commercial site, and related uses such as access roads, drainage facilities and open space. Historic research and a historic structures assessment is also part of this project. Work performed as subconsultant for Gotham Management, LLC, with County of San Diego as lead agency.

**SR-76 East Mitigation Monitoring - Cultural Monitoring** (2015 - 2018). 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. Overseeing field monitoring, report preparation, and monitor coordination with Caltrans field staff. Responsible for Native American coordination and coordination with Caltrans cultural resources staff. Work is being conducted for Caltrans and SANDAG.

**Aloft Hotel and Condominiums** (2017 - 2017). [aka Aloft Hotel and Condominium] Project Manager/Principal Investigator for a proposed private development located in the Old Town area of Temecula, Riverside County. The project entails conducting a cultural resources survey consistent with the requirements of CEQA and the standards of the City. Tasks include obtaining a records search from the Eastern Information Center, contacting the Native American Heritage Commission (NAHC) for a Sacred Lands File search, conducting tribal outreach to those tribes identified by the NAHC, conducting a field survey, including coordinating with a Native American monitor, and report preparation. Work is being performed for Herdman Architecture and Design with the City of Temecula as the lead agency.

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### **Upper San Gabriel Valley Municipal Water District Direct Reuse System Support (2015 - 2016).**

Cultural Resources Task Leader/Principal Investigator for a project developed to increase non-potable recycled water reuse. The project would include the construction of pipelines, booster stations, and a reservoir to extend non-potable recycled water service to portions of the cities of La Puente, Industry, South El Monte, El Monte, and Pico Rivera. The Project also includes plumbing modifications to convert existing water users' irrigation systems from potable water supply to the recycled water supply. Work for the project included records search and literature review, review of historic maps and aerial photographs, Native American outreach, supervision of the field survey, report authorship, and coordination with the State Water Resources Control Board. Work performed for Upper San Gabriel Valley Municipal Water District.

### **Upper San Gabriel Valley Municipal Water District Indirect Reuse Replenishment (2015 - 2017).**

Cultural Resources Task Leader/Principal Investigator for the construction of a pump station at the San Jose Creek Water Reclamation Plant (SJCWRP) West Plant and an approximately 9-mile, 36-inch pipeline from the SJCWRP pump station to the Santa Fe Spreading Grounds (SFSG). Project also includes four new groundwater monitoring wells that would be installed in the SFSG area. Work for the project included records search and literature review, Native American outreach, supervision of the field survey, supervision of the recording of the historic Santa Fe Dam, and report authorship. Work performed for Upper San Gabriel Valley Municipal Water District.

**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.

**Valiano Project (2015 - 2015).** Project Manager/Principal Investigator for a cultural resources survey and testing project for a proposed residential development in the County of San Diego. Oversaw background research, field survey and testing, Native American coordination, report preparation, and development of a data recovery plan. Managed coordination and field meetings with both Kumeyaay and Luiseño representatives. The study included historic structures evaluation, as well as archaeological research. Work performed for Integral Partners Funding, LLC.

**Villa Storia (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

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testing/assessment, and coordination with the Native American community. Work performed for Integral Partners Funding, LLC.

**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.

**Washington Road** (2017 - 2018). Project Manager/Principal Investigator for a cultural resources constraints analysis, historic study, and construction monitoring for a residential project in French Valley in Riverside County. The cultural resources study included historic background research and a field visit to assess a previously recorded historic archaeological site, preparation of a site record update, construction monitoring, documentation of isolated historic material encountered during monitoring, and preparation of a report for submittal to the County.

**Santa Margarita Water District 3A Water Reclamation Plant Tertiary Treatment Expansion** (2016 - 2016). Cultural Resources Task Leader/Principal Investigator for a project proposed to increase recycled water production capabilities. The project would include: increasing the reliability of the aeration system; expanding and/or replacing the existing filters with more effective tertiary filters; expanding the disinfection system; expanding the tertiary effluent pumps; possibly upsizing the discharge pipeline that connects to the District's recycled water distribution system; modifying various in-plant piping and electrical systems, and adding a standby generator to the facility for use in case of a power outage. All improvements would occur within the existing boundaries of the 3A Treatment Plant property located in southern Orange County. Project work included a records search and literature review, review of historic maps and aerial photographs, Native American outreach, and report authorship. Work performed for Santa Margarita Water District.

**Wildomar Crossings Retail Development Project** (2016 - 2018). Principal Investigator for a cultural resources survey for a proposed retail development project in the City of Wildomar in Riverside County. The cultural resources survey included a records search, Sacred Lands File search and Native American outreach, review of historic maps and aerial photographs, an intensive field survey, and report preparation.

### Summary of Qualifications



Ms. Sugimoto has 10 years of professional experience in archaeology, and she has worked in Southern California archaeology for six years, including historic archaeology, prehistoric archaeology, human osteology, and close coordination with Native American tribes. Her experience includes managing and coordinating archaeological projects and providing CEQA compliance consultation and planning support for cultural resources, tribal cultural resources, geology (paleontology), noise, air quality and greenhouse gasses, and aesthetics. Ms. Sugimoto has conducted archaeological field and lab work, including archaeological surveys and report writing. Her research interests include California archaeology, indigenous populations, environmental and social stress, climate change, and population health, and bioarchaeology. She served as the Bioarchaeological Laboratory Supervisor on the Andahuaylas Bioarchaeology Project in Peru. Ms. Sugimoto has also conducted fieldwork in Peru.

### Selected Project Experience

02189.00001.001 **Los Trancos Creek Maintenance Project** (2021 - Present). Senior Archaeologist/Cultural Resources Task Lead for a creek maintenance project in the City of Newport Beach, Orange County. Provided technical support for the U.S. Army Corp of Engineers (USACE), California State Parks, and the State Historic Preservation Office (SHPO) to support a section 404 Permit. Helped establish the determination of effects, in consultation with USACE and SHPO, for historic- era and prehistoric sites within and adjacent to the project footprint. Work performed as a subconsultant to Fuscoe Engineering, with California Department of Parks and Recreation as the lead agency.

02654.00001.002 **Park Avenue Utility Undergrounding Archaeological Consulting (051121)** (2021 – 2021).

Archaeologist, Project Manager. Prepared a cultural resources study for the proposed Park Avenue Utility Undergrounding Project (project), located in the city of Laguna Beach (City). The study included a records search, a Sacred Lands File search, review of historical maps and aerial photographs, and a field survey of the proposed project. The cultural resources letter report was prepared for the City to detail the methods and results of the study and providing management recommendations. Work performed for The City of Laguna Beach.

03723.00007.001 **Nautical Cove Project** (2021 - Present).

Archaeologist, Project Manager. Prepared a cultural resources study for the Nautical Cove Residential Development Project (project). The project proposed a residential development comprising 233 single-family residential lots, 11 open space/recreational lots, a community center, a park, five water quality basins, and a

### Education

Master of Arts,  
Anthropology, North  
Carolina University,  
2015

Bachelor of Arts,  
Anthropology  
(Archaeology  
concentration, Biology  
Minor), California  
State University  
Dominguez Hills,  
2013

Associate of Arts,  
Anthropology,  
El Camino College,  
2010

### Professional Affiliations

Society of American  
Archaeology

Project Management  
Institute

# Kassie Sugimoto

## Cultural Resources Project Manager

12.38-acre lake. The study included a records search, a Sacred Lands File search, review of historical maps and aerial photographs, and a field survey of the proposed project. The cultural resources technical report detailed the methods and results of the study and providing management recommendations. The report addressed compliance with both the California CEQA and Section 106 of the NHPA. In addition to a cultural study, HELIX assisted the City with Assembly Bill 52 consultation and provided regulatory permitting support. Work performed for Bill Lo Consulting.

### 00501.00025.002 **Metropolitan Pure Water Regional Recycled Water Program (2022 – Present)**

Senior Archaeologist, Project Manager for the technical analysis conducted in support of an Environmental Impact Report (EIR). The proposed Pure Water Southern California Program (Project; Pure Water; formerly called the Regional Recycled Water Program) is a partnership between The Metropolitan Water District of Southern California (Metropolitan) and the Los Angeles County Sanitation Districts (Sanitation Districts) to beneficially reuse water currently discharged to the Pacific Ocean. It would use advanced water purification technologies to reuse treated effluent to provide a sustainable, high-quality water supply of approximately 150 million gallons per day to augment regional water supplies. The proposed facilities would be located in Los Angeles County, spanning from approximately two miles north of the Port of Los Angeles to the foot of the San Gabriel Mountains. Work performed for Metropolitan Water District of Southern California.

### 00407.00036.001 **Pasadena Water and Power Sunset Reservoir Replacement Cultural Resources Technical Analysis (2021 - Present)**. 26 hrs.

Kassie Sugimoto, Archaeologist, prepared a cultural resources technical analysis to support an EIR for a reservoir replacement project in the City of Pasadena and provided support to the City of Pasadena for tribal consultation. Work performed as a subconsultant to Kennedy Jenks, with the City of Pasadena as the lead agency under CEQA.

### 04096.00002.001 **1335 South Grand Avenue Mixed-Use Development (2021 - Present)**.

Senior Archaeologist. Provided a peer-review of the EIR and conducted a cultural resources study for the 1335 South Grand Avenue Mixed-Use Development Project (project) to supplement the existing research. The study included a records search, a Sacred Lands File search, and review of historical maps and aerial photographs. The cultural resources technical report detailed the methods and results of the study and providing management recommendations. Work performed for M & A Gabae.

00357.00025.001 **Bouquet Canyon Road Project (2021 - 2021)**. Archaeologist. Conducted an intensive pedestrian survey of a residential property in Benedict Canyon. Coordinated with Tribal monitors and archaeological crew to complete the survey and prepared technical report, including a historic context for the cities of Los Angeles, Beverly Hills, and West Hollywood. Work performed for Integral Communities.

## Previous Project Experience

**CA-ORA-83 Bolsa Chica Mesa (2015-2018)**. Provided tribal consultation on behalf of SRS for a project located in Orange County. Coordinated repatriation of remains and prepared a Final Reburial Summary of Fragmented Human Remains for Singal Landmark and the Gabrieleno/Tongva Tribes. Confidential Report on file at SRS.

# Kassie Sugimoto

## Cultural Resources Project Manager

**John Wayne Airport** (2016-2017). Project Manager and Project Archaeologist. Executed and managed the project's contract with the client, conducted and/or managed the field and archival research for archaeology, paleontology, and biology, prepared technical documents for the County of Orange on behalf of Wickland Pipelines, Inc.

**John Wayne Airport Tank Farm** (2017-2018). Project Manager and Project Archaeologist. Executed and managed the project's contract with the client, conducted and/or managed the field and archival research for archaeology, paleontology, and biology, prepared technical documents for the County of Orange on behalf of Pond Constructors and Company.

**Frank R. Bowerman Landfill Phase VIII B-1 Landfill Buttress and Liner Project Paleontological Monitoring** (2018). Project Archaeologist for this project located in the City of Irvine. Assisted the Project Paleontologist with field excavation and laboratory research. The overall investigation included monitoring grading areas for fossils and cataloging new fossil localities. This work was part of the environmental mitigation being completed as part of the buttress and liner installation being implemented for the landfill by Orange County Waste & Recycling. The work included monitoring during grading and excavation, screenwashing sediment for microfossils, and preparing jacketed material in the field.

**I-405 Program Management Cultural Services** (2019). Archaeologist for cultural services in support of the Parsons Program Management team's 30% design plans for this 16-mile project located in Orange County. As part of the PMC team, conducted supplemental record searches at the Information Center, field studies, and several Historic Property Survey Reports by Caltrans to analyze the design changes for potential impacts to cultural resources with the revised Area of Potential Effects. All Supplemental Historic Property Survey Reports were approved by Caltrans.

**Queen of the Valley Hospital Specific Plan EIR** (2018). Archaeologist for a comprehensive EIR for a new master plan and Specific Plan for the Queen of the Valley Hospital in West Covina, Los Angeles County.

**St. Michael's Abbey Relocation EIR and Cultural Resources and Data Recovery** (2017).

Archaeologist for the preparation of an EIR for this project, which involved the development of a monastery church and private preparatory monastery school on an undeveloped 124-acre site in Silverado Canyon, Orange County. The EIR also evaluated the impacts associated with large special events, including Christmas, Easter Mass, and graduation. The project required completion of the CEQA process on a highly expedited schedule.

**La Jolla Erosion Control Project** (2019). Project Archaeologist for cultural services in support of the City of San Diego's design plans for an erosion control project. Conducted field and archival research; prepared technical documents for the City of San Diego; assisted the project manager in coordinating and scheduling work, managing deadlines, and executing contracts; and served as the primary contact between the City of San Diego and Psomas.

**6.5-Mile, Tribal Consultation on behalf of SRS** (2018). Prepared Analysis of Human Remains for the Chilkat Indian Village, Chilkoot Indian Association, Haines Borough Police Department, and the Alaska Department of Health and Social Services in Haines, Alaska. Confidential report is on file at SRS.



## Summary of Qualifications

Trevor H. Gittelhough is an archaeological assistant project manager, specializing in underwater cultural resources, with over a decade of experience in archaeology, including both cultural resources management and academic projects. This experience includes site monitoring; surveys and excavations; laboratory sorting, cataloging, and analysis; and conservation. He has conducted environmental, paleontological, and cultural resources work throughout California, Nevada, Oregon, and Florida in support of compliance with California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA) and Sections 106 and 110 of the National Historic Preservation Act (NHPA) for public and private sector clients including a range of local, state, and federal agencies such as Southern California Edison, the United States Navy and Air Force, Caltrans, and FEMA.

He has experience in team management in the terrestrial and underwater archaeological management sectors, with expertise in implementation of mitigation and monitoring projects, report production, and coordination with Indigenous groups. Underwater and Indigenous archaeology are Mr. Gittelhough's specialties, which are enhanced by his skill and experience in sailing, diving, and prehistoric technology construction. His research interests include maritime technologies and practices, settlement patterns, trade and exchange, colonial interactions, prehistoric technologies, and anthropological/archaeological theory. In addition, he has expertise in illustration of artifacts, stratigraphic and excavation unit profiles, site maps, GIS, remote sensing, and underwater excavation and mapping techniques.

Mr. Gittelhough's technical skills include terrestrial and submerged archaeological survey, excavation, and site testing. He has authored numerous site records and technical reports detailing the results of cultural resources work, as well as academic articles. He has also had thorough training in artifact analysis and specializes in lithic analysis and maritime conservation. His academic background includes advanced training in conservation and underwater archaeology. He has extensive training at the graduate level and earned his M.A. from East Carolina University. Mr. Gittelhough is Registered Professional Archaeologist, a member of the Society for American Archaeology (SAA), a member of the Society for Historical Archaeology (SHA), and a member of the Society for California Archaeology (SCA).

## Selected Project Experience

**Bouquet Canyon Road Project, Los Angeles County, CA (2021).** Cultural Resource Specialist serving as lead archaeological monitor and technical report writer for this project in the City of Santa Clarita. This work included monitoring all ground-disturbing

## Education

Master of Arts, Maritime Studies, East Carolina University, 2019

Bachelor of Arts, Archaeology, University of California, Santa Barbara, 2011

## Registrations/ Certifications

Register of Professional Archaeologists, 2018

HAZWOPER Certification; 2018 – 2021

ESRI GIS Certification  
AAUS Scientific Diver  
Red Cross First AID  
Red Cross CPR DAN  
Divers First Aid

## Professional Affiliations

Society for American Archaeology  
Society for Historical Archaeology  
Society for California Archaeology

# **Trevor Gittelhough, RPA**

## **Cultural Resources Assistant Project Manager**

activities associated with geotechnical studies, such as drilling and trenching. Monitoring was also undertaken during ground penetrating radar studies of portions of the project area.

**California Crossings, Attisha Trust Parcel, San Diego County, CA (2021).** Cultural Resource Specialist for a cultural resources study in support of biological mitigation measures (burrowing owl habitat creation) for the proposed Project in the County of San Diego. Prepared an archaeological resources assessment in compliance with state and federal regulations. Scope included a cultural resources records search, review of historic maps and aerials, and preparation of a technical report.

**Enchanted Hills Park Project, Perris, Riverside County, CA (2021).** Cultural Resource Specialist for a monitoring program during initial sitework for this project in the City of Perris, in Riverside County. Prepared monitoring letter report.

**Mission Basin Groundwater Purification Facility Well Expansion and Brine Minimization Project, Oceanside, San Diego County, CA (2021).** Cultural Resource Specialist for a cultural resources study in support of the proposed Project in the City of Oceanside, in northern San Diego County. Prepared a monitoring results memo for monitoring of geotechnical investigations and assisted with preparation of the cultural resources technical report in compliance with state and federal regulations. Scope included a cultural resources records search, preparation of a letter report/memo, and assistance with the technical report.

**Oak Shores/Lake Morena Views MWC Consolidation Project, San Diego County, CA (2021).** Cultural Resource Specialist for a cultural resources study in support of the proposed Project in eastern San Diego County. Assisted with preparation of a cultural resources technical report in compliance with state and federal regulations, as well as State Water Resources Control Board. Scope included a cultural resources records search, review of historic maps and aerials, and assistance with preparation of a technical report.

**Archaeological Monitoring for the P-586 Missile Assembly Building - San Nicolas Island, Ventura County, CA (2021).** Cultural Resource Specialist serving as archaeological monitor and technical report writer. This work included monitoring all ground-disturbing activities, including grubbing, grading, and trenching. Monitoring included close involvement with United States Navy personal and Tribal Members and Observers.

**Shady View Residential Project Environmental Impact Report, Chino Hills, San Bernardino County, CA (2021).** Cultural Resource Specialist for a cultural resources study in support of the proposed Project in the City of Chino Hills in San Bernardino County. Assisted in the preparation of the technical report in compliance with state and federal regulations. Project scope included a cultural resources records search, review of historic maps and aerials, field survey, and preparation of a technical report.

# Trevor Gittelhough, RPA

## Cultural Resources Assistant Project Manager

### Previous Project Experience

**Los Angeles County Natural History Museum Center for History and Cultural Project, Los Angeles County, CA.** Assistant Project Manager for a cultural resources study in support of the proposed Project in the downtown area of the City Los Angeles. Prepared an archaeological and tribal cultural resources assessment in compliance with CEQA, specifically Assembly Bill 52. Scope included a cultural resources records search, review of historic maps and aerials, and preparation of a technical study for submittal to the Department of City Planning.

**Environmental Services Support for the Villages at The Alhambra Project, Los Angeles County, CA.** Assistant Project Manager for a cultural resources study in support of the proposed Project in the downtown area of the City Los Angeles. Prepared an archaeological and tribal cultural resources assessment in compliance with CEQA, specifically Assembly Bill 52. Scope included a cultural resources records search, review of historic maps and aerials, and preparation of a technical study for submittal to the Department of City Planning.

**Tierra Crossing Tribal Cultural Resource and Archaeological Assessment, Los Angeles, CA.** Assistant Project Manager for a cultural resources study in support of the proposed Project in the downtown area of the City Los Angeles. Prepared an archaeological and tribal cultural resources assessment in compliance with CEQA, specifically Assembly Bill 52. Scope included a cultural resources records search, review of historic maps and aerials, and preparation of a technical study for submittal to the Department of City Planning.

**Tribal Cultural Resources Assessment for the 17346 Sunset Project, Los Angeles, CA.** Assistant Project Manager for a cultural resources study in support of the proposed Project in the downtown area of the City Los Angeles. Prepared a tribal cultural resources assessment in compliance with CEQA, specifically Assembly Bill 52. Scope included a cultural resources records search, review of historic maps and aerials, and preparation of a technical study for submittal to the Department of City Planning.

## Appendix B

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Records Search Results  
(Confidential, bound separately)

## Appendix C

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Native American Correspondence  
(Confidential, bound separately)

## Appendix D

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Survey Results Map  
(Confidential, bound separately)

# Appendix E

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DPR Site Forms  
(Confidential, bound separately)