

Rose Glen Specific Plan Residential Project

Cultural Resources Assessment

June 2022 | 03669.00003.001

Prepared for:

Century Communities
4695 MacArthur Court, Suite 300
Newport Beach, CA 92660

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

National Archaeological Database Information

Authors:	Kassie Sugimoto, M.A. and Trevor Gittelhough, M.A., RPA
Firm:	HELIX Environmental Planning, Inc.
Client/Project:	Century Communities / Rose Glen Specific Plan Residential Project
Report Date:	June 2022
Report Title:	Cultural Resources Assessment for the Rose Glen Specific Plan Residential Project, Upland, San Bernardino County, California
Submitted to:	City of Upland
Type of Study:	Cultural Resources Assessment
New Sites:	None
Updated Sites:	None
USGS Quad:	Ontario 7.5' Quadrangle
Acreage:	Approximately 4.9 acres
Key Words:	Rose Glen Specific Plan Residential Project, San Bernardino County; Township 1 South, Range 7 West; Upland; East Arrow Highway.

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
APN	Assessor's Parcel Number
B.C.E.	Before Common Era
BMPs	Best Management Practices
BP	Before Present
CCR	California Code of Regulations
C.E.	Common Era
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
HELIX	HELIX Environmental Planning, Inc.
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
SCCIC	South Central Coastal Information Center
sf	square feet
SHPO	State Historic Preservation Officer
TCP	Traditional Cultural Properties
TCR	Tribal Cultural Resources
THPO	Tribal Historic Preservation Officer
USGS	U.S. Geological Survey

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) was contracted by Century Communities to provide cultural resources services for the Rose Glen Specific Plan Residential Project (project) in the City of Upland, San Bernardino County, California. The 4.9-acre project proposes to demolish existing structures to build 64 two-story single-family homes, with open space, an internal road system, and associated infrastructure. 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).

A record search was requested from the South Central Coastal Information Center (SCCIC) on September 1, 2021. HELIX received the results of this record search on November 24, 2021 which indicated that 12 cultural resource studies have been conducted within 0.5-mile of the project area, none of which intersect with the project site. The record search results also indicated that a total of 106 cultural resources have been previously recorded within 0.5-mile of the project site; however, none have been recorded within the project site. The project site is heavily developed, which completely obscures the ground visibility within the project site. As such, HELIX did not conduct a pedestrian survey due to poor visibility of the ground surface.

A Sacred Lands File search was requested from the Native American Heritage Commission (NAHC) on September 1, 2021. The results of the Sacred Lands File search were received on October 5, 2021. The results did not identify any known tribal cultural resources or sacred lands within the proposed project site. However, HELIX submitted outreach letters to the 16 Native American tribes and tribal representatives identified by the NAHC. To date, only three responses have been received. The Fort Yuma Quechan Indian Tribe and Morongo Band of Mission Indians stated they do not have any comments on the proposed project, and the Tribe wishes to defer to the tribes local to the project site. The Gabrieleno Band of Mission Indians - Kizh Nation also submitted a response requesting who the lead agency for the project is. However, the Tribe did not provide any additional comments on the project for this report.

Based on the results of the current study, no historical resources will be affected by the Rose Glen Specific Plan Residential Project. However, due to the known cultural sensitivity within the project vicinity, the alluvial setting of the project site, and its location adjacent to the Pacific Electric Rail Line, it is recommended that ground disturbing activities be monitored by a qualified archaeologist and a Native American monitor. The monitoring program would include attendance by the archaeologist and Native American monitor at a preconstruction meeting with the grading contractor and the presence of archaeological and Native American monitors during 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 monitoring tribe, the applicant, and City staff to develop and implement appropriate mitigation measures.

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1.0 INTRODUCTION

HELIX Environmental Planning, Inc. (HELIX) was retained by Century Communities (Client) to provide cultural resource consulting services in support of the Rose Glen Specific Plan Residential Project (project) in the City of Upland, San Bernardino County, California. The project is located in southeast Upland at the intersection of East Arrow Highway and Olivewood Drive. The project area is currently developed as a lumber yard that has been in operation from the mid twentieth century through present-day. The proposed project would demolish and replace a series of extant warehouses, associated structures, and hardscaping currently occupying the 4.9-acre parcel. A cultural resources study including a records search, Sacred Lands File search, Native American outreach, and a review of historic aerial photographs and maps 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). A separate historic resource evaluation report was prepared to address historic built environment resources.

1.1 PROJECT LOCATION

The project is located in the City of Upland in San Bernardino County (Figure 1, *Regional Location*). The project is located 2.43 miles south of Interstate 210 (I-210, Foothill Freeway) and 1.04 miles north of I-10 (San Bernardino Freeway) within an unsectioned portion of Township 1 South, Range 7 West, on the U.S. Geological Survey (USGS) 7.5' Ontario quadrangle (Figure 2, *USGS Topography*). The approximately 4.9-acre project site is located within Assessor's Parcel Number (APN) 1046-481-14-0000 and is bordered by East Arrow Highway to the north, residential properties and Olivewood Drive to the east, a commercial property to the west, and residential properties to the south (Figure 3, *Aerial Photograph*). The project area is currently developed as a lumber yard with associated structures.

1.2 PROJECT DESCRIPTION

The project proposes to demolish the extant structures on the subject property and replace them with 64 two-story single family detached residential homes (Figure 4, *Site Plan*). The homes, which will be designed in the Spanish/Santa Barbara architectural style, will range from 1,544 to 1,547 square feet (sf), and extend to a maximum height of 40 feet. Additional project features 8,904 sf of common open space that would support open lawn play areas, tot lot, picnic areas and benches, and additional smaller landscaped common open space areas. Parking would be accommodated through the provision of private spaces in the attached two-car garages (for a total of 128 spaces) and an additional 47 guest spaces that would be distributed through the project site. The existing ten-foot block wall that separates the project site from the residential land uses to the east would remain and be painted. Additionally, a minimum 6-foot-high sound wall is proposed along the westerly side of the project, and a new wall would be erected along the project's western and southern project boundary.

Site access would be via a gated pass-through entry lane for residences with a separate lane for guests along Arrow Highway, with a secondary gated emergency-only access provided along North 14th Avenue. A network of internal private drives with 24-foot right of way would provide access to the individual homes. Internal drives would be privately owned and maintained. Pedestrian connectivity is a major goal within the project, and pedestrian connections are provided through sidewalks on both sides of all streets and within the recreation areas.

Utility infrastructure improvements and connections would also occur to accommodate site development. An existing six-inch water line on site would be removed and realigned with an 8-inch water line lateral connection to East Arrow Highway and reducing connection to North 14th Avenue. If fire flow requirements are not met, a secondary lateral connection to the existing 8-inch water line in the adjacent property may be needed to complete the internal loop system. Wastewater discharges from the site would occur through internal sewer mains connecting to an existing 8-inch sewer line in North 14th Avenue. An existing 8-inch sewer line would be abandoned and a new sewer line 8-inch sewer line would be rerouted through the site. The project would decrease the area of impervious surfaces in relation to the existing site conditions and would incorporate Best Management Practices (BMPs) for the collection and treatment of storm water as part of an overall low-impact development concept. The on-site storm system would convey runoff through the street curbs and catch basins to a 7,453-sf underground vault system to infiltrate on site. Any high flows would be conveyed through a new off-site proposed system from the site through North 14th Avenue and 9th Street and connect to an existing San Bernardino County Flood Control District structure at Bodenhamer Street. Additionally, the existing overhead electrical lines that traverse the property would be undergrounded, and other local connections would occur to municipal infrastructure.

In all, 5,000 sf of structures would be demolished along with 213,444 sf of asphalt that would be hauled from the site. In addition, 2,727 cubic yards of imported soil would be hauled to the site. To accommodate the residences, the project would require a General Plan land use amendment and a zone change from the current Light Industrial/Business Park designation and Light Industrial Zoning to Specific Plan.

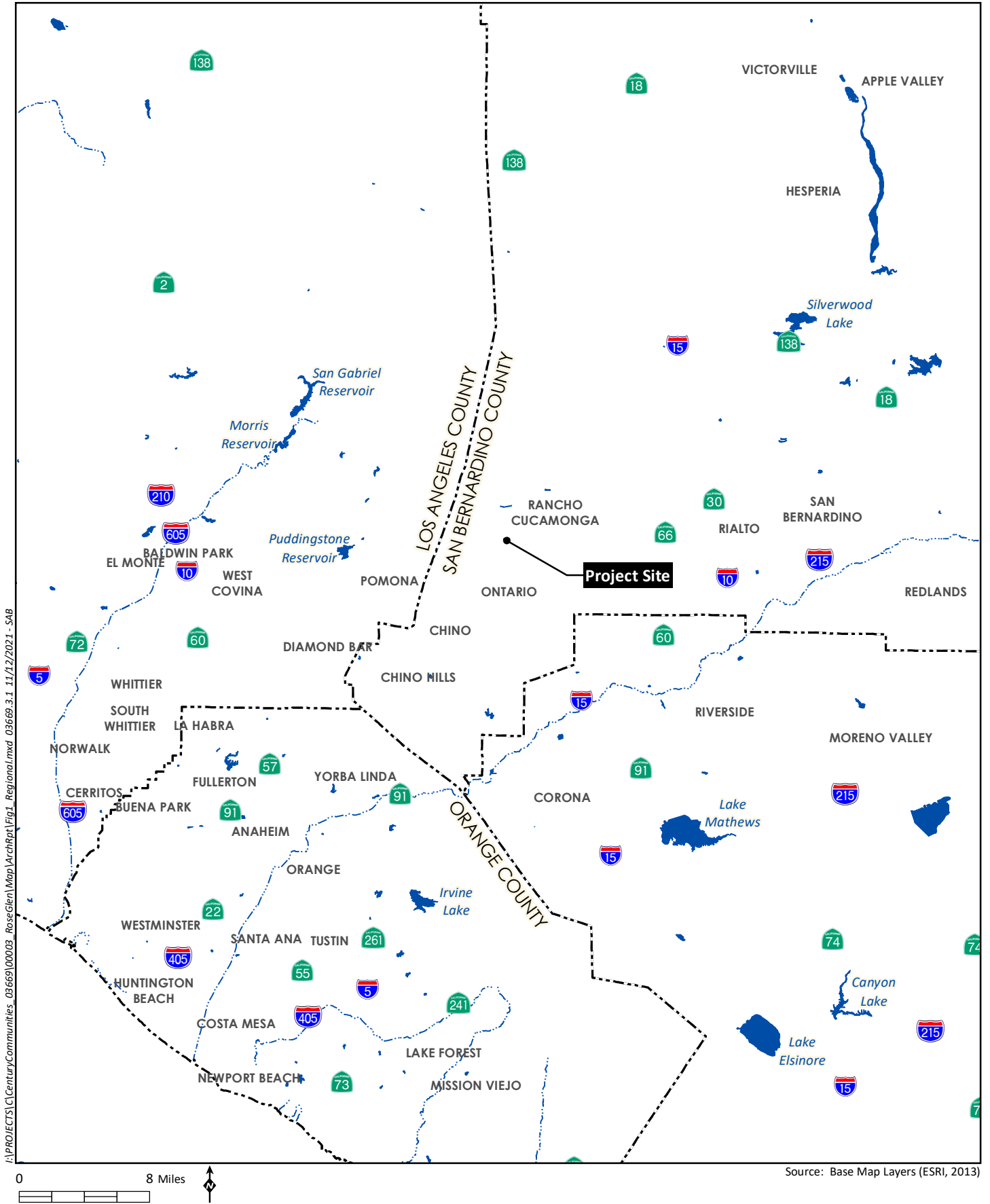
1.3 REGULATORY FRAMEWORK

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 which have been found eligible to the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP), as applicable.

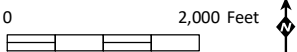
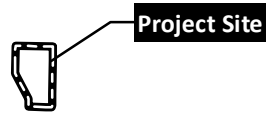
1.3.1 Federal

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.



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Source: ONTARIO & GUASTI 7.5' Quad (USGS)



Project Boundary

10TH ST

ARROW RTE

ARROW HWY

ORANGE TREE LN

COTTONWOOD ST

ORANGE GROVE ST

SALINA ST

BODENHAMER ST

OLIVEWOOD DR

14TH AVE



Source: Aerial (San Bernardino County, 2020)



Source: Hunsaker 2021

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 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.

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.

1.3.3 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/Native American archaeological sites is the category termed Traditional Cultural Properties (TCP) in discussions of cultural resource management performed under federal auspices. “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 (Parker and King 1998).

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. A TCP may be considered eligible for the National Register based on “its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community” (Parker and King 1998:1). Strictly speaking, TCPs are both tangible and intangible; they are anchored in space by cultural values related to community-based physically defined “property referents” (Parker and King 1998:3). On the other hand, TCPs are largely ideological, a characteristic that may present substantial problems in the process of delineating specific boundaries. Such a property’s extent is based on community conceptions of how the surrounding physical landscape interacts with existing cultural values. By its nature, a TCP need only be important to community members and not the general outside population as a whole. In this way, a TCP boundary may be defined based on viewscape, encompassing topographic features, the extent of an archaeological district or use area, or a community’s sense of its own geographic limits. Regardless of why a TCP is of importance to a group of people, outsider acceptance or rejection of this understanding is made inherently irrelevant by the relativistic nature of this concept.

In California, the Traditional Tribal Cultural Places Bill of 2004 requires local governments to consult with Native American representatives 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. It further allows for tribal cultural places to be included in open space planning.

California State Assembly Bill 52 (AB 52) revised PRC Section 21074 to include Tribal Cultural Resources (TCRs) as an area of CEQA environmental impact analysis. As a general concept, a TCR is similar to the federally defined term TCP; however, it incorporates consideration of local and state significance and required mitigation under CEQA. A TCR may be considered significant if it is (i) included in a local or state register of historical resources; (ii) determined by the lead agency to be significant pursuant to criteria set forth in PRC Section 5024.1; (iii) a geographically defined cultural landscape that meets one or more of these criteria; (iv) a historical resource described in PRC Section 21084.1 or a unique archaeological resource described in PRC Section 21083.2; or (v) a non-unique archaeological resource if it conforms with the above criteria.

1.4 PROJECT PERSONNEL

A cultural resources survey was conducted by HELIX in 2021 to assess whether the project would have any effects on cultural resources. Mary Robbins-Wade, M.A., RPA served as the principal investigator and provided senior technical oversight; Trevor Gittelough, M.A., RPA and Kassie Sugimoto, M.A. served as the primary authors of this report. Resumes of key HELIX personnel are included as Appendix A. This report addresses the methods and results of the cultural resources study, which included a records search, Sacred Land File search, Native American outreach, and historic archival research.

2.0 PROJECT SETTING

2.1 NATURAL SETTING

The project area is located immediately south of the San Gabriel Mountains, in the City of Upland. The San Gabriel Mountains are on a thin slice of crust, bounded by the San Andreas and San Gabriel fault zones, that include Proterozoic and Mesozoic bedrock (Barth 1990). Following the emplacement of the bedrock, movement along the major bounding faults from the Late Cretaceous to the Paleocene resulted in the initiation of uplift of the mountains (Barth 1990). Ongoing tectonic activity, in the form of compressional deformation from the large restraining bend in the San Andreas fault zone, results in the steep terrane and high erosional rates characteristic of the mountains today (Dixon et al. 2012). Geologically, the project area is underlain by alluvial fan gravel and sand derived from the San Gabriel Mountains, dating to the Pleistocene (Bortugno and Spittler 1986). Soils consist of Tujunga gravelly loamy sand (0 to 9 percent slopes); this series consists of excessively drained soils formed in stable and competent alluvium, derived primarily from granite (Natural Resources Conservation Service [NRCS] 2017).

The project area is set within an alluvial fan formed from streams flowing from the San Gabriel Mountains, depositing soils from the base of dissected hills to the south and above the Santa Clarita River floodplain. The south-flowing Arroyo Secco is located approximately 20.5 miles west while the Rio Honda is approximately 17.6 miles east. The project area is currently occupied by the Arrow Truss Company lumber yard, along with associated facilities, and has been developed since at least 1956 (see History of the Project Area section below). The project area is relatively flat and has little topographic relief, and the vicinity has been heavily developed with residential neighborhoods.

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 Before Common Era (B.C.E.)
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 B.C.E.
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 B.C.E.–C.E. 500
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.	C.E. 500–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 early dates (Carter 1957, 1978, 1980; Minshall 1976); however, these sites identified as “early man” are all controversial. The material from the sites is generally considered nonartifactual, and the investigative methodology is often questioned (Moratto 1984). The most widely recognized timeline for the prehistory of Southern California is that proposed by Wallace (1955) and summarized in the table above, dividing the region's prehistory into four main periods, or “horizons”: Early, Milling Stone (Archaic Period), Intermediate, and Late 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; Warren et al. 2004). 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 Millingstone 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 (Warren et al. 2004). The Millingstone 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 B.C.E. (before current era). 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 et al. 2004). In Riverside County, the Archaic Period occupation is represented by diagnostic artifacts and radiocarbon dates identified at sites situated the within Perris and Domenigoni valleys (Bettinger 1974; Goldberg 2001; Robinson 2001). Archaeological excavations conducted for the Perris Reservoir Project in Perris Valley yielded radiocarbon dates of circa 2,200 Before Present (BP) (Bettinger 1974) and several sites identified during archaeological studies conducted for the Eastside Reservoir (Diamond Valley Lake) Project dated to what the researchers termed the Middle Archaic (7,000 to 4,000 years ago) and Late Archaic (4,000 to 1,500 years ago) periods (Goldberg 2001).

Dates for the Intermediate Horizon vary by locale but can generally be dated to between 3,000 B.C.E. and 500 C.E. (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-Aztecanspeaking 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). 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-Aztecans 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-Aztecanspeakers 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).

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

2.2.2 Ethnohistory

The project is located within the territory of the Gabrieleño/Tongva, which was rich in villages of various sizes (King 2004; McCawley 1996:36–40). In general, however, it has been very difficult to determine the precise location of any specific Indigenous village occupied in the Ethnohistoric period (McCawley 1996:31–32). Traditional place names referred to at the time of Spanish contact did not necessarily represent a continually occupied settlement at a single location, and in many cases, these communities were in fact representative of several smaller camps scattered across a general area, shaped by the local geography and subject to change over generations (Johnston 1962:122). By the time ethnographers, anthropologists, and historians began efforts to document their locations, many of the villages had been abandoned, their locations already heavily affected by agricultural and urban development, and Indigenous lifeways had been changed forever. Additionally, alternative names and spellings for historic communities, conflicting reports on their meaning, and differing geographic reference points, from different informants, further confound relocation attempts. Nevertheless, the project area is shown on ethnohistoric maps variously as within the traditional territory of the Gabrieleño people and of the Serrano people, both of whom are addressed below.

2.2.2.1 Gabrieleño

The project site is located within the region that has traditionally been occupied by the Gabrieleño people (also spelled as Gabrieleno or Gabrielino; Bean and Smith 1978a:538; Kroeber 1925: Plate 57). Other Indigenous groups in the surrounding areas include the Chumash to the north and northwest, the Tataviam/Alliklik to the north, the Serrano to the east, and the Luiseño and Juaneño to the south. Interactions between these groups are well-documented, comprised primarily of trade and intermarriage.

The name Gabrieleño 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 Gabrieleño 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 Gabrieleño. 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 Gabrieleño/Tongva is used in the remainder of this report when discussing the Indigenous people of the Los Angeles Basin and their descendants.

The Gabrieleño/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 1978a:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

A wide variety of tools and implements were used by the Gabrieleño/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). Gabrieleño/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 Gabrieleño/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 Gabrieleño/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 Serrano/Vanuyme

The project area is situated within the area historically occupied by the Native American group generally referred to as the Serrano (Bean and Smith 1978b; Benedict 1924; Kroeber 1925; Strong 1929). The name Serrano, a Spanish word applied by early Spanish explorers, means “mountaineers—those of the Sierras” or “highlanders.”

Although several indigenous words have been recorded that named the people known as Serrano, most are from neighboring groups and do not represent what the Serrano would have called themselves. One exception is Kai via tam, recorded and translated by Kroeber (1908b:36) as “mountains.” Kroeber was uncertain if this term was a translation back into the people’s own language of what the Spanish had named them, or if this term authentically denoted the Serrano word for themselves without any foreign

influence. Serrano living today, however, have also referred to themselves as Yuhaviatun, or “people of the pines.” This is apparently not only in reference to the trees of the high mountains but also to a creation story that links the people with tears and pine nuts. According to the story, when the Creator died in the high mountains, the first people grieved and, in their grieving, became pine trees; pine nuts are thus likened to the grieving peoples’ tears. Subsequent generations followed the fruition of the first people and are said to sustain themselves on those tears (San Manuel Band of Mission Indians 2008).

The Serrano language is part of the Serran division of a branch of the Takic family of the Uto-Aztecan linguistic stock (Mithun 2006:539, 543). The two Serran languages, Kitanemuk and Serrano, are closely related. Kitanemuk ethnographic lands were located to the northwest of the Serrano. Other neighboring Takic-speaking groups include the Tataviam and Gabrielino (or Tongva) to the west, and the Cahuilla to the south. The Kawaiisu and Chemehuevi, located north and east of the Serrano, respectively, spoke languages that belong to the Numic branch of the Uto-Aztecan family.

Serrano was originally spoken by a relatively small group located within the San Bernardino and Sierra Madre Mountains, and the term “Serrano” has come to be ethnically defined as the name of the people in the San Bernardino Mountains (Kroeber 1925:611). The Vanyume, who lived along the Mojave River and associated Mojave Desert areas and are also referred to as the Desert Serrano, spoke either a dialect of Serrano or a closely related language (Mithun 2006:543).

According to the records by Fr. Francisco Garcés, who was the first European to travel in this region in 1776, the name Vanyume is derived from the term for them (Beñeme) used by the Mojave (Coues 1900:Vol. 1:240). Very little is known of the Vanyume-speaking people because the group was heavily disrupted by the Spanish missionaries between the early 1820s and 1834. By the 1900s, the group was considered extinct (Bean and Smith 1978b:570; Kroeber 1925:614). Kroeber (1925:614–615) does make a distinction between the Serrano and Vanyume by reporting that the Vanyume were friendly with the Chemehuevi and Mohave to the east, whereas the Serrano maintained animosity with these groups. The area of combined Serrano/Vanyume occupation—the San Bernardino Mountains, the southwestern portions of the Mojave Desert, and the Mojave River area—has become collectively known as the Serrano area.

The Serrano occupied an area in and around the San Bernardino Mountains between approximately 450 and 3,350 meters (1,500 to 11,000 feet) above mean sea level. Their territory extended west into the Cajon Pass, east as far as Twentynine Palms, north past Victorville, and south to the Yucaipa Valley. Year-round habitation tended to be located out on the desert floor, at the base of the mountains, and up into the foothills, with all habitation areas requiring year-round water sources (Bean and Smith 1978b; Kroeber 1908b).

Most Serrano lived in small villages located near water sources (Bean and Smith 1978b:571). Houses measuring 12 to 14 feet in diameter were domed and constructed of willow branches and tule thatching. The interiors were encircled with tule mats. Each house was occupied by a single extended family, comprising a husband, wife (or wives), children, grandparents, and perhaps a widowed aunt or uncle, and was a central family unit gathering place for sleeping and storage. Much of the daily routine occurred outdoors in the open or under square ramadas constructed of at least four posts, cross-beams, and tule-thatched roofs. Many of the villages had a ceremonial house, used both as a religious center and the residence of the lineage leaders. When hunting, the men would sometimes construct individual dwellings away from the village. Additional structures within a village might include granaries and a large circular subterranean sweathouse. The sweathouses were typically built along streams or pools.

A village was usually composed of at least two lineages, referred to as a lineage set. In each village, one lineage tended to be more dominant than the other lineage. Lineages tended to rise and fall in dominance. A lineage set would intermarry, share ties of economic reciprocity, and share the ceremonial house and ceremonial bundle. Lineage sets shared the responsibility of conducting religious ceremonies together through the one lineage's religious leader and his assistant; the assistant was the religious leader of the other lineage of the set. The Serrano were loosely organized along patrilineal lines and associated themselves with one of two exogamous moieties or "clans"—the Wahiyam (coyote) or the Tukum (wildcat) moiety.

Organization of Serrano lineage sets was considered by Kroeber (1925:617–618) to be similar to political groups. He defined a lineage set as occupying one village, representing at least two moieties, and coordinating its hunting and gathering activities per the religious deliberations and scheduling determined by two leaders (one from each of the moieties), with one leader occupying the ceremonial house and the other possessing the ceremonial bundle. Often, a lineage set had the exclusive power to forge and maintain economic ties to other villages of neighboring Serrano (including Vanyume), Cahuilla, Chemehuevi, Gabrielino, and Cupeño.

Serrano territory was a trade nexus between inland tribes and coastal tribes. Ethnohistory also suggests that the Serrano played a role in the trade of horses from the southwest to the California coast (Bean and Vane 2002). Despite their large geographic extent, as well as their control of significant travel corridors, considering the politically autonomous structure and function of the village unit, some anthropologists have difficulty considering the Serrano a unified "tribe," as that word is defined as a unit of people with a common political leadership (Kroeber 1925:617; Strong 1929:14).

The fundamental economy of the Serrano was one of subsistence hunting and collecting plant goods, with occasional fishing (Bean and Smith 1978b:571). Large and small animals were hunted, including mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Plant staples consisted of seeds; acorn nuts of the black oak; piñon nuts; bulbs and tubers; and shoots, blooms, and roots of various plants, including yucca, berries, barrel cacti, and mesquite. Fire was used as a management tool to increase yields of specific plants, particularly chía.

Trade and exchange were an important aspect of the Serrano economy. Those living in the lower-elevation, desert floor villages traded foodstuffs with people living in the foothill villages who had access to a different variety of edible resources. In addition to intervillage trade, ritualized communal food procurement events, such as rabbit and deer hunts and piñon, acorn, and mesquite nut-gathering events, integrated the economy and helped distribute resources that were available in different ecozones.

A variety of materials were used for hunting, gathering, and processing food, many of which were also used for shelter, clothing, and ceremonial items. Shell, wood, bone, horn, stone, plant materials, animal skins, and feathers were used for making money, baskets, rabbit skin blankets, mats, nets, and bags. The Serrano made pottery and used it daily to carry and store water or foodstuffs; ceramics were also used as ceremonial objects. They also made awls, sinew-backed bows, arrows, arrow straighteners, throwing sticks (for hunting), traps, fire drills, stone pipes, musical instruments of various types (rattles, rasps, whistles, bull-roarers, and whistles), yucca fiber cordage for snares, nets and carrying bags, and clothing (Bean and Smith 1978b:571; Bean and Vane 2002). A strong tradition of basket weaving incorporated the use of juncus sedge, deergrass, and yucca fiber. Foods were cooked either in earth ovens, in watertight baskets using heated cooking rocks and constant stirring, or by parching through use of hot

embers and a constant tossing motion of shallow trays containing the grains. Animal bones were boiled and then cracked for access to the marrow. A variety of methods were used in the drying and preserving of foods for later consumption.

Religious doctoring among the Serrano took place within the ceremonial center (Bean and Smith 1978b:573). Their doctoring tradition was based on dreaming techniques aided by the hallucinogenic datura plant, sucking techniques applied by the doctor to the patient's body, and by the administration of pharmacopeia of traditional medicinal plants. The above combination of traditional healing techniques, plants, and knowledge were also common to neighboring groups occupying the southern California mountain-desert biomes. Songs and rituals to the creator for the conversion of plants and animals into the foods, medicines, and utensil materials necessary for Serrano sustenance played an important role in any hunting, gathering, or healing endeavor (Bean and Vane 2002). Shamans also had significant roles in typical life rituals, including birth, puberty, marriage, and death. The administration of datura was particularly important in the boys' puberty ceremony since they were expected to have dreams that would determine the future mileposts of their lives.

Prior to Spanish occupation of Serrano lands, cremation of the body and the deceased's possessions was practiced. The completion of the death cycle involved a week-long ceremony that involved ritualized gift giving, feasting, naming, public display of the lineage set ceremonial bundle, an eagle killing and dance ceremony, and a final burning of an effigy depicting the deceased.

Mainly due to the inland territory that Serrano occupied beyond Cajon Pass, contact between Serrano and Europeans was relatively minimal prior to the early 1800s. As early as 1790, however, Serrano began to be drawn into mission life (Bean and Vane 2002). More Serrano were relocated to Mission San Gabriel in 1811 after a failed indigenous attack on that mission. Most of the remaining western Serrano were moved to an asistencia built near Redlands in 1819 (Bean and Smith 1978b:573). By 1834, most western Serrano had been moved to the missions, with some Serrano possibly moved to the mission at San Fernando Rey (Kroeber 1908a). Only small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture.

In the 1860s, a smallpox epidemic decimated many indigenous southern Californians, including the Serrano (Bean and Vane 2002). Oral history accounts of a massacre in the 1860s at Twentynine Palms may have been part of a larger American military campaign that lasted 32 days (Bean and Vane 2002:10). Surviving Serrano sought shelter at Morongo with their Cahuilla neighbors; Morongo later became a reservation (Bean and Vane 2002). Other survivors followed the Serrano leader Santos Manuel down from the mountains and toward the valley floors, and eventually settled what later became the San Manuel Band of Mission Indians Reservation. This reservation was established in 1891 (San Manuel Band of Mission Indians 2008).

In 2004, most Serrano lived either on the Morongo or San Manuel reservations (California Indian Assistance Program 2003). The Morongo Band of Mission Indians of the Morongo Reservation, established through presidential executive orders in 1877 and 1889, includes both Cahuilla and Serrano and totaled 1,097 tribal members in 2004. The reservation covers 32,718 acres of land in both consolidated and checkerboard patterns. Established in 1893, the San Manuel Band of Mission Indians included 84 Serrano tribal members in 2004 and covers 658 acres. Both Morongo and San Manuel are federally recognized tribes. People of both tribes participate in cultural programs to revitalize traditional languages, knowledge, and practices.

Although the Vanyume were considered extinct by ethnographers (Kroeber 1925:614; Bean and Smith 1978b:570), recent genealogical research combined with mitochondrial DNA (mtDNA) analysis indicates three lineages from the Fort Tejon area were originally from the village of Topipabit downstream from Victorville (California Energy Commission 2008:4.3–11). These lineages are currently part of the San Fernando Band of Mission Indians, located in Newhall. This group, which includes Kitanemuk, Inland Chumash, Tataviam, and Vanyume, has applied for federal recognition.

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 Arroyo Seco as he passed through the Los Angeles Basin, before 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 Mission San Gabriel de Arcángel (1771), the first permanent European settlement in the area. In 1772, Spanish Commander Pedro Fages explored a canyon that passed through the mountains north of present-day Gorman and named the area Cañada de Las Uvas, or Grapevine Canyon. Friar Francisco Garces further explored the region in 1776, and Spanish settlers began establishing ranchos in the San Fernando Valley by the 1790s (Beck and Haase 1974:15).

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 1927a). Twenty-six years after the establishment of Mission San Gabriel de Arcángel, the San Fernando Mission was founded in 1797, as a stopping point between the San Gabriel and San Buenaventura missions (Engelhardt 1927b). Most of the Indigenous population in the Los Angeles Basin, as well as the surrounding foothill and mountain ranges, were persuaded or forced to settle near the two missions. These included Tataviam, Chumash, the Gabrieleño, the Serrano, many Cahuilla as far as the Coachella and San Jacinto valleys, and even some 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 had gained its independence in 1821, Spanish patterns of culture and influence remained for some time. The missions continued, operating in mostly the same fashion as they had previously, and most of the laws related to the distribution of land did not change throughout 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. Kearny 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 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 neighbor 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' 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.

Upland

The community of Upland is located at the base of the San Gabriel Mountains along what was the Old Spanish Trail, which led directly to the San Gabriel Mission to the west. During the Spanish Period, the area of Upland was used by the San Gabriel Mission for grazing of their cattle herds, but in 1839 the secularization of the mission led to the area to be granted to Tiburcio Tapia as Rancho Cucamonga (Hoffman 1862). After the Mexican-American War, a patent was filed with the Public Lands Commission in 1852 and was patented to Leon Prudhomme in 1872 (Willey 1886). The Rancho was sold to John Rains in 1858, and then sold to Isaias Hellman in 1871 who, along with his partners, sub-divided the land (Hoover, et al. 1966). Over 8,000 acres was purchased by George Chaffey in 1882 and started the colony of Ontario in the same year, along with the creation of the San Antonio Water Company (Galvin Preservation Associates [GPA] 2007).

Upland was originally the northern part of the Ontario Colony and got the name from the local Upland Citrus Association (Upland Public Library 2021a). In 1887, the Atchison, Topeka, and Santa Fe railroad completed a connection to the Magnolia Tract in North Ontario, which spurred a growth boom in the area, outside of the Southern Pacific tracks located south in Ontario proper. While Ontario incorporated in 1891, it was only a half-square mile area south of the Southern Pacific tracks, though it was expanded north over 10 square miles in 1901 (Upland Public Library 2021b). That expansion spurred residents of North Ontario into incorporation, with the name of Upland, which occurred in 1906 and was expanded in 1935 to include the 1901 Ontario annexation (Upland Public Library 2021a).

Both cities owed their original growth to citrus, but beginning in the mid-1940s, the industry's success began to decline. With the land boom that occurred after World War II, growers saw a reason to stop their groves and began to sell their land to developers (GPA 2007). The residential growth of the city got further impetus from the development of the San Bernardino Freeway (I-10) in 1954. As one of the first freeways in the nation, it eased the commute to Los Angeles, and served as a major reason for the transition of Upland into a residential and commercial community.

Project Area History

The project area is located in central Upland, with the East Arrow Highway directly north, and the Atchison, Topeka and Santa Fe Railway (AT&SF) to the south. Prior to development, the project site was

a flat area, directly to the east of a perennial wash. Historic topographic maps from 1897 and 1903 show the area as undeveloped to the east of North Ontario. By 1933, the project area is still undeveloped; however, the Pacific Electric Railway runs directly along its northern edge, and by 1938, the area has been developed as an agricultural field west of an orchard. A lumber yard was built on the project area in 1956 and has continued to be used in that industry into the present.

3.0 METHODS

HELIX requested a records search of the project site and a half mile radius at the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton on September 1, 2021. The SCCIC maintains records of previously documented archaeological resources and technical studies. The records search was conducted to identify 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 maps are included as Confidential Appendix B to this report. Historic maps and aerial photographs were reviewed to assess the potential for historic archaeological resources to be present.

The Native American Heritage Commission (NAHC) was contacted on September 1, 2021 for a Sacred Lands File search and list of Native American contacts, which were received on October 5, 2021. Letters were sent on October 29, 2021 to the contacts listed by the NAHC. Native American correspondence is included as Confidential Appendix C to this report

4.0 RESULTS

4.1 RECORDS SEARCH

HELIX staff received the results of a record search of the California Historical Resources Information System (CHRIS) from the South Central Coast Information Center (SCCIC) on November 24, 2021, to identify previously documented archaeological resources within a 0.5-mile radius of the project site.

The search included previously recorded archaeological resources, as well as historic structures identified in the Built Environment Resource Directory (BERD) (within the project site and surrounding 0.5-mile area. A review of the California Historical Resources and the state Office of Historic Preservation (OHP) historic properties directories was also conducted.

4.1.1 Previously Recorded Cultural Resource Studies

The records search results identified 12 previous cultural resource studies within the record search limits (Table 1, *Previous Studies within a Half Mile of the Study Area*). None of the previous studies overlap with the project site. The studies are comprised of architectural historical evaluations, archaeological field studies, and literature searches.

Table 1
PREVIOUS STUDIES WITHIN A HALF MILE OF THE STUDY AREA

Report Number (SB-)	Year	Author	Report Title
SB-00379	1976	Harris, Ruth D.	Archaeological - Historical Resources Assessment of Proposed Gas Tax Project No. 3217 at the Intersection of San Bernardino Road and Arrow Highway at Ninth Street
SB-02940	1993	Archaeological Associates	Historical Property Survey Report for the Proposed Widening of Foothill Blvd., Between Grove Ave and Lion St., in the City of Rancho Cucamonga, San Bernardino County, California
SB-03567	2001	Jensen, Peter	Archaeological Inventory Survey of Sb54xc412 Cell Tower Site, Upland Memorial Park, City of Upland, Ca. 9pp
SB-04097	2003	Tanaguchi, Christeen	Records Search Results & Site Visit for Cingular Telecommunication Facility Sb 226-02 (Upland Memorial Park), 1100 E. Foothill Blvd, City of Upland, San Bernardino County, Ca. 8pp
SB-06666	2009	Encarnacion, Deirdre	Identification and Evaluation of Historic Properties: Northwest Recycled Water System Project, Cities of Rancho Cucamonga, Upland and Ontario, San Bernardino County, California.
SB-06667	2009	Encarnacion, Deirdre	Identification and Evaluation of Historic Properties: Northwest Recycled Water System Project, Cities of Rancho Cucamonga, Upland and Ontario, San Bernardino County, California.
SB-06669	2010	Sampson, Seth	Pearson Lab Road Grading Project, Kern and San Bernardino Counties, California NAWs Cultural Resource Number 2010-37
SB-07048	2012	Padon, Beth	Cultural Resource Assessment Study for Verizon "Hemlock" Site in Rancho Cucamonga, San Bernardino County, California
SB-07084	2010	Tang, Bai "Tom"	Preliminary Historical/Archaeological Resources Study, San Bernardino Line Positive Train Control Project, Southern California Regional Rail Authority, Counties of Los Angeles and San Bernardino.
SB-07194	2012	Puckett, Heather R.	Bowen, 997 East 8th Street, Upland, CA 91786.
SB-07708	2011	Applied Earthworks and Far Western Anthropological Research Group	Cultural Resource Constraints Analysis for Gas Hydrotesting at T-77 on Gas Transmission Line 300B.
SB-08257	2016	Tang, Bai	Due-Diligence Historical/Archaeological Resources Study Inland Empire Utilities Agency Recharge Basin Maintenance Plan Chino Basin Area, San Bernardino and Riverside Counties, California CRM TECH Contract No. 2989

* intersects with the project site.

4.1.2 Previously Recorded Cultural Resources

The SCCIC record search contained 106 previously recorded cultural resources within a half-mile radius of the project site (Table 2, Previously Recorded Resources Within Half Mile of the Study Area). None of these 106 resources are recorded within the project site. All but one of the resources are historic buildings, with the single outlier consisting of a prehistoric lithic scatter.

Table 2
PREVIOUSLY RECORDED RESOURCES WITHIN A HALF MILE OF THE STUDY AREA

Primary Number (P-36-##)	Trinomial (CA-LAN-#)	Age	Description	Recorder, Date
P-36-013928	-	Historic	Building	R. Hatheway, 1991; Laurie S. White, 1993
P-36-013945	-	Historic	Building	Laurie S. White, 1993
P-36-016424	-	Historic	Building	Merrill, 1987
P-36-016466	-	Historic	Building	Merrill, 1987
P-36-018150	-	Historic	Building	Merrill, 1987
P-36-018151	-	Historic	Building	Unknown, n.d.
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P-36-018160	-	Historic	Building	Unknown, n.d.
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P-36-018162	-	Historic	Building	Unknown, n.d.
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P-36-018167	-	Historic	Building	Unknown, n.d.
P-36-018191	-	Historic	Structure	Unknown, n.d.
P-36-018192	-	Historic	Building	Unknown, 1993
P-36-018193	-	Historic	Building	Unknown, n.d.
P-36-018194	-	Historic	Building	Unknown, n.d.
P-36-018205	-	Historic	Building	Unknown, n.d.
P-36-018206	-	Historic	Building	Unknown, n.d.
P-36-018207	-	Historic	Building	Unknown, n.d.
P-36-018208	-	Historic	Building	Unknown, n.d.
P-36-018209	-	Historic	Building	Unknown, n.d.
P-36-018210	-	Historic	Building	Unknown, n.d.
P-36-018211	-	Historic	Building	Unknown, n.d.
P-36-018212	-	Historic	Building	Unknown, n.d.
P-36-018213	-	Historic	Building	Unknown, n.d.
P-36-018214	-	Historic	Building	Unknown, n.d.
P-36-018215	-	Historic	Building	Unknown, n.d.
P-36-018216	-	Historic	Building	Unknown, n.d.

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P-36-018218	-	Historic	Building	Unknown, n.d.
P-36-018219	-	Historic	Building	Unknown, n.d.
P-36-018220	-	Historic	Building	Unknown, n.d.
P-36-018229	-	Historic	Building	Unknown, n.d.
P-36-018230	-	Historic	Building	Unknown, n.d.
P-36-018231	-	Historic	Building	Unknown, n.d.
P-36-018232	-	Historic	Building	Unknown, n.d.
P-36-018233	-	Historic	Building	Unknown, n.d.
P-36-018234	-	Historic	Building	Unknown, n.d.
P-36-018235	-	Historic	Building	Unknown, n.d.
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P-36-018237	-	Historic	Building	Unknown, n.d.
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P-36-018412	-	Historic	Building	Unknown, n.d.
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P-36-018418	-	Historic	Building	Unknown, n.d.
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P-36-018429	-	Historic	Building	Unknown, n.d.
P-36-018430	-	Historic	Building	Unknown, n.d.
P-36-018431	-	Historic	Building	Unknown, n.d.
P-36-018432	-	Historic	Building	Unknown, n.d.
P-36-018433	-	Historic	Building	Unknown, n.d.
P-36-018434	-	Historic	Building	Unknown, n.d.
P-36-018435	-	Historic	Building	Unknown, n.d.
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P-36-018439	-	Historic	Building	Unknown, n.d.
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P-36-018441	-	Historic	Building	Unknown, n.d.
P-36-018442	-	Historic	Building	Unknown, n.d.
P-36-018443	-	Historic	Building	Unknown, n.d.
P-36-018444	-	Historic	Building	Unknown, n.d.
P-36-018445	-	Historic	Building	Unknown, n.d.
P-36-018446	-	Historic	Building	Unknown, n.d.

Primary Number (P-36-##)	Trinomial (CA-LAN-#)	Age	Description	Recorder, Date
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P-36-018450	-	Historic	Building	Unknown, n.d.
P-36-018451	-	Historic	Building	Unknown, n.d.
P-36-018452	-	Historic	Building	Unknown, n.d.
P-36-018453	-	Historic	Building	Unknown, n.d.
P-36-018454	-	Historic	Building	Unknown, n.d.
P-36-018455	-	Historic	Building	Unknown, n.d.
P-36-018456	-	Historic	Building	Unknown, n.d.
P-36-018457	-	Historic	Building	Unknown, n.d.
P-36-018458	-	Historic	Building	Unknown, n.d.
P-36-018459	-	Historic	Building	Unknown, n.d.
P-36-018460	-	Historic	Building	Unknown, n.d.
P-36-018461	-	Historic	Building	Unknown, n.d.
P-36-020278	-	Historic	Building	Unknown, n.d.
P-36-020279	-	Historic	Building	Hatheway and Associates, 1991
P-36-060259	-	Prehistoric	Other	Laurie S. White, 1993

4.2 ARCHIVAL RESEARCH AND CONTACT PROGRAM

4.2.1 Other Archival Research

Various additional archival sources were also consulted, including historic topographic maps and aerial imagery. These include aerials from 1938, 1948, 1959, 1966, 1978, and 1980 (NETR Online 2021) and several historic USGS topographic maps, including the 1897 and 1903 Cucamonga (1:62,500), the 1933 Ontario (1:62,500), the 1942 Ontario and Vicinity (1:31,680), and the 1954, 1967, and 1973 Ontario (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 on the 1897 or 1903 USGS Cucamonga quadrangle, but there is a road just to the north, and a wash is present directly adjacent and passing through the project area. By the 1933 USGS Ontario quadrangle, the only change is the presence of the Pacific Electric Rail Line, being present directly along the project area's northern boundary and the Arrow Highway a bit farther north; there is no change in the 1942 Ontario and Vicinity quadrangle. In the 1954 Ontario quadrangle, the new road is present to the east of the project area, and by 1967 buildings associated with the existing lumber yard are present in the project area on the Ontario quadrangle. Historic aerials show the same progress of development, beginning with agricultural fields in 1938 and 1948, though the lumber yard noted on the 1967 quadrangle is first visible on the 1959 aerial.

A search of the BERD identified 110 historical resources located within the half-mile search radius, many of them also identified in the SCCIC record search. Nine of these resources received a California Historical Resource Status Code of 6Y, determined ineligible for the National Register (NR) by consensus through Section 106 process – Not evaluated for California Register (CR) or local listing.

One hundred-one of these resources received a California Historical Resource Status Code of 7M, submitted to the California Office of Historic Preservation (OHP) but not evaluated – referred to

National Park Service. One hundred-one of these resources are located within the Pleasant View District, a City of Upland Historic District. The buildings located within the boundaries of the Rose Glen Residential Project are not included in the California Built Environment Resources Directory/State Historic Resources Inventory, nor are they included on a register or inventory of designated or eligible landmarks in the City of Upland.

4.2.2 Native American Contact Program

HELIX contacted the Native American Heritage Commission (NAHC) on September 1, 2021 for a Sacred Lands File search and list of Native American contacts for the project area. The NAHC indicated in a response dated October 5, 2021 that no known sacred lands or Native American cultural resources are within the project area, but that the area is sensitive for cultural resources. HELIX submitted outreach letters on October 29, 2021 to the Native American representatives and interested parties identified by the NAHC. Three responses have been received to date (Table 3, *Native American Contact Program Responses*). The Gabrieleno Band of Mission Indians–Kizh Nation responded on November 9, 2021. The Tribe did not identify any known tribal cultural resources or sacred lands within their response; however, the Tribe may wish to submit information regarding tribal resources during consultation with the lead agency. The Quechan Tribe of the Fort Yuma Reservation responded on November 3, 2021 that they had no comments for the proposed project and will defer to the Tribes local to the project area. If any additional responses are received, they will be forwarded to City staff. Native American correspondence is included as Appendix C (Confidential Appendices, bound separately).

Table 3
NATIVE AMERICAN CONTACT PROGRAM RESPONSES

Contact/Tribe	Response
Native American Heritage Commission	Responded on October 5, 2021 with the results of the Sacred Lands File. No tribal cultural resources or sacred lands were identified within the project area.
Gabrieleno Band of Mission Indians - Kizh Nation	Savanah Salas responded on November 9, 2021 to request lead agency information. The Tribe did not identify any known tribal cultural resources or sacred lands within their response. However, the Tribe may wish to submit information regarding tribal resources during consultation with the lead agency.
Morongo Band of Mission Indians	Bernadette Anne Brierty responded on December 27, 2021, stating that the proposed project is not located within the boundaries of the ancestral territory and traditional use area of the Cahuilla and Serrano people of the Morongo Band of Mission Indians.
Quechan Tribe of the Fort Yuma Reservation	Jill McCormick responded via email on November 3, 2021. The Tribe does not have any comments for the proposed project and will defer to the Tribes local to the project area.

5.0 SUMMARY AND MANAGEMENT RECOMMENDATIONS

A study was undertaken to identify cultural resources that are present in the Rose Glen Specific Plan Residential Project site and to determine the effects of the project on cultural resources. The project site is heavily developed with no ground visibility. As such, a pedestrian survey was not conducted for the proposed project.

A record search undertaken at the SCCIC did not identify and previously recorded cultural resources, within the project area. The results of the Sacred Lands File search identified no known tribal resources or sacred lands within the project vicinity. As recommended by the NAHC, HELIX contacted the 16 Native American representatives and interested parties identified by the NAHC (Appendix C). The outreach program resulted in the response of three tribal groups, Gabrieleno Band of Mission Indians - Kizh Nation, Morongo Band of Mission Indians, and Quechan Tribe of the Fort Yuma Reservation, none of which identified any known tribal cultural resources within the project site.

The review of historic maps and aerials illustrates minimal development near the project in the early twentieth century. However, the project is located near a wash that may have been used by prehistoric people. Development within the project vicinity began with the construction of the Pacific Electric Rail Line. While most of the land use surrounding the project area was used for agricultural purposes between 1938 and 1948, development within the project site first occurred between 1954 and 1967. As such, the entire project area has been disturbed by nineteenth and twentieth century agricultural activities, irrigation systems, dirt road formation, and transportation (railway) and utility (transmission and gas line) installation. Much of the Project area was cleared for these activities, in particular the agricultural pursuits, and the lumber yard present on the site from 1956.

5.1 MANAGEMENT RECOMMENDATIONS

Based on the results of the current study, no historical resources, as defined by CEQA, will be affected by the Rose Glen Project. However, while no historical resources or Native American tribal cultural resources have been identified within the project site, the project area may contain buried tribal and cultural resources which may be inadvertently discovered during project related construction. The existing setting of the project area is currently developed and covered by fill material which prevents the visibility of the original ground surface. As such, HELIX did not conduct a pedestrian survey of the site due to low visibility of the ground surface. However, the archival research suggests the project site may be sensitive for historic-era resources related to the Pacific Electric Rail Line, located along its northern boundary. Geologic indicators, such as the perennial wash in proximity to the project area, indicate a potential sensitivity to prehistoric cultural and tribal cultural resources. Additionally, the project site is located within alluvial soils, where there is a potential for encountering buried cultural and tribal cultural resources.

Due to this potential, it is recommended that an archaeological and Native American monitoring program be implemented if grading or other ground disturbing activities (i.e., trenching for utilities) are to occur below the current layer of fill. The monitoring program would include attendance by the archaeologist and Native American monitor at a preconstruction meeting with the grading contractor and the presence of archaeological and Native American monitors during 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 monitoring tribes, the applicant, and City staff to develop and implement appropriate mitigation measures.

In the event that human remains are discovered, the County Coroner shall be contacted. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, shall be contacted 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, archaeological survey of these areas will be required.

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Appendix A

Resumes of Key Personnel

Summary of Qualifications

Ms. Robbins-Wade has 41 years of extensive experience in both archaeological research and general environmental studies. She oversees the management of all 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 excellent relationships with local Native American communities and the Native American Heritage Commission (NAHC), as well as has supported a number of local agency clients with Native American consultation under State Bill 18 and assistance with notification and Native American outreach for Assembly Bill 52 consultation. Ms. Robbins-Wade is a Registered Professional Archaeologist (RPA) and meets the U.S. Secretary of the Interior's Professional Qualifications for prehistoric and historic archaeology.

Selected Project Experience

12 Oaks Winery Resort. 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 Utilities Undergrounding Archaeological Monitoring. 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 F11 Project. 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.

Education

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

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

Registrations/ Certifications

Caltrans,
Professionally
Qualified Staff-
Equivalent Principal
Investigator for
prehistoric
archaeology,
, Bureau of Land
Management
Statewide Cultural
Resource Use Permit
(California), permit
#CA-18-35,
, Register of
Professional
Archaeologists
#10294, 1991
County of San Diego,
Approved CEQA
Consultant for
Archaeological
Resources, 2007
, Orange County
Approved
Archaeologist 2016

Mary Robbins-Wade, RPA

Cultural Resources Group Manager

Blended Reverse Osmosis (RO) Line Project. Project Manager/ Principal Investigator for cultural resources monitoring during construction of a 24-inch recycled water pipeline in the City of Escondido. Oversaw monitoring program, including Worker Environmental Awareness Training; responsible for Native American outreach/coordination, coordination with City staff and construction crews, and general project management. Work performed for the City of Escondido.

Buena Sanitation District Green Oak Sewer Replacement Project. 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., with the City of Vista as the lead agency.

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

Dale 2199C Pressure Zone Looping Pipeline Project. Cultural Resources Task Lead for this project in Moreno Valley. Eastern Municipal Water District proposed construction of a new pipeline to connect two existing pipelines in the District's 2199C Pressure Zone. The pipeline would consist of an 18-inch-diameter pipeline between Kitching Street and Alta Vista Drive that would connect to an existing 12-inch-diameter pipeline in the northern end of Kitching Street and to an existing 18-inch-diameter pipeline at the eastern end of Alta Vista Drive. The project will improve reliability and boost the Dale Pressure Zone's baseline pressure and fire flow availabilities. Four potential alignments were under consideration; three of these bisect undeveloped land to varying degrees, while the other is entirely situated within developed roadways. Oversaw background research and field survey. Responsible for Native American outreach for cultural resources survey and co-authored technical report. Work performed under an as-needed contract for Eastern Municipal Water District.

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

Emergency Storage Pond Project. Project Manager/Principal Investigator for a cultural resources testing program in conjunction with the Escondido Recycled Water Distribution System - Phase 1. Two cultural resources sites that could not be avoided through project design were evaluated to assess site significance and significance of project impacts. Work included documentation of bedrock milling

Mary Robbins-Wade, RPA

Cultural Resources Group Manager

features, mapping of features and surface artifacts, excavation of a series of shovel test pits at each site, cataloging and analysis of cultural material recovered, and report preparation. The project is located in an area that is sensitive to both the Kumeyaay and Luiseño people, requiring close coordination with Native American monitors from both groups. Work performed for the City of Escondido.

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

Hacienda del Mar EIR. Senior Archaeologist for a proposed commercial development project for a senior care facility in Del Mar. Assisted in the preparation of associated permit applications and an EIR. Oversaw background research, updated records search and Sacred Lands File search, monitoring of geotechnical testing, coordination with City staff on cultural resources issues, and preparation of updated report. Prior to coming to HELIX, served as Cultural Resources Task Lead for the cultural resources survey for the project, conducted as a subcontractor to HELIX. Work performed for Milan Capital Management, with the City of San Diego as the lead agency.

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

Moulton Niguel Water District Regional Lift Force Main Replacement. Cultural Resources Task Lead/Principal Investigator 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. Oversaw background research and constraints analysis, Native American

Mary Robbins-Wade, RPA

Cultural Resources Group Manager

coordination, cultural resources survey, coordination with MNWD and Tetra Tech, and report preparation. Work performed for MNWD, as a subconsultant to Tetra Tech.

Murrieta Hot Springs Road Improvements Project. Principal Investigator/Cultural Resources Task Lead for cultural resources survey in support of an Initial Study/Mitigated Negative Declaration (IS/MND) for the widening of Murrieta Hot Springs Road in the City of Murrieta. The project would widen or restripe Murrieta Hot Springs Road between Winchester Road and Margarita Road from a 4-lane roadway to a six-lane roadway to improve traffic flow, as well as provide bike lanes in both directions along this segment. A new raised median, light poles, signage, stormwater catch basins, retaining walls, and sidewalks would also be provided on both sides of the roadway, where appropriate. The project area is in a location that is culturally sensitive to the Native American community. The cultural resources study included tribal outreach and coordination to address this cultural sensitivity.

Park Circle - Cultural Resources. 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. Oversaw 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, 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. 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.

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

Summary of Qualifications

Ms. Sugimoto has 10 years of professional experience in archaeology. She has worked in Southern California archaeology for 6 years, including work in historic archaeology, prehistoric archaeology, human osteology, and close coordination with Native American tribes. She has directed test and data recovery investigations, monitoring programs, and archaeological site surveys, and has prepared reports for various cultural resource management projects. She is well-versed in National Historic Preservation Act, National Environmental Policy Act (NEPA), and California Environmental Quality Act (CEQA) regulations and processes.

Selected Project Experience

Darco Project (TTM 31589) (2021). Archaeologist for cultural services provided in support of the Darco Residential Development Project, located in the City of Moreno Valley (City), Riverside County, California. HELIX was contracted by D.R. Horton to provide a Phase I archaeological study to meet the requirements of the City. The study included a records search from the Eastern Information Center; a Sacred Lands File search through the NAHC; tribal outreach with the local Native American community, as identified by the NAHC; review historic maps and aerial photographs of the project area; a field survey of approximately 36 acres; and preparation of a cultural resources survey report detailing the methods and results of the study, as well as recommendations.

Morningstar Village (2021). Archaeologist for cultural services provided in support of the Morningstar Village Project located in the community of French Valley, unincorporated Riverside County, California. HELIX was contracted by Morningstar Village LLC to provide a cultural resource study in support of a 404 Pre-Construction Notification application for a Nationwide Permits; the report addressed both CEQA and Section 106 of the National Historic Preservation Act to support agency permitting. The study included a records search from the Eastern Information Center; a Sacred Lands File search through the NAHC; tribal outreach with the local Native American community, as identified by the NAHC; review historic maps and aerial photographs of the project area; a field survey of the United States Army Corp of Engineers (USACE) permit area; and preparation of a cultural resources report detailing the methods and results of the study, as well as recommendations. An additional letter report was prepared for the USACE to summarize the cultural resources within the USACE permitting area, and additional tribal outreach was conducted at the request of USACE.

Education

Master of Arts,
Anthropology, North
Carolina State
University, Raleigh,
2015

Bachelor of Arts,
Archaeology, California
State University
Dominguez Hills, 2013

Professional Affiliations

Member, Project
Management Institute
(PMI), 2019-Present

Member, Society for
American Archaeology,
2013-Present

Kassie Sugimoto, M.A.

Cultural Resources Project Manager I

Oak Valley Town Center (2021). Archaeologist for cultural services provided in support of the Oak Valley Town Center Project located in the City of Calimesa (City), Riverside County (County), California. HELIX was contracted by Oak Valley Development Company to provide a Phase 1 cultural resources study to the standards of the City of Calimesa; the report will address both CEQA and Section 106 of the National Historic Preservation Act, to support agency permitting. The study included a records search from the Eastern Information Center; a Sacred Lands File search through the NAHC; tribal outreach with the local Native American community, as identified by the NAHC; review historic maps and aerial photographs of the project area; conduct a field survey of approximately 244 acres; and prepare a cultural resources report detailing the methods and results of the study, as well as recommendations.

Sandalwood Commercial Development Project (2021). Archaeologist for cultural services provided in support of the Sandalwood Commercial Development Project, located in the City of Calimesa (City), Riverside County, California. HELIX was contracted by J&T Investments to provide a Phase I archaeological study to meet the requirements of the City. The study included a records search from the Eastern Information Center; a Sacred Lands File search through the NAHC; tribal outreach with the local Native American community, as identified by the NAHC; review historic maps and aerial photographs of the project area; conduct a field survey of approximately 10 acres; and prepare a cultural resources survey report detailing the methods and results of the study, as well as recommendations.

Sky Canyon Sewer Main Extension (2021). Archaeologist for cultural services provided in support of the Sky Canyon Sewer Main Extension Project located in the city of Murrieta, Riverside County, California. A Cultural Resources Monitoring Plan (CRMP) was developed in consultation with the consulting Tribe for the construction of approximately 6,700 linear feet of new gravity-fed 36 inch diameter sewer main proposed by the lead agency, the Eastern Municipal Water District. HELIX provided cultural services, including Native American Outreach and Coordination, development of a CRMP, Cultural Resources Monitoring, and a letter report upon completion of the archaeological monitoring program.

McCanna Hills Addendum to an Environmental Impact Report, Riverside County, California. Archaeologist for preparation of an addendum to EIR319 previously prepared for the McCanna Ranch Specific Plan near Lake Perris in western Riverside County.

Archaeological Studies for a Riverside County Parcel (APN 436-360-009), Riverside County, California. Project Manager and Project Archaeologist for execution and management of the project contract with the client, conducted field and archival research, prepared technical documents for the City of San Jacinto. Work performed for Panorama Properties, Inc.

Lincoln Van Buren Project, Riverside, California. Archaeologist for Phase I studies for the development of a gas station. Field archaeologist for archaeological survey. Work performed for Psomas.

University of California Riverside (UCR), Riverside, California. Archaeologist for Phase I studies for as needed contract. Field archaeologist for archaeological and historic surveys. Work performed for Psomas.

Cultural Resources Studies for the City of San Jacinto, San Jacinto, California. Project Manager and Project Archaeologist. Executed and managed the project's contract with the client, conducted field and archival research, prepared technical documents for the City for Assessor Parcel Numbers 439-112-032, 033, 034, 036, 003, 004, 007, 008, and 009. Work performed for Mark Development.

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.