Pasadena Sunset Complex Project

Cultural Resources Assessment Report

June 2021 | 00407.00036.001

Submitted to:

City of Pasadena
Water and Power Department
150 South Los Robles Avenue, Suite #200
Pasadena, California 91101

Prepared for:

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National Archaeological Database Information

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Client/Project:	Kennedy Jenks / Pasadena Sunset Complex Project
Report Date:	June 2021
Report Title:	Cultural Resources Assessment for the Pasadena Sunset Complex Project, Pasadena, Los Angeles County, California
Submitted to:	City of Pasadena
Type of Study:	Cultural Resources Assessment
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Key Words:	Los Angeles County; Township 1 North, Range 12 West; City of Pasadena; Sunset Reservoir; Arroyo Seco; negative archaeological survey; sensitivity assessment; no resources found.

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
APE	Area of Potential Effects
APN	Assessor's Parcel Number
BLM	Bureau of Land Management
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
City	City of Pasadena
CLG	Certified Local Government
CRHR	California Register of Historical Resources
GLO	General Land Office
HELIX	HELIX Environmental Planning, Inc.
HRER	Historical Resources Evaluation Report
HRG	Historic Resources Group
I-	Interstate
JPL	Jet Propulsion Lab
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
project	Sunset Complex Project
PWP	Pasadena Water and Power Department
SCCIC	South Central Coastal Information Center
SHPO	State Historic Preservation Officer
SR	Sunset Reservoir
TCP	Traditional Cultural Properties
TCR	Tribal Cultural Resources
USGS	U.S. Geological Survey
VOCs	Volatile Organic Compounds

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) was contracted by Kennedy Jenks to provide cultural resources services for the Sunset Complex Project (project) in the City of Pasadena, Los Angeles County, California. The project is a proposed replacement of existing reservoirs and associated structures that includes the demolition of existing structures and hardscape within the approximately 9.15-acre project site. 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. 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), Section 106 of the National Historic Preservation Act (NHPA), as amended, and City of Pasadena cultural resources guidelines. A separate Historical Resources Evaluation Report (HRER) is being prepared to address the existing built environment resources.

The records search received from the South Central Coastal Information Center (SCCIC) in May 2021 indicated that six previous cultural resources studies have been conducted within a half-mile of the project area, none of which occurred within the project site. The records search results also indicated that a total of 84 cultural resources have been previously recorded within a half-mile of the project area, all of them are historic built environment resources; however, no resources have been recorded within the project area prior to this survey.

The field investigations included a pedestrian survey of the project area by a HELIX archaeologist on June 3, 2021. Due to the completely developed nature of the project site, exposed ground surfaces were quite limited. The survey did not result in the identification of any cultural material within the project area.

Based on the results of the current study, no historic properties per the National Historic Preservation Act of historical resources per the California Environmental Quality Act would be affected by the project. However, due to the cultural sensitivity of the project region and the alluvial setting of the project area, it is recommended that grading and other ground-disturbing activities be monitored by a qualified archaeologist and a Native American monitor, as discussed in this report. 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 and Pasadena Water and Power Department staff to develop and implement appropriate avoidance or mitigation measures.

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1.0 INTRODUCTION

HELIX Environmental Planning, Inc. (HELIX) was contracted by Kennedy Jenks to provide cultural resources services for the Pasadena Sunset Complex Project (project) in the City of Pasadena (City), Los Angeles County, California. The project is a proposed upgrade and replacement of reservoirs, including the demolition of existing structures and hardscape. 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), as well as Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and City guidelines and regulations.

1.1 PROJECT LOCATION

The project is located in the City of Pasadena in Los Angeles County (Figure 1, *Regional Location*). The project is located 250 feet east of Interstate- (I-)210 (Foothill Freeway) and 0.75 mile north of State Route 134 (Ventura Freeway) within an unsectioned portion of Township 1 North, Range 12 West, on the U.S. Geological Survey (USGS) 7.5' Pasadena quadrangle (Figure 2, *USGS Topography*). The approximately 9.15-acre project site is located within Assessor's Parcel Number (APN) 5728-021-916 and is bordered by Sunset Avenue to the east, East Mountain Street to the south, Glen Avenue to the west, and mixed residential and commercial properties to the north (Figure 3, *Aerial Photograph*).

1.2 PROJECT DESCRIPTION

The project proposes the demolition of the existing Sunset Reservoir complex and replacement with new reservoirs, along with a groundwater treatment facility. Both reservoirs will be removed and replaced with new prestressed concrete reservoirs. As the "A" Basin (where water has been previously blended) is to be demolished, an inlet clearwell will be installed upstream of the reservoirs. Additionally, a new ground water treatment plant will be developed, in order to treat for perchlorate and volatile organic compounds (VOCs). Replacement and construction of associated piping, inlet and outlet, valves, and hardscaping will also occur across the project area.

1.3 REGULATORY FRAMEWORK

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

1.3.1 National Historic Preservation Act

Federal regulations that would be applicable to the project if there is a federal nexus (e.g., permitting or funding from a federal agency) consist of the NHPA and its implementing regulations (16 United States Code 470 et seq., 36 Code of Federal Regulations [CFR] Part 800). Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on "historic properties", that is, properties (either historic or archaeological) that are eligible for the 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.

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

Under Section 106 of the NHPA, actions that alter any of the characteristics that qualify a property for eligibility for listing in the NRHP "in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" (36 CFR 800.5[a]) constitute an adverse effect to the historic property.

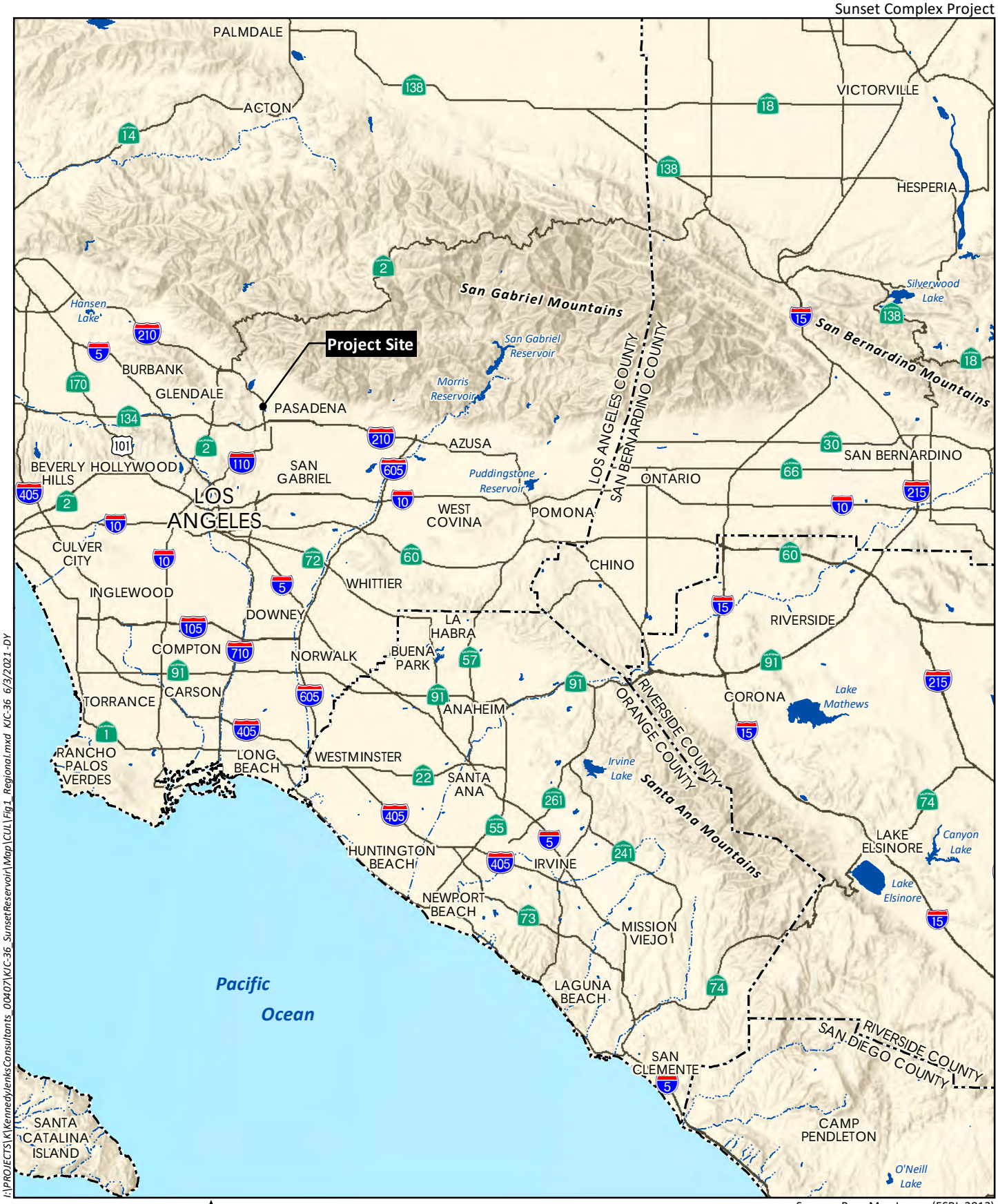
1.3.2 California Environmental Quality Act

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

- resource(s) listed or determined eligible by the State Historical Resources Commission for listing in the 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])



I:\PROJECTS\K\KennedyJenksConsultants_00407\KJC-36_SunsetReservoir\Map\CUL\Fig1_Regional.mxd KJC-36 6/3/2021 -DY

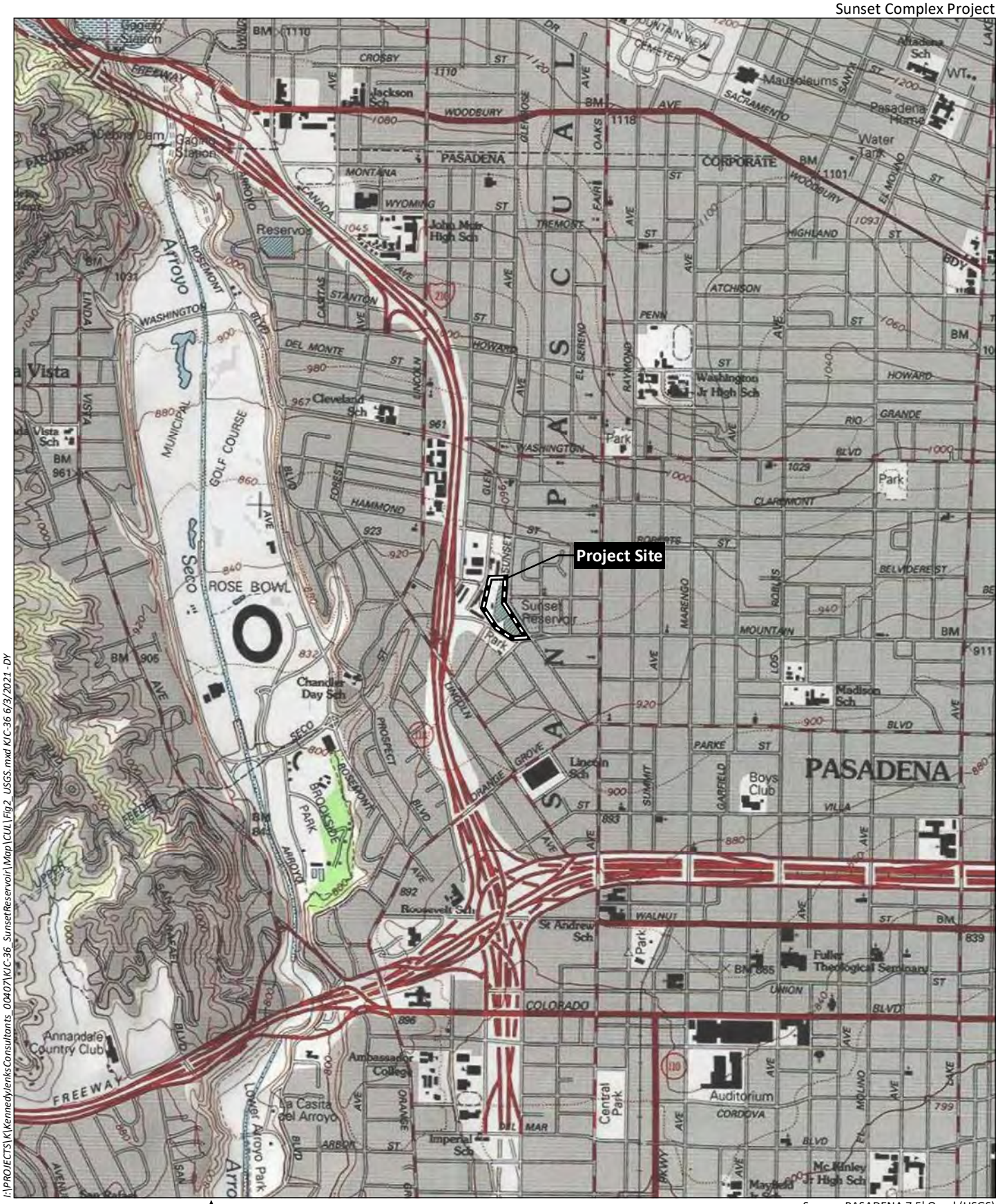
0 10 Miles

Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



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0 2,000 Feet

Source: PASADENA 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

Sunset Complex Project

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0 200 Feet

Source: Aerial (Nearmap, 2020)

HELIX Environmental Planning

Aerial Photograph

Figure 3

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

(1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

(2) It is associated with the lives of persons important to local, California, or national history;

(3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values;

(4) It has yielded or has the potential to yield information important to the prehistory or history of the local area, California, or the nation.

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

1.3.3 Pasadena General Plan

Pasadena's General Plan Land Use Element was adopted in 2015, and consists of a collection of objectives, policies, and implementation measures designed to define and implement the vision of the community in narrative and graphic terms using established development criteria and standards that help guide land use actions. It describes the allowed intensities, types, configurations, and locations of land uses throughout the City, which include residential, commercial, mixed-use, industrial, open space, recreation, and public uses.

Identified as part of the General Plan, was the significance of historic buildings, properties, districts, landscapes, and civic places on the identity and character of Pasadena. Goal 8, Historic Preservation, was designed in order to preserve and enhance Pasadena's cultural and historic resources, the policies of which are detailed below;

> Goal Eight. Historic Preservation. Preservation and enhancement of Pasadena's cultural and historic buildings, landscapes, streets and districts as valued assets and important representations of its past and a source of community identity, and social, ecological, and economic vitality.
>
> - **8.1:** Identify and Protect Historic Resources. Identify and protect historic resources that represent significant examples of the City's history.
>
> - **8.2:** Historic Designation Support. Provide assistance and support for applicants applying for designation of a historic resource through a clear, thorough, and equitable process that identifies if monuments, individual or landmark districts, historic signs or landmark trees are eligible for designation based on adopted evaluation criteria.
>
> - **8.3:** Preservation Efforts. Support preservation and restoration efforts through education, facilitation, and incentive programs.

- **8.4**: Adaptive Reuse. Encourage sensitive adaptive re-use including continuing the historic use of historic resources to achieve their preservation, sensitive rehabilitation, and continued economic and environmental value.

- **8.5**: Scale and Character of New Construction in a Designated Landmark and Historic Districts. Promote an architecturally sensitive approach to new construction in Landmark and Historic districts. Demonstrate the proposed project's contextual relationship with land uses and patterns, spatial organization, visual relationships, cultural and historic values, and relationships in height, massing, modulation, and materials.

- **8.6:** Infrastructure and Street Design Compatibility. Encourage street design, public improvements, and utility infrastructure that preserves and is compatible with historic resources.

- **8.7:** Preservation of Historic Landscapes. Identify, protect, and maintain cultural and natural resources associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

- **8.8:** Evolving Preservation Practices. Continue to implement practices for historic preservation consistent with community values and conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, California Historical Building Code, State laws, and best practices.

- **8.9:** Maintenance. Support and encourage maintenance and upkeep of historic resources to avoid the need for major rehabilitation and to reduce the risk of demolition, loss through fire, deterioration by neglect, or impacts from natural disasters.

- **8.10:** Enforcement. Ensure that City enforcement procedures and activities comply with local, State, and Federal historic preservation requirements and fosters the preservation of historic resources.

1.3.4 Local Regulations

Sections 17.62.010 et seq. of the Pasadena Municipal Code specify significance criteria for the designation of historic resources, procedures for designation, and review procedures to encourage, enhance, and promote historic preservation. The historic preservation program establishes criteria for the designation of historic monuments, landmarks, historic signs, landmark trees, or landmark districts, consistent with the National Register of Historic Places for evaluating historic properties. These criteria are intended to promote the adaptive reuse of the City's historic resources, enhance and preserve historically significant structures, and stabilize and improve property values. These sections also serve to fulfill the City's responsibility as a Certified Local Government (CLG) under federal preservation laws and conducting Section 106 and CEQA reviews. They promote tourism and public awareness of conservation through rehabilitation, restoration, and maintenance of existing buildings.

The Certified Local Government Program is jointly administered by the National Park Service and State Historic Preservation Offices to certify local communities in becoming recognized as a CLG. Pasadena is a

CLG, and as such, is committed to preserving, protecting, and increasing awareness of historic places. As a CLG, Pasadena must continually improve its preservation programs and is eligible for state and federal grants to support efforts such as preservation plans, historic resources surveys, and preservation education and outreach programs.

Any property in Pasadena that is found eligible for designation as a local landmark is considered to meet the definition of historical resource as defined by State CEQA Guidelines Section 15064.5. Pursuant to Municipal Code Section 17.62.040, a landmark meets one or more of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of the history of the City, region, or state.
- It is associated with the lives of persons who are significant in the history of the City, region, or state.
- It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the City or the region, or possesses artistic values of significance to the City or to the region.
- It has yielded or may be likely to yield, information important locally in prehistory or history.

1.3.5 Native American Heritage Values

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

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

In California, the Traditional Tribal Cultural Places Bill of 2004 requires local governments to consult with Native American Tribes during the project planning process, specifically before adopting or amending a General Plan or a Specific Plan, or when designating land as open space for the purpose of protecting Native American cultural places. The intent of this legislation is to encourage consultation and assist in the preservation of Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance.

California State Assembly Bill (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 TCP; however, it incorporates consideration of local and state significance and required mitigation under CEQA. Per PRC Section 21080.3, a CEQA lead agency must consult with any California Native American tribe that requests consultation, and that is traditionally and culturally affiliated with the geographic area of a proposed project, to identify resources of cultural or spiritual value to the tribe, even if such resources are already eligible as historical resources as a result of cultural resources studies. 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 AREA OF POTENTIAL EFFECT

Pursuant to 36 CFR 800.16(d), the Area of Potential Effect (APE) is the geographic area within which an undertaking may directly or indirectly alter the character or use of historic properties. The APE for the project consists of the project property, totaling approximately 9.15 acres (see Figure 3). The Sunset Reservoir complex is owned and operated by the City of Pasadena Water and Power Department (PWP).

1.5 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 Cultural Resources Task Lead and Principal Investigator; she provided senior technical oversight and contributed to this report. Trevor Gittelhough M.A., RPA is the primary report author, and Kassie Sugimoto, M.A., RPA conducted the field survey. Ms. Robbins Wade and Ms. Sugimoto meet the qualifications of the Secretary of Interior's Standards and Guidelines for archaeology. Mx. Gittelhough meets the qualification of the Secretary of Interior's Standards and Guidelines for archaeology and history. Resumes for key project personnel are presented in Appendix A.

2.0 PROJECT SETTING

2.1 NATURAL SETTING

The project area is located south of the San Gabriel Mountains, in the City of Pasadena. 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 (Dibblee 1989). Soils consist of soils from the Urban land-Palmview-Tujunga complex (0 to 5 percent slopes); this series consists of well-drained soils formed in stable and competent alluvium, derived primarily from granite (NRCS 2017a, 2017b).

The project area is set within an alluvial fan formed from streams flowing from the San Rafael Hills, depositing soils from at the base of dissected hills to the south and above the Santa Clarita River floodplain. The south-flowing Arroyo Secco is located approximately 0.8 mile west. The project area is currently occupied by the Sunset Reservoir No. 1 and No. 2, along with associated facilities, and has been developed since at least 1888 (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.

Soil conditions in the project area are described in the Sunset Reservoir Perchlorate Treatment Facility geotechnical report (Diaz, Yourman, & Associates 2009). The geotechnical investigation included a review of previous reports, as well as the excavation of two bores sampled across the project area. Soil profiles were recorded for each of the bores. The upper ten feet of subsurface sediments consist of dark grayish brown, moist, loose to medium dense, fine to coarse-grained sands with little gravel, with sediments below that comprised of dark brown and olive brown, moist, medium dense to very dense, fine- to coarse-grained sands (Diaz, Yourman, & Associates 2009). These sediments are designated by the Natural Resources Conservation Service (NRCS) as part of the Palmview-Tujunga complex, sandy loam series, which consists, of well-drained soils formed in stable and competent alluvium, derived primarily from granite (NRCS 1999).

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 B.C.
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.	6000–3000 B.C.

Chronological Period	Characteristics	Date Range
Intermediate	Shifts in strategies to a heavier emphasis on maritime subsistence strategies, along with a wider use of plant foods, that trend towards adaptations to regional and local resources. Fully flexed burials, often placed face-down or face-up, and oriented toward the north or west.	3000 B.C.–A.D. 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.	A.D. 500–Historic Contact

2.2.2 Ethnohistory

2.2.2.1 Gabrieliño

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 1978:538; 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 1978:546; 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 Tataviam

Boundaries between different Indigenous groups are fluid, moving as groups gain and lose status and power. The Tataviam are the next closest Indigenous group near the project, and their territory was located primarily in the upper drainage of the Santa Clara River, with lands extending east to the southern fringe of Antelope Valley, but centered on the south sides of the Liebre, Sawmill, and Sierra Pelona Mountains.

Like the Gabrieleño/Tongva, the Tataviam language is a part of the Takic branch of the Uto-Aztecan language family (Mithun 2001:540). The Tataviam language probably began to differentiate itself from the others in the language group around 1000 B.C. (King and Blackburn 1978:535). The name "Tataviam"

itself, is derived from the Kitanemuks' name for them (King and Blackburn 1978:535). Similarly, the Ventureño Chumash referred to them as the "Alliklik" in order to separate them from the Beñeme Serrano in the western Mojave Desert and Antelope Valley, and both names are used by ethnographers and archaeologists (Kroeber 1925:614).

Information about Tataviam social organization and political structure is limited, but there is no evidence to indicate a substantial difference between their structure and those of the Kitanemuk and Gabrieleño/Tongva groups. Tataviam villages ranged from large centers of around 200 individuals to small settlements of 10 to 15 people (King and Blackburn 1978:536). Intermediate-sized villages were dispersed between the larger centers, with smaller villages spaced around the larger villages. It was estimated that the Tataviam population at contact was no more than 1,000 people. Mortuary practices probably included cremation, as well as a mourning ceremony practiced in late summer or early fall (King and Blackburn 1978:535). With the construction of the San Fernando Mission in 1797, the Tataviam were forced to settle within the Mission, though some were also taken to Mission San Gabriel as well.

Archaeological data, the primary source of information available, indicate broad similarities among the Tataviam, Chumash, and Gabrieleño/Tongva (King and Blackburn 1978:536). Considering their environment and geographical range, it is likely that Tataviam relied more heavily on yucca as a staple than acorns. Other foods most likely included sage seeds, juniper seeds, and islay berries, with hunting focused on small mammals such as rabbits and rodents but also included deer and antelope. Extensive trade networks existed between the Indigenous groups in the region, and the Tataviam traded lithic material and large game animals with coastal groups for marine resources, shell, asphaltum, and steatite.

2.2.2.3 Indigenous Communities in Pasadena

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.

Even with the growing collection of archaeological evidence, making a conclusive determination on whether a specific assemblage represents the remains of a former village site can be difficult. Although the precise location of any given village is subject to much speculation, the vicinity of Pasadena once contained many Gabrieleño/Tongva villages, including several concentrated along the banks of the Arroyo Seco and its offshoots. This type of settlement pattern concentrated along waterways is reflected in historical maps published by the Southwest Museum (1962; reprinted in Johnston 1962) and George Kirkman (1938). Maps such as these convey a general sense of significant historical areas based

on the geographic information available at the time and are considered as a representational depiction of these locations rather than explicit geographic points.

Known ethnographically documented villages within the Pasadena vicinity included *Akuronga*, *Alyeupkigna*, *Hahamon'ga*, *Haramoknga*, *Puntitavjatngna*, and *Sisitkanonga*. The closest of these villages to the project site is *Hahamon'ga* (alternative spellings and names include *Hahmogna*, *Hahamog-na*, and *Xaxaamonga*). Current ethnographic thought places this settlement in the upper part of the Arroyo Seco, in the area now owned by the Jet Propulsion Lab (JPL), approximately 2.65 miles north-northwest of the project site. Another village of the same name is located in Glendale, and it is possible that these were two separate locations used by the same band. The village of *Akuronga* (or *Akuuronga*) is purported to be located near La Presa Drive and Huntington Drive, approximated 4.65 miles southeast of the project site. *Sonaanga* has been identified as being located at the current location of San Marino High School, approximately 4.15 miles southeast, while *Alyeupkigna* (or *Aluupkenga*) is located six miles east-southeast near Baldwin Lake on the Santa Anita Ranch, and *Sisitkanonga* (or *Sisitcanonga*) is located along the banks of Eaton Creek, approximately 4.8 miles northeast of the project. Like *Hahamon'ga*, these other villages were described in ethnographic accounts, but the exact locations are unknown (McCawley 1996).

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. Kearney and Commodore Robert F. Stockton in early January of that year to challenge the California resistance, which was led by General Jose Maria Flores. The American party scored a decisive victory over the Californios in the Battle of the Rio San Gabriel and at the Battle of La Mesa the following day, effectively ending the war and opening the door for increased American immigration (Harlow 1992:193–218). Hostilities officially ended with the signing

of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming, representing nearly half of Mexico's pre-1846 holdings. California joined the Union in 1850 as the 31st state (Wilkman and Wilkman 2006:15). Though the discovery of gold in northern California in 1848 gave rise to the California Gold Rush, the first California gold was found in Los Angeles County in 1842. The large strike at Sutter's Creek seven years later led to an enormous influx of American citizens in the 1850s and 1860s, and these "forty-niners" rapidly displaced the old rancho families. One year after the discovery of gold, nearly 90,000 people journeyed to the California gold fields. With most miners drawn to central California by its well-known strikes, Los Angeles attracted people who were largely peripheral to the Gold Rush.

Pasadena

Originally a part of Rancho del Rincon de San Pascual, the area that is now Pasadena was sold by Manuel Garfias to Benjamin Eaton and Dr. John S. Griffin (Wood 1917). In 1874, the California Colony of Indiana, formed by Dr. Thomas B. Elliott and consisting of a group of families from Indiana, purchased land from Dr. John S. Griffin and established the community of Pasadena (Reid 1895). In 1886, the same year that saw the completion of the Santa Fe Railroad, Pasadena was incorporated. With the railroad, the region's Mediterranean climate brought in a growing number of Eastern tourists, which Pasadena began to capitalize upon. They built sewers, paved streets, and added electric lighting to support the growing tourist industry, along with numerous hotels and guest houses (Carpenter 1984). In addition, the land boom instigated by the completion of the railroad created a growing population in Los Angeles that used Pasadena as a suburb. The use of local rail lines and electric streetcar lines, developed by such individuals as Henry Huntington, made such growth possible.

With the advent, and subsequent popularity, of the automobile industry, Pasadena and Los Angeles formed a partnership to construct the Colorado Street Bridge. Completed in 1913, this bridge was the first of many that allowed easy access across the Arroyo Seco and was soon followed by others such as the San Rafael Bridge and the Holly Street Bridge. The growth of automobile use further impacted Pasadena, as the city saw an increase in population from 45,000 in 1920 to over 76,000 by 1930 (Historic Resources Group [HRG] 2007). This culminated with the construction of not only California's but the United States' first freeway, the Arroyo Seco Parkway (also known as the Pasadena Freeway or CA-110), completed in 1940. By 1939, however, the Depression had devastated the tourism industry, and many of Pasadena's grand hotels were shuttered.

Like most of the United States, Pasadena saw a revival as World War II began. As California became a major staging area for the Pacific Theater of the war, high-tech manufacturing and scientific companies took advantage of the utilities and development of Pasadena and made it their home. This soon included NASA's Jet Propulsion Laboratory, which is still in use today. After the war, Pasadena saw further growth and diversification, with an influx of immigrants from Central America and Armenia, and African-Americans as part of the Second Great Migration.

Sunset Reservoir

The Sunset Reservoir Complex is part of the Pasadena Water & Power water distribution system and consists of two reservoirs, Sunset Reservoir No. 1 (SR-1) and Sunset Reservoir No. 2 (SR-2), that are supplied by a common inlet facility, referred to as A-Basin. SR-1 was constructed in 1888 as an open reservoir but was updated in 1899 to include a wood-framed roof and corrugated steel deck, while SR-2

was constructed in 1900; however, documents of its construction are difficult to obtain. In 1934, a four-foot concrete wall was constructed along the perimeters of both reservoirs in order to increase their storage capacity, and the roof on SR-1 was raised to accommodate the increase by splicing the original posts with new posts (Carollo 2015). The same year, a facility to aerate the water received from San Gabriel was built adjacent to the reservoirs. A full history of the project site and its structures is addressed in a Historical Resources Evaluation Report (HRER) prepared by HELIX and submitted under separate cover (McCausland 2021).

3.0 METHODS

3.1 RECORDS SEARCH

HELIX staff requested a record search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) on April 5, 2021. The records search covered a 0.5-mile radius around the project area and included the identification of previously recorded cultural resources and locations and citations for previous cultural resources studies. A review of the CRHR, the state Office of Historic Preservation (OHP) historic properties directory, and Local Register was also conducted. The records search summary is included as Appendix B (Confidential Appendices, bound separately).

3.2 NATIVE AMERICAN CONTACT PROGRAM

HELIX contacted the Native American Heritage Commission (NAHC) on April 6, 2021, for a Sacred Lands File search and a list of Native American contacts for the project area. Letters were sent on May 17, 2021, to the eight Native American representatives and interested parties identified by the NAHC. Native American correspondence is included as Appendix C (Confidential Appendices, bound separately).

3.3 OTHER ARCHIVAL RESEARCH

Various archival sources were also consulted, focused on property-specific historical information and ethnographic literature to identify relevant background for the project area and its historical inhabitants. Research focused on a variety of primary and secondary materials, including historical maps, aerial and ground photographs, ethnographic reports, and technical reports prepared for the project. Sources consulted include the following: Huntington Library Digital Archives (plats); University of California, Santa Barbara Digital Library (aerial photographs); USGS historical topographic maps; and the Bureau of Land Management (BLM) General Land Office (GLO) Records. The purpose of this research was to identify historic structures and land use in the area.

3.4 ARCHAEOLOGICAL SURVEY

A pedestrian survey of the project site was conducted on June 3, 2021, by HELIX staff archaeologist Kassie Sugimoto. Due to the completely develop nature of the project site, standard transects were not used, although the survey consisted of a systematic inspection of all areas of exposed ground surface for evidence of the presence of prehistoric artifacts, historic artifacts, sediment discoloration that might indicate the presence of cultural middens or subsurface features, roads and trails, and depressions and other features that might indicate the former presence of structures or buildings. The project area was

photographed using a digital camera. All field notes, photographs, and records related to the current study are on file at the HELIX office in La Mesa, California.

3.5 SENSITIVITY ASSESSMENT

In circumstances where a known archaeological or tribal cultural resource is not present, HELIX assessed the potential for the presence of an undocumented resource (i.e., sensitivity). Careful consideration of the broad historical use of the project vicinity and the specific physical setting of the project, including an assessment of the likelihood of whether or not the area could contain buried material, was undertaken by a qualified HELIX archaeologist. As no subsurface archaeological investigations were undertaken as part of this assessment, the resulting sensitivity determination is by nature qualitative, ranging along a scale of probability for encountering cultural resources, designated here as low, moderate, and high. In general, for areas in which there are few indicators of prehistoric habitability, such as water sources or known sites, and poor physical integrity within the project site due to historic and modern disturbances, the resulting sensitivity assessment would be low. Areas near natural features or known sites affiliated with Native Americans, and that may have sediments present dating to the time period, would have a sensitivity assessment that would be moderate to high.

4.0 RESULTS

4.1 PREVIOUS SURVEYS

The results of records search received from SCCIC on May 10, 2011, identified six previous cultural resource studies within the half-mile record search limits, none of which occurred within the project site (Table 1, *Previous Studies within Half Mile of the Project Area*). Five of the studies were archaeological surveys or site visits, one of which included a historic resources survey; the remaining report title does not indicate the type of study but appears to have been a site visit/survey as well. These reports are summarized below in Table 1.

Table 1
PREVIOUS STUDIES WITHIN HALF MILE OF THE PROJECT AREA

Report Number (LA-)	Year	Author	Report Title
00375	1978	David M. Van Horn	Ultrasystems Project: Archaeological Report
05249	2000	Philomene C. Smith	Negative Archaeological Survey Report: Route 210:kp30.3/40.2-170-129971
07441	2005	Wayne H. Bonner	Cultural Resource Records Search and Site Visit Results for Cingular Telecommunications Facility Candidate La-987-01 (sv-025-01) Cingular Collocation, 369 West Washington Boulevard, Pasadena, Los Angeles County, California.
07457	2006	Lorna Billat	Pintoresca Park/la-0121a
08814	2006	Wayne H. Bonner and Sarah A. Williams	Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate Lsancac155, 1190 North Fairoaks, Avenue, Pasadena, Los Angeles County, California
12284	2013	Carrie Chasteen	Historical Resources and Archaeological Survey Report for the Installation of Soundwall on I-210 Project

4.2 PREVIOUSLY RECORDED RESOURCES

The SCCIC has a record of 84 previously recorded cultural resources within a 0.5-mile radius of the project, but none have been recorded within the project area (Table 2, *Previously Recorded Resources within Half Mile of the Project Area*). All the resources recorded within the 0.5-mile search radius consist of historic built environment resources, including historic buildings and structures, districts and their contributing elements, and a park. This includes the Bungalow Courts of Pasadena, a historic district, and 82 other historic buildings with addresses on the OHP Historic Property list. All resources are summarized below in Table 2.

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

Primary Number (P-19-##)	Trinomial (CA-LA-#)	Age	Description	Recorder, Date
179697	N/A	Historic	Billson House	J F Merritt, City of Pasadena, 1977
180076	N/A	Historic	950 N Marengo	C McAvoy, HRG, 1991
180085	N/A	Historic	Prospect Historic District	J. C. Terell, Pasadena Heritage, 1981
180088	N/A	Historic	Samuel Merrill House; Voided - 19-183241; Other - Merrill-Grider House	T. Gregory, The Building Biographer, 2000
180107	N/A	Historic	Sarah A Menning House	C McAvoy, HRG, 1993
180108	N/A	Historic	Dowling-Rodriguez House	C McAvoy, HRG, 1993
180109	N/A	Historic	Edwin Michner House	C. McAvoy, HRG, 1993
180110	N/A	Historic	Don Ferguson House	C. McAvoy, HRG, 1993
180112	N/A	Historic	581 N Raymond	C McAvoy, HRG, 1993
180113	N/A	Historic	Hugh B Rice House	C. McAvoy, HRG, 1993
180115	N/A	Historic	666 N Raymond	C. McAvoy, HRG, 1993
180116	N/A	Historic	Bell House	C. McAvoy, HRG, 1993
180117	N/A	Historic	Card House	C. McAvoy, HRG, 1993
180225	N/A	Historic	Sinclair House	G. Sullivan, Pasadena Cultural Heritage Program, 1978

Table 2 (cont.)
PREVIOUSLY RECORDED RESOURCES WITHIN HALF MILE OF THE PROJECT AREA

Primary Number (P-19-##)	Trinomial (CA-LA-#)	Age	Description	Recorder, Date
180227	N/A	Historic	524 N Fair Oaks	W. & M. Dean, Cultural Heritage Program, 1977
180235	N/A	Historic	40 W Peoria	C. McAvoy, HRG, 1993
180236	N/A	Historic	48 W Peoria	C. McAvoy, HRG, 1993
180237	N/A	Historic	58 W Peoria	C. McAvoy, HRG, 1993
180238	N/A	Historic	66 W Peoria	C. McAvoy, HRG, 1993
180239	N/A	Historic	78 W Peoria	C. McAvoy, HRG, 1993
180691	N/A	Historic	N Lincoln Court; Other - Bungalow Court; Voided - 19-184328; Voided - 19-183847	L. Kliwinski, Thirtieth Street Architects, 1994
180695	N/A	Historic	1274-1282 N Raymond Court; Other - Bungalow Court	L. Kliwinski, Thirtieth Street Architects, 1994
180737	N/A	Historic	Kosy Knook Court; Other - Bungalow Court	L. Kliwinski, Thirtieth Street Architects, 1994
180882	N/A	Historic	895-899 N Fair Oaks Ave	D. Miller, Urban Conservation, 1982
180883	N/A	Historic	889-893 N Fair Oaks Ave	D. Miller & N. Impostato, Urban Conservation, 1982
180884	N/A	Historic	867-875 N Fair Oaks Ave	D. Miller, Urban Conservation, 1983
180885	N/A	Historic	841 N Fair Oaks Ave	D. Miller, Urban Conservation, 1983
180887	N/A	Historic	Anderogg Residence	D. Miller, Urban Conservation, 1983
180888	N/A	Historic	735 N Fair Oaks Ave	D. Miller, Urban Conservation, 1982

Table 2 (cont.)
PREVIOUSLY RECORDED RESOURCES WITHIN HALF MILE OF THE PROJECT AREA

Primary Number (P-19-##)	Trinomial (CA-LA-#)	Age	Description	Recorder, Date
180889	N/A	Historic	F Mull Residence	H. J. McCreight, Urban Conservation, 1982
180890	N/A	Historic	886 N Fair Oaks Ave	H. McCreight & D. Miller, Urban Conservation, 1982
180891	N/A	Historic	Doane Residence	D. Miller & N. Impostato, Urban Conservation, 1983
180892	N/A	Historic	790 N Fair Oaks Ave	Unknown
180893	N/A	Historic	820 N Fair Oaks Ave	Unknown
180894	N/A	Historic	832 N Fair Oaks Ave	Unknown
180895	N/A	Historic	790, 820, 832 N Fair Oaks Ave	D. Miller, Urban Conservation, 1983
181066	N/A	Historic	Decker residence; Resource Name - Frank Decker House	D. Miller, Urban Conservation, 1983
182119	N/A	Historic	St Barnabas Church	D. Miller, Urban Conservation, 1985
182168	N/A	Historic	Court @ 940-948 N Raymond Ave; Voided - 19-187069; Voided - 19-180694	L. Kliwinski, 1994
182169	N/A	Historic	Clarence McMillian House	D. Miller, Urban Conservation, 1985
182184	N/A	Historic	George Wharton & Emma James House	D. Miller, Urban Conservation, 1985
182202	N/A	Historic	Bungalow Courts	D. Miller, Urban Conservation, 1985
182230	N/A	Historic	1036 Summit Ave	D. Miller, Urban Conservation, 1985

Table 2 (cont.)
PREVIOUSLY RECORDED RESOURCES WITHIN HALF MILE OF THE PROJECT AREA

Primary Number (P-19-##)	Trinomial (CA-LA-#)	Age	Description	Recorder, Date
183111	N/A	Historic	La Pintoresca Library	M. Valentine, Urban Conservation, 1984
183112	N/A	Historic	La Pintoresca Park	M. Valentine, Urban Conservation, 1984
183420	N/A	Historic	H L Huntington	J. Draeger & C. Anderson, Urban Conservation, 1989
183827	N/A	Historic	Raymond Court	L. Kliwinski, 1994
183828	N/A	Historic	Raymond Court	Unknown
183829	N/A	Historic	Raymond Court	Unknown
183830	N/A	Historic	Raymond Court	Unknown
183831	N/A	Historic	Raymond Court	Unknown
184209	N/A	Historic	534 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184210	N/A	Historic	Carroll Building	S. DeWolfe, Urban Conservation, 1990
184242	N/A	Historic	546 N. Fair Oaks Drive	Unknown
184243	N/A	Historic	547 N. Fair Oaks Drive	Unknown
184244	N/A	Historic	559 N. Fair Oaks Drive	Unknown
184245	N/A	Historic	565 N. Fair Oaks Drive	Unknown
184246	N/A	Historic	650 N. Fair Oaks Drive	Unknown
184300	N/A	Historic	566-572 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184301	N/A	Historic	574-578 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184302	N/A	Historic	584 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184303	N/A	Historic	587-589 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184304	N/A	Historic	590 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184305	N/A	Historic	599 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184306	N/A	Historic	600 N. Fair Oaks Drive	C. McAvoy, HRG, 1993

Table 2 (cont.)
PREVIOUSLY RECORDED RESOURCES WITHIN HALF MILE OF THE PROJECT AREA

Primary Number (P-19-##)	Trinomial (CA-LA-#)	Age	Description	Recorder, Date
184307	N/A	Historic	604 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184308	N/A	Historic	512 N. Fair Oaks Drive	C. McAvoy, HRG, 1993
184325	N/A	Historic	520 Lincoln	C. McAvoy, HRG, 1993
184326	N/A	Historic	Wampler Apts.	C. McAvoy, HRG, 1993
184327	N/A	Historic	527 Lincoln	C. McAvoy, HRG, 1993
184329	N/A	Historic	557-559 Lincoln	C. McAvoy, HRG, 1993
184330	N/A	Historic	94 W. Peoria	C. McAvoy, HRG, 1993
184331	N/A	Historic	100 W. Peoria	C. McAvoy, HRG, 1993
184333	N/A	Historic	41 W. Villa	C. McAvoy, HRG, 1993
184334	N/A	Historic	55 W. Villa	C. McAvoy, HRG, 1993
184348	N/A	Historic	47 W. Villa	Unknown
184715	N/A	Historic	Rose & Capatano Confectionary	S. DeWolfe, Urban Conservation, 1990
184716	N/A	Historic	Patterson-Sanders Garage	S. DeWolfe, Urban Conservation, 1990
184717	N/A	Historic	J B Asman Barber Shop	S. DeWolfe, Urban Conservation, 1990
189992	N/A	Historic	New Fair Oaks Historic District	Unknown
189997	N/A	Historic	Bristol-Cypress Historic District	Unknown
190332	N/A	Historic	Gossett Residence	Carrie Chasteen, Parsons, 2013
190590	N/A	Historic	Pasadena Arroyo Parks and Recreation District, NRHP Registered District	Carrie Chasteen, Parsons, 2013
190680	N/A	Historic	Bungalow Courts of Pasadena, Historic District	Teresa Grimes, Pasadena Heritage, 2007

4.3 NATIVE AMERICAN CONTACT PROGRAM

HELIX contacted the NAHC on April 6, 2021, for a Sacred Lands File search and a list of Native American contacts for the project area. The NAHC indicated in a response dated April 21, 2021, that no known sacred lands or Native American cultural resources are within the project area, but that the absence of specific site information in the Sacred Lands File does not indicate the absence of cultural resources in the project area. Letters were sent on May 17, 2021, to the eight Native American contacts identified by the NAHC. The only response received to date is from the Gabrieleno Band of Mission Indians - Kizh Nation, requesting contact information for the lead agency. If any additional responses are received, they will be forwarded to PWP staff. PWP is undertaking AB 52 notifications to those Tribes who have requested notification and will initiate consultation if requested by those Tribes. Information resulting from these consultations will be used to help assess project impacts and will be incorporated into this report, as appropriate (only non-confidential material will be included). Native American correspondence is included as Appendix C (Confidential Appendices, bound separately).

4.4 OTHER ARCHIVAL RESEARCH

Historic aerials from 1928, 1944, 1956, 1960, 1962, and 1973 were reviewed, as were historic USGS topographic maps, including the 1894 Los Angeles, 1896 Pasadena, and 1900 Pasadena (1:62,500), along with the 1928 Altadena (1:24,000), and 1953, 1966, 1972, and 1988 Pasadena (1:24,000) topographic maps. Also reviewed were seven BLM plat survey maps (two from 1870 and one each from 1871, 1876, 1893, 1900, and 1904), along with several other historic maps of the area.

The early survey plat maps showed the project area within the western boundary of Rancho San Pasqual, and when referencing historic maps of the area, the Sunset Reservoir is visible in multiple maps. This includes Henry Hancock's 1858 "Map of Rancho San Pascual finally confirmed to Manuel Garfias", which shows three structures surrounding the project area, a trail that runs along the north, west, and south edges of the project area, and a ditch or waterway that runs from the reservoir east. A map from 1876, "Map Showing the Property of the Lake Vineyard Land and Water Association", places the reservoir within land owned by the San Gabriel Orange Grove Association, and Hancock's 1880 "Rancho San Pasqual: Pasadena" supports this, with the addition of a north/south road that runs just to the east of the reservoir.

By the 1894 Los Angeles quadrangle map, the reservoir is surrounded by four roads, with a few structures to the east. There is no change in the 1896 and the 1900 Pasadena topographic maps, and by the 1928 Altadena quadrangle map, the reservoir has expanded as a single large reservoir, and the surrounding area has been developed much more, with structures recorded around the area. In the 1953 topographic map, the reservoir receives its first label as Sunset Reservoir, with the entire area coded as a residential neighborhood, which changes in 1966 to the areas directly west of the reservoir being coded as commercial. Additionally, both SR-1 and SR-2 are recorded on the map, and a park is now present south of the reservoir. The 1972 Pasadena map shows the expansion of the I-210 freeway to the east of the project, and by 1988 it is shown as completed, with East Mountain Avenue being re-routed to its current alignment. The aerial photographs show the changes from 1928 onward, with both reservoirs visible in the heavily populated neighborhoods, as well as the construction of the I-210 freeway and Mountain Avenue re-alignment visible in the 1973 aerial.

4.5 SURVEY RESULTS

No archaeological sites have been previously documented within the project area, and the survey did not identify any new cultural resources within the project area. Visibility was excellent for the project area; however, ground surface visibility was almost non-existent due to existing structures and asphalt. Based on the sediments present along the edges and in areas of ornamental vegetation, it is estimated that fill dirt, or disturbed redeposited sediment, is present across the entirety of the project area.

5.0 SUMMARY AND MANAGEMENT RECOMMENDATIONS

A study was undertaken to identify the cultural resources that are present in the Sunset Complex Project area and to determine the effects of the project on historical resources per CEQA and historic properties per the NHPA. The cultural resources survey did not identify any cultural resources within the project area other than built environment resources, which are addressed in a separate HRER (McCausland 2021). Therefore, no impacts to non-built-environment cultural resources are anticipated.

The entire APE has been disturbed by the development of the existing Sunset Reservoir and associated buildings beginning in the nineteenth century and continuing into the twentieth century. The 84 resources recorded within a half-mile of the project area are all historic structures, districts, and contributing elements to the historic districts.

5.1 SENSITIVITY ASSESSMENT

While no archaeological resources were identified in the CHRIS records search within the project site and a 0.5-mile radius, and the Sacred Lands File records search did not identify any sacred lands or TCRs in the project area, review of ethnographic literature and historical maps did identify the documentation of significant Native American villages and sites nearby.

The project site is east of the Arroyo Seco, currently located approximately 0.8 mile to the west of the project area, within the river's historical floodplain. Minor shifts in the main channel of the river have occurred numerous times in recorded history, including two significant shifts in 1862 and 1884. The general proximity of the project site to areas of known habitation, the river, and broad travel corridors has the effect of an overall increase in the sensitivity for unknown archaeological sites and tribal cultural resources, at least higher than low background levels, particularly for the archaeological remains of temporary open camps. Such camps are typically identified by the presence of hearth features, ground stone, and other types of artifact assemblages. However, additional factors related to the preservation of such materials are considered with respect to alluvial depositional settings within the area, as discussed below.

The Tataviam village known as *Hahamon'ga* is the closest ethnographically documented Indigenous community to the project site. *Hahamon'ga* is estimated to be located in the upper part of the Arroyo Seco, in the area now owned by the JPL, approximately 2.65 miles north-northwest of the project site. Archival research has also identified several other nearby ethnographic villages, including *Akuronga,* which is theorized to be approximately 4.65 miles southeast of the project site, near La Presa Drive and Huntington Drive; *Sonaangaha*, which is described as being located at the current location of the San

Marino High School, approximately 4.15 miles southeast; *Alyeupkigna* which is located approximately six miles east-southeast, near Baldwin Lake on the Santa Anita Ranch; and *Sisitkanonga*, which is estimated to be located along the banks of Eaton Creek, approximately 4.8 miles northeast of the project. Like *Hahamon'ga*, these other villages were described in ethnographic accounts, but the exact locations are unknown (McCawley 1996).

The project site is on the south-central portion of the City's original 1849 annexation boundary. Maps and historical accounts characterize the project site and surroundings as open fields, likely used for livestock grazing and agriculture. However, the reservoir is present on historic maps as early as 1858 and has continued to be expanded and updated ever since. The project site was subject to updates and additional construction in 1888, 1899, 1900, and 1934. These construction episodes have compromised the integrity of the physical setting and likely destroyed or displaced any archaeological resources that may have been deposited on the surface or shallowly buried. However, it has been demonstrated elsewhere, both in Pasadena and portions of Los Angeles, that deeply buried archaeological deposits can exist within alluvium below Historic-period disturbances and may also be intermixed with Historic-period debris. Alluvial deposits within the geographic region can be massive, extending well below the surface, and may contain sediments deposited before human occupation of North America. Furthermore, most accumulations of alluvial sediments were formed by a combination of high- and low-energy depositional events. High-energy events are less likely to have preserved any material remains left on the surface by Native Americans, while low-energy floods tend to produce more favorable environments for the preservation of cultural materials. Thus, low-energy alluvial sediments dating to the Late Pleistocene or Holocene time periods have the greatest potential for preserving archaeological resources. There is no absolute measure of depth below the surface in which sediments with these properties occur, and site-specific conditions must be considered. Also, such soil conditions are an indicator of a setting favorable for preservation, but the presence of soils with these properties is not an absolute indicator of the presence of archaeological or tribal cultural resources.

Another important consideration is the amount of past disturbance that has affected the project site. During the field visit on June 3, 2021, discussions with PWP staff indicated that ground disturbances beneath the project site are predicted to be between 60 and 70 feet beneath the ground surface. A pipeline was placed under the site and within the public right of way to provide water from Devils Gate Dam to the project site during the early part of the twentieth century (the dam was constructed in 1920). This pipe was dug up during World War II in order to repurpose the metal for airplane material. Over the decades, the project site has been the subject of a great deal of excavation to update the facilities and the subsurface infrastructure, disrupting the integrity of any subsurface resources that might have been present at one time. Based on this, HELIX finds the sensitivity for unidentified archaeological and tribal cultural resources within the project site to be low.

5.2 MANAGEMENT RECOMMENDATIONS

Based on the results of the current study, no known historic properties per the NHPA or historical resources per CEQA will be affected by the Sunset Complex Project in terms of archaeological or tribal cultural resources; historic built environment resources are addressed separately in the HRER (McCausland 2021). Due to the extensive disturbances to the project site over many decades, the potential for subsurface cultural resources is considered to be low. Therefore, no mitigation measures are required, and construction monitoring is not recommended.

In the event that cultural material is encountered during construction, ground-disturbing activities in the immediate area of the find should be halted until a qualified archaeologist is notified and assesses the resources. If significant cultural material is encountered, the qualified archaeologist will coordinate with the Consulting Tribe(s) and PWP staff to develop and implement appropriate avoidance or mitigation measures.

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

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

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Appendix A

Resumes of Key Personnel

Trevor Gittelhough, RPA

Cultural Resources Assistant Project Manager

HELIX Environmental Planning

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

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.

Mary Robbins-Wade, RPA

Cultural Resources Group Manager

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

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

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

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.

Kassie Sugimoto, M.A.

Cultural Resources Project Manager I

HELIX Environmental Planning

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.

Appendix B

Records Search
(Confidential, bound separately)

Appendix C

Native American Correspondence
(Confidential, bound separately)