# IS/MND Appendix E

## Cultural Resources Technical Report

HELIX Environmental Planning

# East Mission Gorge Force Main Rehabilitation and Regional Brine Line Project

## Cultural Resources Technical Report

November 2021 | 02632.00001.003

*Submitted to:*

**East County AWP Joint Powers Authority and**
**Padre Dam Municipal Water District**
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**National Archaeological Database Information**

| | |
|---|---|
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| Firm: | HELIX Environmental Planning, Inc. |
| Client/Project: | Carollo Engineers, Inc. / East Mission Gorge Force Main Rehabilitation and Regional Brine Line Project |
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| Report Title: | Cultural Resources Technical Report for the East Mission Gorge Force Main Rehabilitation and Regional Brine Line Project, San Diego County, California |
| Submitted to: | East County AWP Joint Powers Authority and Padre Dam Municipal Water District |
| Type of Study: | Cultural Resources Survey |
| New Sites: | None |
| Updated Sites: | P-37-004505, P-37-005688, P-37-006658, P-37-009242, P-37-009243, P-37-010148, P-37-011607, P-37-011608, P-37-011609, P-37-033557 |
| USGS Quad: | La Mesa 7.5' Quadrangle |
| Acreage: | Approximately 9.1 linear miles |
| Key Words: | San Diego County; Township 15 South, Range 1 West; Township 15 South, Range 2 West; Township 16 South, Range 2 West; San Diego; Santee; Mission Gorge; Father Junipero Serra Trail; Mission Trails; P-37-004505 (CA-SDI-4505); P-37-005688 (CA-SDI-5688); P-37-006658 (CA-SDI-6658H); Old Mission Dam and Flume; P-37-009242 (CA-SDI-9242); P-37-009243 (CA-SDI-9243); P-37-010148 (CA-SDI-10,148); P-37-011607 (CA-SDI-11607); P-37-011608 (CA-SDI-11608); P-37-011609 (CA-SDI-11609); P-37-033557; Highway 395 |

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AB | Assembly Bill |
| AMSL | above mean sea level |
| APE | Area of Potential Effects |
| ASMD | Area Specific Management Directive |
| AWP | Advanced Water Purification |
| | |
| CCR | California Code of Regulations |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| CHRIS | California Historical Resources Information System |
| City | City of San Diego |
| CRHR | California Register of Historical Resources |
| | |
| District | Padre Dam Municipal Water District |
| | |
| East County AWP | East County Advanced Water Purification |
| EMGPS | East Mission Gorge Pump Station |
| EMGFM | East Mission Gorge Force Main |
| ERCE | ERC Environmental |
| | |
| HELIX | HELIX Environmental Planning, Inc. |
| HRG | Historical Resources Guidelines |
| | |
| I | Interstate |
| | |
| JPA | Joint Powers Authority |
| | |
| MCAS | Marine Corps Air Station |
| MGTS | Mission Gorge Trunk Sewer |
| MTRP | Mission Trails Regional Park |
| | |
| NADB | National Archaeology Data Base |
| NAHC | Native American Heritage Commission |
| NHPA | National Historic Preservation Act |
| NRHP | National Register of Historic Places |
| NRMP | Natural Resources Management Plan |
| | |
| OHP | Office of Historic Preservation |
| | |
| PD2FM | Padre Dam Basin 2 Force Main |
| PDMWD | Padre Dam Municipal Water District |
| PEIR | Program Environmental Impact Report |
| project | East Mission Gorge Force Main Rehabilitation and Regional Brine Line Project |
| PRC | Public Resources Code |

# ACRONYMS AND ABBREVIATIONS (cont.)

| | |
|---|---|
| RBL | Regional Brine Line |
| SCIC | South Coastal Information Center |
| SLF | Sacred Lands File |
| SMVTS | South Mission Valley Trunk Sewer |
| SR | State Route |
| TCP | Traditional Cultural Properties |
| TCR | Tribal Cultural Resources |
| USGS | U.S. Geological Survey |
| WWFM | Wet Weather Failsafe Force Main |

# EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) was contracted by Carollo Engineers, Inc. to provide cultural resources services for the East Mission Gorge Force Main (EMGFM) Rehabilitation and Regional Brine Line (RBL) Project (project) in San Diego County, California. The approximately 9.1-mile pipeline project is proposed by the East County Advanced Water Purification (East County AWP) Joint Powers Authority (JPA) in collaboration with the City of San Diego (City) and Padre Dam Municipal Water District (District). The proposed project alignment is located within the City of San Diego and the City of Santee and includes three main components: the rehabilitation of the EMGFM, construction of the new RBL; and installation of a new Padre Dam Basin 2 Force Main (PD2FM) piping. An additional alignment option was also analyzed for the initial segment of the triple alignment (Segment 1 Alternative [Northern Alignment] in the event that no other viable or feasible alternatives exist in which wetlands and Environmentally Sensitive Lands (ESL) could be avoided.

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 of Potential Effects (APE). This report details the methods and results of the cultural resources study and has been prepared to comply with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA), as amended.

The records search obtained from the South Coastal Information Center (SCIC) on April 7, 2021, indicated that 177 previous cultural resources studies have been conducted within a half-mile of the APE, 60 of which overlap with the proposed alignment APE and 21 of which overlap with the Segment 1 Alternative. The records search results also indicated that a total of 70 cultural resources have been previously recorded within a half-mile of the APE; ten of which are mapped as located within or adjacent to the proposed project alignment and four of which are located within or adjacent to the Segment 1 Alternative. Eight of the resources within or adjacent to the proposed project alignment (P-37-004505, 005688, 009242, 009243, 010148, 011607, 011608, and 001609) are prehistoric archaeological sites. The remaining two (P-37-006658 and P-37-033557) are historic resources; one is the Mission Dam and Flume, and the other is a segment of Highway 395. The four resources within or adjacent to the Segment 1 Alternative APE include P-37-000205, 008594, 009243, and 010148, all of which are prehistoric archaeological sites. The field investigations of the APE did not result in the identification of any additional newly identified cultural resources within the project APE.

The resources documented within the proposed project alignment APE include eight prehistoric sites (P-37-004505, 005688, 009242, 009243, 010148, 011607, 011608, and 011609), and two historic resources (the Old Mission Dam and Flume [P-37-006658] and the historic Highway 395 [P-37-033557]). Six of the resources have been previously evaluated for significance for inclusion in the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP): P-37-009242 and P-37-011607 have been previously determined to be not eligible for either the NRHP or the CRHR. The portion of P-37-010148 located within the City of San Diego jurisdiction has been determined to be a significant resource and impacts to the site as a result of the development of the EMGPS and EMGFM have been mitigated by a data recovery program (Kyle and Gallegos 1993b). The remainder of the site has been previously determined to be not eligible for either the NRHP or the CRHR. P-37-009243 and Old Mission Dam and Flume (P-37-006658) have been determined to be eligible for listing in the NRHP and CRHR, but the site boundaries for these resources are misplotted at the SCIC and the sites are situated outside of the APE. As such, no impact to these two resources would occur as a result of the proposed project, if constructed within the proposed alignment. Highway 395 (P-37-033557) has been

evaluated as eligible for the NRHP under Criterion A and CRHR under Criterion 1 for association with significant events; however, within the APE, the highway was demolished in the 1960s from the construction of I-15. The remaining four resources have not been evaluated for inclusion in the NRHP or CRHR. Of these resources, P-37-005688, was determined to be situated outside of the APE as a result of this study, and no impact to the site will occur as a result of the proposed project. The remaining three resources, P-37-004505, 011608, and 011609, are located within the APE but outside of the roadway and the existing EMGFM alignment where sliplining will occur. Avoidance of these three resources is recommended to ensure that no impacts will occur as a result of the proposed project.

The resources documented within the Segment 1 Alternative APE include four prehistoric sites: P-37-00205, 008594, 009243, and 010148. Previous investigations have concluded that two of the resources within the Segment 1 Alternative APE (P-37-009243 and the western portion of P-37-010148) are significant resources eligible for inclusion within the NRHP and CRHR; however, data recovery efforts have been previously undertaken to mitigate impacts resulting from the construction of the EMGPS and EMGFM (Carrico et al. 1994; Kyle and Gallegos 1993b). P-37-008594 has been evaluated for significance for inclusion in the NRHP or CRHR and determined to be not eligible for either the NRHP or the CRHR. Extensive testing has occurred within the site boundary of P-37-00205, but no cultural material has been identified.

Due to the cultural sensitivity of the project region and the alluvial setting of much of the APE, it is recommended that an archaeological and Native American monitoring program be implemented for ground disturbance occurring within undeveloped areas, areas containing young alluvium, or near known cultural resources. The monitoring program would include attendance by the archaeologist and Native American monitor at a pre-construction meeting with the construction contractor and the presence of archaeological and Native American monitors during ground-disturbing activities within the areas described above. 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 JPA staff to develop and implement appropriate mitigation measures. If 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 Native American Heritage Commission (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.

# 1.0 INTRODUCTION

HELIX Environmental Planning, Inc. (HELIX) was contracted by Carollo Engineers, Inc. to provide cultural resources services for East Mission Gorge Force Main (EMGFM) Rehabilitation and Regional Brine Line (RBL) Project (project), located within the City of San Diego and City of Santee, San Diego County, California. The project is proposed by the East County Advanced Water Purification (East County AWP) Joint Powers Authority (JPA), in collaboration with the City of San Diego (City) and Padre Dam Municipal Water District (District). 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 of Potential Effects (APE). This report details the methods and results of the cultural resources study and has been prepared to comply with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

## 1.1 PROJECT DESCRIPTION AND LOCATION

The EMGFM Rehabilitation and RBL project is a collaboration between the East County AWP JPA and the City, with each agency having a direct financial contribution to the project. The wastewater conveyance project is located in the cities of Santee and San Diego, in San Diego County. The project would ensure continued and effective service of the wastewater collection system, increase the flexibility and responsiveness of the collection system, and provide a regional solution for disposing of residuals from the East County AWP facilities.

### 1.1.1 Project Location

The project is located in the cities of Santee and San Diego, in San Diego County, within the El Cajon Land Grant in Township 15 South, Range 1 West, and the Mission San Diego Land Grant within Township 15 South, Range 2 West and Township 16 South, Range 2 West, on the U.S. Geological Survey (USGS) 7.5' La Mesa quadrangle (Figures 1 and 2a-b, *Regional Location* and *Project Location on USGS Topography*, respectively). The approximately 9.1-mile pipeline alignment is situated north of Interstate (I-) 8, east of I-15, south of State Route (SR) 52, and west of SR 125 (Figure 3, *Alignment Overview*). The proposed project would also include improvements to the East Mission Gorge Pump Station (EMGFM), located at 8914 Mission Gorge Road near the SR 52 westbound on-ramp, just west of where SR 125 terminates at Mission Gorge Road.

### 1.1.2 Project Background

The East County AWP Project will construct new facilities to treat approximately 15 million gallons per day of wastewater to produce 11.5 million gallons per day of purified water. The East County AWP Project is governed by the JPA, which was formed through a partnership between the San Diego County Sanitation District, the City of El Cajon, and the District. Separate from the East County AWP Project, the existing EMGFM requires rehabilitation due to its current condition. The required rehabilitation of the EMGFM creates an opportunity for additional improvements to better manage certain wastewater flows from the East County AWP facilities through the creation of an RBL. The RBL would be constructed at the same time and in the same location as the EMGFM rehabilitation and along the same alignment and would be placed within the existing 48-inch EMGFM pipe via a sliplining construction method. This is

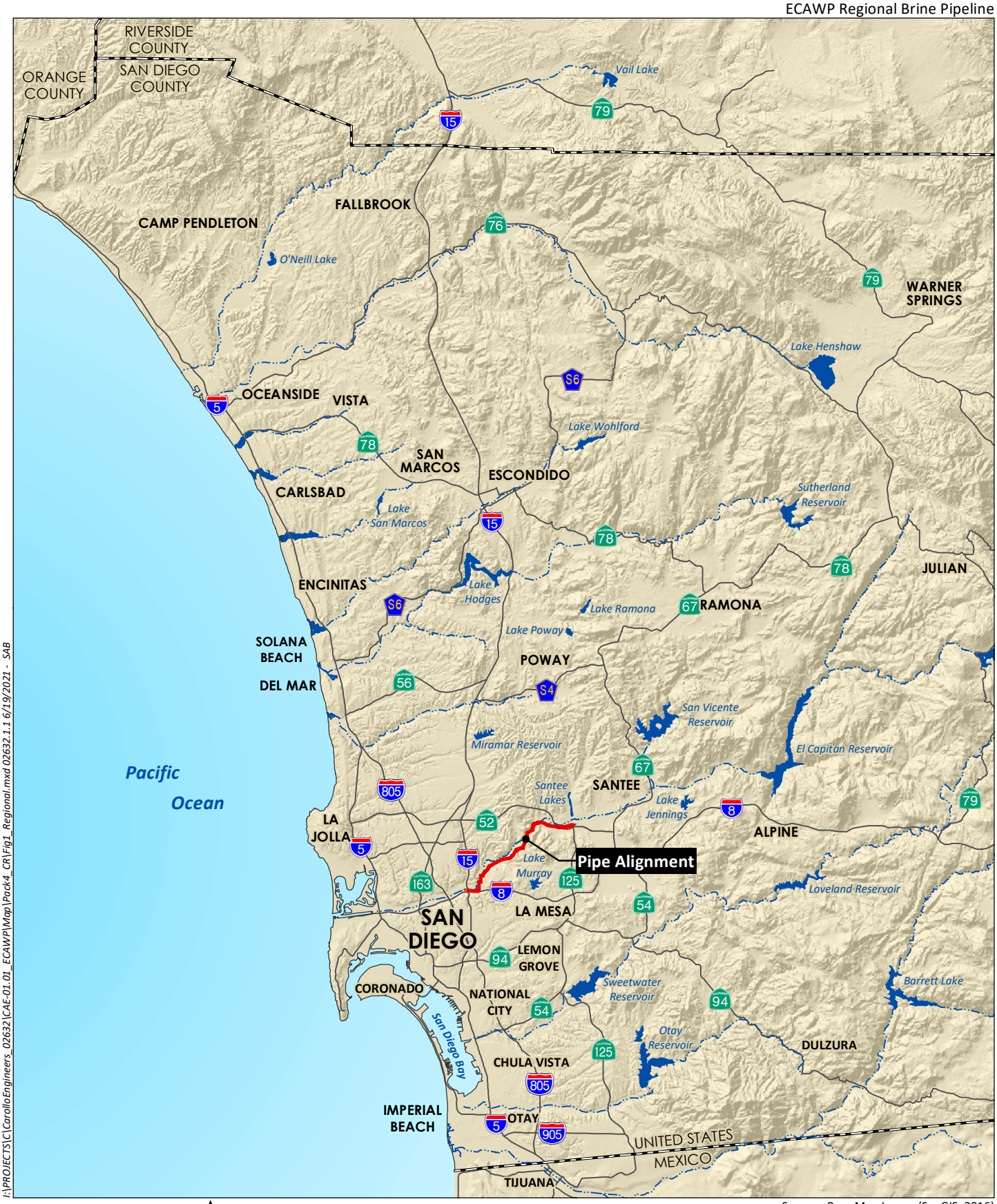
made possible because the rehabilitated EMGFM would be downsized due to the reduced capacity needs.

### 1.1.3 Project Description (Proposed Alignment)

The proposed project is a collaboration between the East County AWP JPA, the City of San Diego, and the District. The project would provide three main components: the rehabilitation of the EMGFM, which will serve as the wet weather failsafe force main (WWFM), the construction of a new RBL, and the installation of a new Padre Dam Basin 2 Force Main (PD2FM) piping. The locations and descriptions for each of these components are shown on Figure 3 and are described in the following sections. The WWFM would accommodate additional flows from the EMGPS that exceed the capacity of the City of San Diego's Mission Gorge Trunk Sewer (MGTS) during wet weather high flow events as well as emergency failsafe flows from the East County AWP facilities or East County when facilities are offline. The RBL would serve as an additional conveyance pipeline for brine, centrate, and highly concentrated flows generated at the East County AWP facilities. Separating the residuals from the existing MGTS would improve the overall quality of the effluent in the system, which would improve the quality of the wastewater used in the City of San Diego's Pure Water San Diego Program. The majority of the new WWFM and RBL would be constructed within the existing 48-inch EMGFM via sliplining operation. The project would also include the installation of the PD2FM that would allow for flow from the Padre Dam sewer basin 2 area to be routed to the EMGPS, and therefore, incorporated in the overall East County AWP Project, rather than connecting downstream of the EMGPS as it does in the current condition.

The WWFM, RBL, and PD2FM would begin at a connection to infrastructure installed and/or upgraded as a part of the East County AWP Project near the EMGPS. From the EMGPS, the three pipelines would be installed within Mission Gorge Road via open trench construction until the intersection with the existing EMGFM near the Meadowbrook community entrance. The PD2FM would terminate at this point. The WWFM and RBL would then continue in a dual alignment within the existing EMGFM along Mission Gorge Road, through Mission Trails Regional Park (MTRP) along Father Junipero Serra Trail, back to and along Mission Gorge Road, and then along Zion Avenue, Riverdale Street, Vandever Avenue, and Fairmont Avenue to the intersection with Twain Avenue. The slipline construction and dual alignment of the WWFM and RBL would end near the Twain Avenue and Fairmount Avenue intersection, where the WWFM would connect into the existing North Mission Valley Interceptor. From the termination point of the WWFM alignment, open trench construction would be used to extend the RBL. The RBL extension would continue south along Fairmount Avenue to the intersection with Mission Gorge Road and would then follow Mission Gorge Road south to the intersection of Mission Gorge Road and Camino Del Rio North, turn west, and continue westerly along Camino Del Rio North toward I-15. The RBL would continue within the Camino Del Rio North undercrossing under I-15 and connect into a new manhole constructed within Camino Del Rio North along the City of San Diego's South Mission Valley Trunk Sewer (SMVTS) just west of I-15. Staging for the project would occur within existing disturbed or developed lands.

Based on preliminary analysis of the elevations of the RBL extension alignment and the existing SMVTS, a sewer lift station may be necessary along the RBL extension alignment and within the study area in order to maintain positive flow to the new utility access hole at the SMVTS. There are nine potential lift station alternatives proposed as part of the preferred alignment project (Figure 3). From the nine potential alternatives, a single lift station site will be selected. For larger site locations, it is assumed that the lift station would occur on a portion of the site but may not require the entire area. The lift station would pump the flows in the RBL from a low point in the alignment to the higher-elevation SMVTS. The

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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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# Regional Location

Figure 1

Preferred Alignment
Northern Alternative
Potential Staging Area

Sheet Locator

0 2,000 Feet

Source: LA MESA 7.5' Quad (USGS)

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# Project Location on USGS Topography

Figure 2A

Preferred Alignment
Potential Staging Area
Potential Lift Station Location

Sheet Locator

A

B

0 2,000 Feet

Source: LA MESA 7.5' Quad (USGS)

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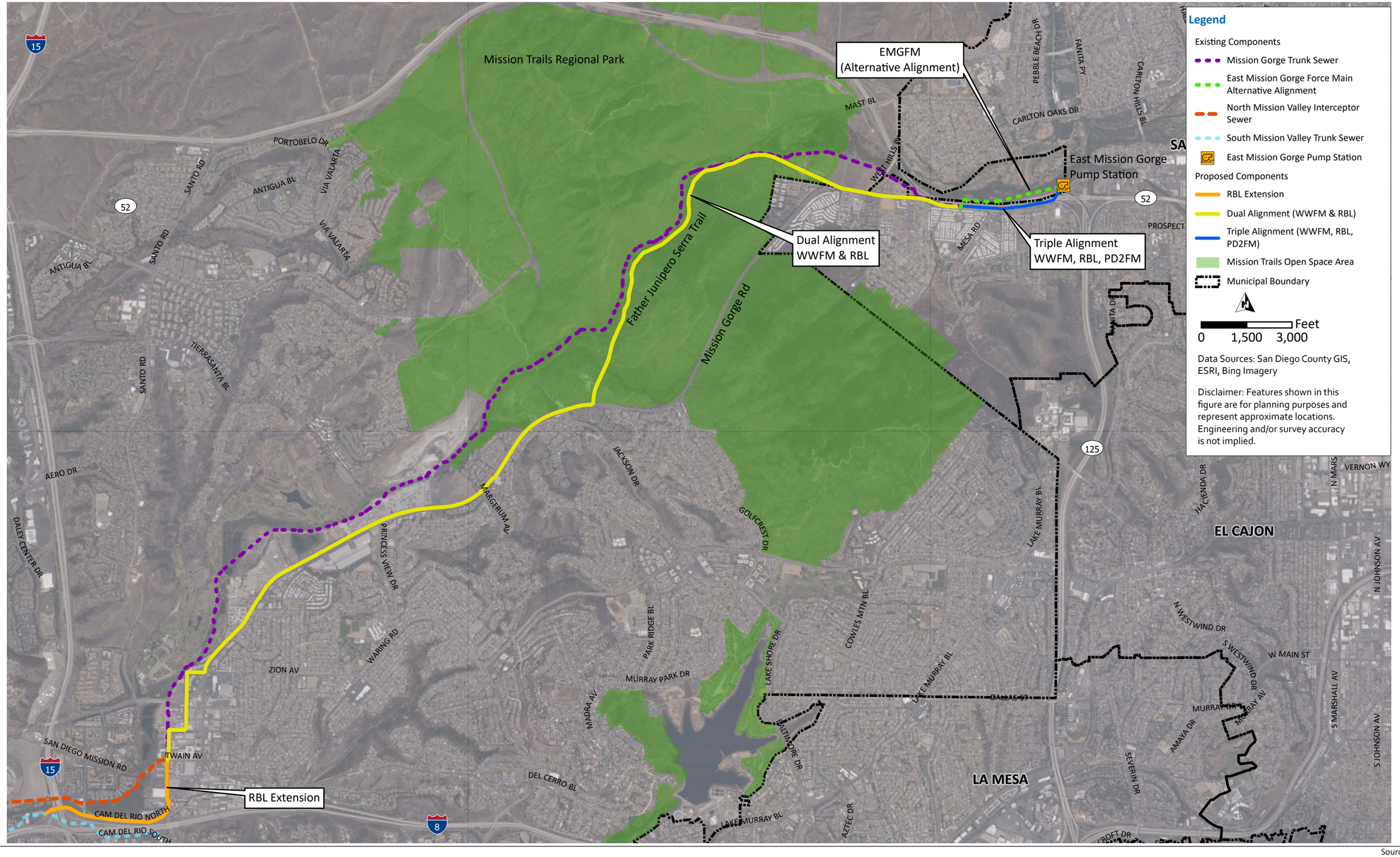
# Project Location on USGS Topography

Figure 2B

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Source: Carollo (2021)

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# Alignment Overview

Figure 3

potential lift station would involve typical lift station components such as submersible pumps, underground structures, small electrical equipment, lighting, and emergency power

#### 1.1.3.1 Segment 1 Alternative (Northern Alignment)

Preliminary desktop investigations indicate possible utility congestion of the Mission Gorge Road corridor. For this reason, an alternative alignment option was analyzed for the initial portion (Segment 1) of the triple alignment between the EMGPS and the Meadowbrook community entrance (Figure 3). Under this alignment option, which diverts from the preferred alignment only at the far eastern end of the project, would only be utilized in the event that no other viable or feasible alternatives exist in which wetlands could be avoided. Under this alignment option, one or more of the new pipelines may be installed along the existing EMGFM alignment along Forester Creek north of SR 52 rather than within the Mission Gorge Road alignment. Work along this corridor would be performed using specialized methods such as sliplining or cured-in-place pipelining in order to minimize excavation and disruption to the maximum extent possible. Either the WWFM or the WWFM and the RBL may be moved along this alignment instead of being installed in Mission Gorge Road. Regardless of the alignment of the WWFM and RBL, the PD2FM will remain within the Mission Gorge Road alignment.

Under this option, the new pipeline(s) would follow the EMGFM until it enters Mission Gorge Road. Once the existing alignment is within Mission Gorge Road, all pipelines will continue along the dual alignment as noted above.

## 1.2 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.

### 1.2.1 Federal

Federal regulations that would be applicable to the project if there is a federal nexus (e.g., permitting or funding from a federal agency such as the State Water Board) 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.

### 1.2.2 State

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 NRHP or in a "local register of historical resources" or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless "the preponderance of evidence demonstrates that it is not historically or culturally significant" (14 CCR Section 15064.5[a][2])

- resources determined by the Lead Agency to meet the criteria for listing on the CRHR (14 CCR Section 15064.5[a][3])

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

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

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

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

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

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

#### 1.2.2.1 Integrity

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

## 1.2.3 Local

### 1.2.3.1 City of San Diego

#### Historical Resources Regulations

The purpose of the City's Historical Resources Regulations (Land Development Code Chapter 14, Division 3, Article 2) is to protect, preserve and, where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties (City of San Diego 2018). These regulations are intended to assure that development occurs in a manner that protects the overall quality of historical resources. It is further the intent of these regulations to protect the educational, cultural, economic, and general welfare of the public, while employing regulations that are consistent with sound historical preservation principles and the rights of private property owners.

The regulations apply to proposed development when the following historical resources are present on the site, whether or not a Neighborhood Development Permit or Site Development Permit is required: designated historical resources; historical buildings; historical districts; historical landscapes; historical objects; historical structures; important archaeological sites; and traditional cultural properties. Where any portion of a premise contains historical resources, the regulations shall apply to the entire premises.

#### Historical Resources Guidelines

The purpose and intent of the City's Historical Resources Guidelines (HRG), located in the City's Land Development Manual (City of San Diego 2001), is to protect, preserve and, where damaged, restore the historical resources of San Diego. The HRG states that if a project will potentially impact a resource, the resource's significance must be determined, even if it is not listed in or previously considered eligible for the California Register or a local register (Section II.D.5).

In order to be designated as historic and potentially listed in the City's Historical Resources Register, one or more of the following criteria must be met:

(A) Exemplifies or reflects special elements of the City's, a community's, or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development.

(B) Is identified with persons or events significant in local, state, or national history.

(C) Embodies distinctive characteristics of a style, type, period, method of construction, or is a valuable example of the use of indigenous materials or craftsmanship.

(D) Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman.

(E) Is listed, or has been determined eligible, by the National Park Service for listing on the NRHP; or is listed, or has been determined eligible, by the California Office of Historic Preservation for listing on the CRHR.

(F) Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements that have a special character, historical interest, or aesthetic value, or which represent one or more architectural periods or styles in the history and development of the City.

Eligible resources, which may include an improvement, building, structure, sign, interior element and fixture, feature, site, place, district, area, or object, are designated to the City's Register of Designated Historical Resources by the City's Historical Resources Board at a publicly noticed hearing.

The City's HRG also states that if a project will potentially impact a resource, the resource's significance must be determined, even if it is not listed in or previously considered eligible for the CRHR or a local register (Section II.D.5). The City has established baseline resource significance criteria based upon CEQA as follows:

> An archaeological site must consist of at least three associated artifacts/ecofacts (within a 50-square meter area) or a single feature and must be at least 45 years of age. Archaeological sites containing only a surface component are generally considered not significant, unless demonstrated otherwise. Such site types may include isolated finds, bedrock milling stations, sparse lithic scatters, and shellfish processing stations. All other archaeological sites are considered potentially significant. The determination of significance is based on a number of factors specific to a particular site including site size, type, and integrity; presence or absence of a subsurface deposit, soil stratigraphy, features, diagnostics, and datable material; artifact and ecofact density; assemblage complexity; cultural affiliation; association with an important person or event; and ethnic importance (City of San Diego 2001:13).

Non-significant resources are addressed in Section II.D.6 as including sites with no subsurface component, such as isolates, lithic scatters, isolated bedrock milling stations, and shellfish processing stations. These are further defined in the City's Significance Determination Thresholds (City of San Diego 2016) as the following:

- Isolates consist of less than three artifacts/ecofacts within a 40-square meter area.
- Sparse Lithic Scatters are identified and evaluated based on criteria from the Office of Historic Preservation (OHP)'s "California Archaeological Resource Identification and Data Acquisition Program (CARIDAP); Sparse Lithic Scatters" (Jackson et al. 1988).
- Isolated Bedrock Milling Stations are defined as having no associated site within a 40-meter radius and lacking a subsurface component.

Shellfish Processing Sites are defined as containing a minimal amount of lithics (i.e., less than five or six) and no subsurface deposit.

### 1.2.4 Native American Heritage Values

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

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

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

#### 1.2.4.1 District Native American Sacred Resources Policy

The District approved a Native American Sacred Resources Policy in August 2014. This is part of the District's commitment to further improve its collaboration, cultural sensitivity, and government-to-government relationship with local Native American tribes. The proposed policy establishes guidelines to be implemented by the District, in connection with planning and construction of District projects that may have potential impacts on any Native American burial site, sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine ("Sacred Resources"). The policy allows the tribes an opportunity to engage in consultation; to provide input that can avoid adverse impacts to Sacred Resources; to create a process for the tribes to make known appropriate and necessary precautions regarding potential impacts of projects on Sacred Resources; and to increase the District's level of understanding, appreciation, and respect for Sacred Resources.

The Policy applies to any activity located on public property which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is an activity directly undertaken or approved by the District or its representatives. This Policy does not apply to any projects (1) that do not include any ground disturbing activity; (2) involving the operation, repair, and/or maintenance of existing District facilities and/or equipment; (3) necessary to remedy any emergency condition that poses an imminent threat to health and safety, or property (though post notification of the activity will be provided to the tribes); (4) involving ground disturbing activities located in a District right-of-way, on District property/facilities described in Attachment 1 of the Policy, or on any other existing District/facilities that are shown to have previously undergone

environmental review prior to the adoption of the Policy; or (5) located on District property that has been determined previously by the tribes or project archaeologist, not to be on or near any Sacred Resources pursuant to the Policy. While the Policy only applies to District projects, the District recognizes that it occasionally accepts facilities constructed by private parties into its water distribution system. In response to any request for service availability for such private projects, the District will provide notice of the Policy to the applicable land use authority responsible for project approval.

## 1.3 AREA OF POTENTIAL EFFECT

Pursuant to 36 CFR 800.16(d), the 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 is established as the potential impact areas for the project components and a buffer of approximately 50 feet beyond the impact areas in all directions. In sum, the APE totals approximately 212 acres along approximately 18,375 linear feet (9.1 miles) of pipeline and other components, including potential staging areas. Although the Segment 1 Alternative (Northern Alignment) route would only be utilized in the event that no other viable or feasible alternatives exist. the APE includes both the proposed alignment and the Segment 1 Alternative routes.

## 1.4 PROJECT PERSONNEL

Stacie Wilson, M.S., RPA served as principal investigator and is the primary author of this technical report. Ms. Wilson meets the qualifications of the Secretary of Interior's Standards and Guidelines for archaeology. Mary Robbins-Wade, M.A, RPA provided senior technical review. James Turner, M.A., RPA conducted the field survey. Mr. Turner and Theodore Cooley, M.A, RPA contributed to the report authorship. Earnest Pingleton (Kumeyaay Native American monitor) from the Viejas Band of Kumeyaay Indians participated in the pedestrian survey. Resumes for key project personnel are presented in Appendix A.

# 2.0 PROJECT SETTING

## 2.1 NATURAL SETTING

The project area is situated within the San Diego River valley; the San Diego River is located along the northwestern side of the project alignment. The elevation of the project alignment ranges from approximately 75 to approximately 380 feet above mean sea level (AMSL). The area surrounding the project alignment is characterized predominantly by urban development, comprised of transportation infrastructure and commercial, residential, industrial development, with a portion of the alignment traveling through MTRP.

The majority of the project corridor is underlain by young alluvial flood-plain deposits from the Holocene and late Pleistocene within the San Diego River channel and old alluvial flood-plain deposits, undivided (late to middle Pleistocene) along the riverbanks (Kennedy and Tan 2008). A small segment of the portion north of Friar's Road is underlain by granodiorite (Cretaceous) and metasedimentary rocks (Jurassic and Cretaceous). Fourteen soil communities are mapped for the project site, with soils from the Diablo, Huerhuero, and Fallbrook series being the most prevalent throughout the central and northern portion of the APE (Natural Resources Conservation Service 2021). The Diablo series consists of a silty clay, while the Huerhuero series consists of a silty clay (Natural Resources Conservation Service 1997,

2017). The Fallbrook series consists of deep, well-drained soils that formed in material weathered from granitic rock (Natural Resources Conservation Service 2003).

Prior to historic and modern activities, major drainages such as the San Diego River contained extensive stands of the riparian community with plants such as sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*), and willow (*Salix* sp). Adjacent foothill areas would have contained the coastal sage scrub and chaparral communities, including plants such as California sagebrush (*Artemisia californica*), white sage (*Salvia apiana*), flat-top buckwheat (*Eriogonum fasiculatum*), laurel sumac (*Malosma laurina*), chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bico*lor), big berry manzanita (*Arctostaphylos glauca*), hairy ceanothus (*Ceanothus oliganthus*), and inland scrub oak (*Quercus berberidifolia*), possibly interspersed areas of native grasslands (*Stipa, Elymus, Poa, Muhlenbergia* (Beauchamp 1986; Munz 1974). Many of the native plant species found in these vegetation communities and those found in the project vicinity are known to have been used by native populations for food, medicine, tools, and ceremonial and other uses (Christenson 1990; Hedges and Beresford 1986; Luomala 1978). Major wildlife species found in this environment prehistorically were coyote (*Canis latrans*); mule deer (*Odocoileus hemionus*); grizzly bear (*Ursus arctos*); mountain lion (*Felis concolor*); rabbit (*Sylvilagus audubonii*); jackrabbit (*Lepus californicus*); and various rodents, the most notable of which are the valley pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), and dusky footed woodrat (*Neotoma fuscipes*) (Head 1972). Rabbits, jackrabbits, and rodents were very important to the prehistoric diet; deer were somewhat less significant for food, but were an important source of leather, bone, and antler, clothing, tools, and shelter (Christenson 1990; Gifford 1940; Kroeber 1925; Luomala 1978).

# 2.2 CULTURAL SETTING

## 2.2.1 Prehistoric Period

The following culture history outlines and describes the known prehistoric background for the San Diego area with references to cultural traditions of potential relevance to prehistoric resources in the project area and vicinity. The approximately 10,000 years of documented prehistory of the San Diego region has often been divided into three periods: Early Prehistoric Period (San Dieguito Tradition/complex), Archaic Period (Milling Stone Horizon, Encinitas Tradition, La Jolla, and Pauma complexes), and Late Prehistoric Period (Cuyamaca and San Luis Rey complexes).

### 2.2.1.1 Early Prehistoric Period

The Early Prehistoric Period represents the time period of the first known inhabitants in California. In some areas of California, it is referred to as the Paleo-Indian period and is associated with the Big-Game-Hunting activities of the peoples of the last Ice Age occurring during the Terminal Pleistocene (pre-10,000 years ago) and the Early Holocene, beginning circa 10,000 years ago (Erlandson 1994, 1997; Erlandson et al. 2007). In the western United States, most evidence for the Paleo-Indian or Big-Game-Hunting peoples, derives from finds of large, fluted spear and projectile points (Fluted-Point Tradition) in places such as Clovis and Folsom in the Great Basin and the Desert southwest (Moratto 1984:79–88). In California, most evidence for the Fluted-Point Tradition derives principally from areas along the margins of the Great Basin and the Desert southwest such as the Sierras, the southern Central Valley, and the deserts of southeastern California (Moratto 1984:79–88) with several, mostly isolated, occurrences of fluted spear points encountered on or near the coast of California (Dillon 2002; Rondeau et al. 2007). Three of these isolated fluted points or point fragments have occurred in San Diego County, all occurring

in the mountainous or eastern areas of the county. One was found in relative proximity to the east of the project area in the Cuyamaca Pass area (Dillon 2002; Rondeau et al. 2007), another approximately 7.5 miles northeast of Warner Springs (Kline and Kline 2007), and the other near Ocotillo Wells in the east county area (Rondeau et al. 2007). Several others have occurred in proximity to the county, including one along the coast in adjacent Orange County to the northwest (Fitzgerald and Rondeau 2012), and two in Baja California to the south (Des Lauriers 2008; Hyland and Gutierrez 1995).

Results from recent archaeological investigations on the northern Channel Islands west of Santa Barbara have revealed that humans that were not Big Game hunters (e.g., no fluted points have been found on the islands, to date) were occupying the islands as early as the terminal Pleistocene, roughly 12,000 years ago (Erlandson et al. 2007:57). These results, instead, document a fully maritime-adapted population on the islands at this early date that were exploiting shellfish, and using seaworthy boats to navigate the channel waters. Fishing has also been documented in the islands as early as 10,000 years ago by the presence of bone-gorge fishhooks (Erlandson et al. 2007:57). Such early dates, however, for a similar cultural pattern are still lacking for the adjacent southern California mainland. This absence on the mainland may be due to the rise in sea level brought about by post-Pleistocene deglaciation that possibly inundated sites located along this lower elevation, late Pleistocene/early Holocene coastline. At this time in San Diego County, the shoreline stood 2 to 6 kilometers (km) farther seaward than today's coast (Masters and Aiello 2007).

Despite the occurrence of isolated fluted points in the San Diego area and vicinity, the earliest archaeological sites documented to be 10,000 years old belong to the San Dieguito Tradition (Warren et al. 2008; Warren and Ore 2011). The San Dieguito Tradition, with an artifact assemblage distinct from that of the Fluted Point Tradition, has been documented mostly in the coastal and near coastal areas in San Diego County (Carrico et al. 1993; Rogers 1966; True and Bouey 1990; Warren 1966; Warren and True 1961), as well as in the southeastern California deserts (Rogers 1939, 1966; Warren 1967), but with some evidence for it recently proposed at a site to the east in the mountains of San Diego County (Pigniolo 2005), and at a site in the coastal area to the north in Los Angeles County (Sutton and Grenda 2012). The content of the earliest component of the C.W. Harris Site (CA-SDI-149), located along the San Dieguito River and approximately 15 miles to the northwest of the project area, formed the basis upon which Warren and others (Rogers 1929, 1938, 1966; Warren 1966, 1967; Warren and True 1961) identified the "San Dieguito complex," and which Warren later reclassified as the San Dieguito Tradition (1968). This tradition is characterized by an artifact inventory consisting almost entirely of flaked stone biface and scraping tools, but lacking the fluted points associated with the Fluted Point Tradition. Diagnostic artifact types and categories associated with the San Dieguito Tradition include elongated bifacial knives; scraping tools; crescentics leaf-shaped projectile points; and in the desert, Silver Lake and Lake Mojave projectile points (Knell and Becker 2017; Rogers 1939; Warren 1966, 1967; Vaughan 1982).

The subsistence system or emphasis of the San Dieguito Tradition, while not as yet entirely agreed upon, is suggested by Warren (1967) as having an orientation toward a hunting rather than a gathering economy. This characterization is based on an artifact assemblage of primarily hunting associated tools, in contrast to the more gathering-oriented complexes that were to follow in the Archaic Period (Warren 1967, 1968, 1987; Warren et al. 2008). Other researchers have interpreted the San Dieguito subsistence system to be possibly ancestral to, or a developmental stage for, the predominantly gathering-oriented "La Jolla/Pauma complex" of the subsequent Archaic Period (e.g., Bull 1983; Ezell 1987; Gallegos 1985, 1987, 1991; Koerper et al. 1991). Based on uncalibrated radiocarbon dates, Warren originally indicated the San Dieguito Tradition to have begun sometime prior to 9,000 years before present (B.P.) and to have ended sometime between 8500 and 7500 B.P. (1967; 1968:4). Recent calibrations of these dates,

however, have indicated that some are significantly earlier, i.e., exceeding 10,000 B.P. (Warren et al. 2008; Warren and Ore 2011.

#### 2.2.1.2 Archaic Period

In the southern coastal region, the subsequent Archaic Period dates from circa 8,600 B.P. to circa 1,300 B.P. (Warren et al. 2008). A large number of archaeological site assemblages dating to this period have been identified at a range of coastal and near coastal inland sites (Masters and Gallegos 1997:12-13). This appears to indicate that a relatively stable, sedentary hunting and gathering complex, possibly associated with one people, was present in the coastal and immediately inland areas of what is now San Diego County for more than 7,000 years. These assemblages, designated as the La Jolla/Pauma complexes, are considered part of Warren's (1968) "Encinitas Tradition" and Wallace's (1955) "Milling Stone Horizon." In general, the content of these site assemblages includes manos and metates; shell middens; terrestrial and marine mammal remains; burials; rock features; bone tools; doughnut stones; discoidals; stone balls; plummets; biface points/knives; beads made of stone, bone, or shell; and cobble-based tools at coastal sites and increased hunting equipment and quarry-based tools at inland sites. As defined by True (1958), the "Pauma complex" aspect of this culture is associated with sites located in inland areas that lack shellfish remains but are otherwise similar in content to the La Jolla complex. The Pauma complex may, therefore, simply represent a non-coastal expression of the La Jolla complex (True 1980; True and Beemer 1982). During the latter half of the Archaic Period, artifacts such as dart points and mortars and pestles, which are essentially absent during the Early Archaic Period, begin to occur in site assemblages dating after circa 5,500 B.P. Also, noted by Warren (2012), was an increase in the presence of larger mammal remains in La Jolla complex, faunal assemblages during the latter part of the Archaic Period. This new, and subsequently increasing, use of these resources represents a significant shift in the Encinitas/La Jolla/Pauma complex subsistence system in the southern coastal region (Warren et al. 2008; Warren 2012).

Sites dating to the Archaic Period are more numerous along the coast. Inland archaeological sites in the San Diego County area, attributable to the Early Milling Stone Horizon, Encinitas Tradition, and/or the La Jolla/Pauma complex are not unknown (e.g., Chace and Sutton 1990; Cooley and Barrie 2004; Raven-Jennings and Smith 1999; Gross and Robbins-Wade 1992; 2010; True 1980; Warren et al. 1961:10). However, similar to the San Dieguito complex, most of the substantiating archaeological evidence for the Encinitas Tradition/La Jolla/Pauma complex (Milling Stone Horizon) in present-day San Diego County is derived from sites in near-coastal valleys, estuaries, and/or embayments that are present along the San Diego coast south of the San Luis Rey River (e.g., Cooley et al. 2000; Cooley and Mitchell 1996; Gallegos and Kyle 1998; Pigniolo et al. 1991; Shumway et al. 1961; Smith and Moriarty 1985). The location of the project area, approximately 10 to 15 miles from the coast, places it within the rising elevation, near coastal, inland foothill area where sites that can be radiometrically dated to the Archaic Period, and that contain La Jolla or Pauma complex assemblages, are less common (Gross and Robbins-Wade 2010:26; McDonald 1995:14; Warren et al. 2008).

While not plentiful, sites in inland foothill circumstances with evidence for exclusively Archaic Period occupation are rare. Instead, many inland sites with evidence for Archaic Period occupation also have evidence for subsequent Late prehistoric occupation as well. One such site located within the project area along the Diego River in Mission Gorge area, approximately 14 miles from the ocean, CA-SDI-9243, has produced radiocarbon dates of circa 5400 and 5700 B.P. and Elko-eared style projectile points (Cooley 1995). The artifact assemblage and the radiocarbon results from the site also appear to indicate that it was repeatedly occupied over a period of nearly 6,000 years, with the last occupation occurring

during the Late Prehistoric Period (Carrico et al. 1994; McDonald et al. 1994). Sites in the foothills along Santa Maria Creek, near Ramona, have produced an Elko-eared style projectile point and a radiocarbon date of circa 2,000 B.P., documenting an occupation during the Late Archaic Period, but with subsequent occupation occurring during the Late Prehistoric Period (Cooley and Barrie 2004). Along the San Diego River to the east of the project area, In the upper foothills, near Alpine, radiocarbon dates of 2550 B.P. and 2900 B.P., from two of the sites, also suggested a Late Archaic Period occupation of these sites with subsequent occupation occurring during the Late Prehistoric Period (Gross and Robbins-Wade 2010). Similar to the long and repeated occupation at site CA-SDI-9243, the Scripps Poway Parkway Site (CA-SDI-4608), located along the Beeler Canyon drainage, and situated approximately 15.3 miles from the ocean, has been radiocarbon dated to as early as 5800 B.P., and is described as associated with the "transitional periods between the San Dieguito and La Jolla complexes and the later Archaic/Late Prehistoric transition" (Raven-Jennings and Smith 1999:3.0-5). La Jolla complex artifacts recovered from the site included doughnut stones; discoidals; and Pinto, Elko, and large side-notched points. Also, in the Poway area, archaeological investigations along Poway/Penasquitos Creek, have produced both radiocarbon dates and projectile points (Elko, Gypsum Cave, large side-notched, and Pinto points) that indicate there was an Archaic occupation with subsequent occupation occurring during the Late Prehistoric Period (Gross and Robbins-Wade 1992).

As noted above, it has been previously observed in San Diego County, that during the Late Prehistoric Period, sites attributable to the San Luis Rey or Cuyamaca complexes occur in greater frequency in inland areas of the county. McDonald (1995:14), for example, has stated that "most sites in the Laguna Mountains can be expected to date from late prehistoric or ethnohistoric occupation of the region, and Archaic Period remains, while not unknown, are relatively rare," and Gallegos (1995:200) states that "for San Diego County, there is temporal patterning, as the earliest sites are situated in coastal valleys and around coastal lagoons. Late Prehistoric Period sites are also found in coastal settings but are more common along river valleys and interior locations." It is also possible, now, to observe, however, that while a number of examples of Late Prehistoric Period sites, that appear to be attributable exclusively to the San Luis Rey or Cuyamaca complexes have been identified for the near-coastal inland foothill areas of the county through diagnostic artifacts and/or radiocarbon dating, (e.g., Chace and Hightower 1979:48; McCown 1945), a number of sites containing evidence for both Late Prehistoric Period and Archaic Period occupations have also been documented (Carrico et al. 1994; Cooley and Barrie 2004; Gross and Robbins-Wade 1992; 2010; McDonald et al. 1994; Raven-Jennings and Smith 1999; Willey and Dolan 2004). It appears possible, therefore, that, as more archaeological data accumulates, this geographic dichotomy of site locations between the Archaic and Late prehistoric periods within the county, may be found to not be completely valid.

#### 2.2.1.3 Late Prehistoric Period

While there has been considerable debate about whether San Dieguito and La Jolla patterns might represent the same people using different environments and subsistence techniques, or whether they are separate cultural patterns (e.g., Bull 1983; Ezell 1987; Gallegos 1987; Warren et al. 2008), abrupt shifts in subsistence practices and the use of new tool technologies are documented in the archaeological record to have occurred at the onset of the Late Prehistoric Period (ca. 1500 to 1300 B.P.). The Late Prehistoric Period (ca. 1500 B.P. to A.D. 1769) is also characterized by higher population densities and intensification of social, political, and technological systems. The technological changes observed include a shift from the use of atlatl and dart to the bow and arrow; subsistence shifts that include a reduction in shellfish gathering in some areas (possibly due to silting of the coastal lagoons);

and the storage of crops, such as acorns. New traits such as the production of pottery and cremation of the dead, were also introduced during the Late Prehistoric Period.

Movements of people during the last 2,000 years can account for at least some of these changes. Yuman-speaking people had occupied the Gila/Colorado River drainages of what is now western Arizona by 2,000 years ago (Moriarty 1968) and then continued to migrate westward. An analysis by Moriarty (1966, 1967) of materials recovered from the Spindrift site in La Jolla indicated a preceramic Yuman phase. Based on this analysis and a limited number of radiocarbon samples, Moriarty concluded that Yuman speakers, lacking ceramic technology, penetrated into and occupied what is now the San Diego coastline circa 2,000 B.P. Subsequently, approximately 1,200 to 1300 B.P., ceramic technology diffused into the coastal area from the eastern deserts. Although these Yuman speakers may have shared cultural traits with the people occupying what is now eastern San Diego County before 2,000 B.P., their influence is better documented throughout present-day San Diego County after 1300 B.P. with the introduction of small points, ceramics, Obsidian Butte obsidian, and the practice of cremation of the dead.

Based on early research by Meighan (1954) and True (1970), two distinct archaeological complexes have been proposed for the Late Prehistoric Period in what is now San Diego County. The Cuyamaca complex is based on analysis by True of archaeological excavations within Cuyamaca Rancho State Park and of San Diego Museum of Man collections. Based on the results of this analysis, True (1970) defined a Late Prehistoric Period complex for southern San Diego County that was distinct from Meighan's (1954) San Luis Rey complex in the northern county area. The presence or absence, or differences in the relative occurrence, of certain diagnostic artifacts in site assemblages, provide the principal distinctions between these archaeological complexes. Cuyamaca complex sites, for example, generally contain both Cottonwood Triangular-style points and Desert Side-notched arrow points, while Desert Side-notched points are quite rare or absent in San Luis Rey complex sites (Pigniolo 2004). Other examples include Obsidian Butte obsidian, which is far more common in Cuyamaca complex sites than in San Luis Rey complex sites, and ceramics, while ceramics are present during the Late Prehistoric Period throughout what is now San Diego County, they are more common in the southern or Cuyamaca complex portions of San Diego County where they occur earlier in time and appear to be somewhat more specialized in form. Both complexes have produced a variety of ceramic vessel types, along with straight and bow-shaped ceramic pipes and effigies. Interment of the dead at Cuyamaca complex sites is almost exclusively by cremation, often in special burial urns for interment, while archaeological evidence from San Luis Rey complex sites indicates both inhumation and cremation. Based on ethnographic data, including the areas defined for the Hokan-based Yuman-speaking peoples (Diegueño/Kumeyaay) and the Takic-speaking peoples (Luiseño) at the time of contact, it is generally accepted that the Cuyamaca complex is associated with the Diegueño/Kumeyaay people and the San Luis Rey complex with the Luiseño people (True 1970; True and Waugh 1982).

The project area lies within the area currently defined for the Cuyamaca complex (True 1970:58). A Cuyamaca complex artifact assemblage commonly contains Tizon Brown Ware pottery, various cobble-based tools (e.g., scrapers, choppers, and hammerstones), arrow shaft straighteners, pendants, manos and metates, and mortars and pestles. The arrow point assemblage often includes Desert Side-notched and Cottonwood Triangular points with the Dos Cabezas Serrated type also sometimes occurring (McDonald and Eighmey 2008).

Compared to Archaic Period sites, Late Prehistoric Period sites attributable to the San Luis Rey or Cuyamaca complexes are less common in the near-coastal areas of the county. Gallegos (1995:200)

states that "for San Diego County, there is temporal patterning, as the earliest sites are situated in coastal valleys and around coastal lagoons. Late Prehistoric Period sites are also found in coastal settings but are more common along river valleys and interior locations." In contrast, numerous Late Prehistoric Period sites, attributable to the San Luis Rey or Cuyamaca complexes have been identified for the near-coastal inland foothill areas of the county through diagnostic artifacts and/or radiocarbon dating (e.g., Berryman 1981; Campbell et al. 2017; Chace and Hightower 1979:48; McCown 1945), including some sites containing evidence for both Late Prehistoric Period and Archaic Period occupations (Carrico et al. 1994; Cooley and Barrie 2004; Gross and Robbins-Wade 2010; McDonald et al. 1994; Raven-Jennings and Smith 1999; Willey and Dolan 2004).

### 2.2.2 Ethnohistory

The project area is located within the traditional territory of the Kumeyaay, also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcalá). At the time of Spanish contact, Yuman-speaking Kumeyaay bands occupied southern San Diego and southwestern Imperial counties, and northern Baja California. The Kumeyaay are a group of exogamous, patrilineal territorial bands that lived in semi-sedentary, politically autonomous villages or rancherias. Most rancherias were the seat of a clan, although it is thought that, aboriginally, some clans had more than one rancheria, and some rancherias contained more than one clan (Luomala 1978). Several sources indicate that large Kumeyaay villages or rancherias were located in river valleys and along the shoreline of coastal estuaries (Luomala 1978; Kroeber 1925). They subsisted on a hunting and foraging economy, exploiting San Diego's diverse ecology throughout the year; coastal bands exploited marine resources, while inland bands might move from the desert, ripe with agave and small game, to the acorn and pine-nut-rich mountains in the fall (Cline 1984; Kroeber 1925; Luomala 1978).

At the time of Spanish colonization in the late 1700s, several major Kumeyaay villages were located in proximity to the study area. The village of *Nipaquay* was located near the southwestern end of the project area, along the north side of the San Diego River at the second and final location of the San Diego Mission de Alcalá (Brodie 2013; Carrico 2008a). The village of *Micheagua* was located along the San Diego River just east of Mission Gorge near the northeastern end of the project area (Richard Carrico, personal communication 2021). Other nearby villages include the village of *Cosoy*, located approximately six miles to the southwest of the project area along the San Diego River near the location of the San Diego Presidio and the first location of the Mission de Alcalá. The village of *Jamo* (Rinconada) was located approximately seven miles to the west of the study area, where the Rose Canyon drainage enters into Mission Bay (Carrico 1977, 2008a; Winterrowd and Cardenas 1987). These latter two village locations (*Cosoy* and *Jamo*) were documented as inhabited at the inception of Spanish colonization when they were visited by the Spanish during the initial Portolá expedition in 1769 (Carrico 1977).

Some native speakers referred to river valleys as *oon-ya*, meaning trail or road, describing one of the main routes linking the interior of San Diego with the coast; the floodplain from the San Diego Mission de Alcalá to the ocean was *hajir* or *qajir* (Harrington 1925). Inland travel in prehistoric times along major drainages, such as the San Diego River and its tributaries, may reflect coastal Kumeyaay bands accessing inland resources such as outcrops of metavolcanic and quartz toolstone, and/or vegetal resources such as seeds from grassland and sage scrub habitats adjacent to the river and acorns from riparian and oak woodland habitats along the river as well as the bedrock the outcrops needed to process these vegetal foodstuffs (Zepeda-Herman and Price 2016:19). It is also likely that the Kumeyaay people used the San Diego River valley and some of its larger tributaries as travel corridors from interior coastal plain areas to and from villages located along, and at the mouth of, the San Diego River such as *Nipaguay,*

*Micheagua. Cosoy*, and *Jamo*, as well as other villages along the coast to the north of the river and the study area, such as *Ystagua* and *Onap* (Carrico 2008a; Trafzer and Carrico 1992:53).

## 2.2.3 Historical Background

### 2.2.3.1 Spanish Period

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769. In the mid-eighteenth century, Spain had escalated its involvement in California from exploration to colonization, and in that year, a Spanish expedition headed by Gaspar de Portolá and Junípero Serra established the Royal Presidio of San Diego. Portolá then traveled north from San Diego seeking suitable locations to establish military presidios and religious missions in order to extend the Spanish Empire into Alta California.

Initially, both a mission and a military presidio were located on Presidio Hill overlooking the San Diego River and the Kumeyaay village of *Cosoy* (Alter 2021a). A small pueblo, now known as Old Town San Diego, developed below the presidio. Five years later, Father Junipero Serra moved the Mission six miles upriver, near the Kumeyaay village of Nipaguay. The missions and presidios stood, literally and figuratively, as symbols of Spanish colonialism, importing new systems of labor, demographics, settlement, and economies to the area. Cattle ranching, animal husbandry, and agriculture were the main pursuits of the missions. Much of the inland San Diego area was used by the mission as grazing lands.

The Mission needed a dependable water source after droughts in 1801 and 1803—one was found six miles to the east of the Mission, in what is now MTRP (Alter 2021a; Zepeda-Herman and Price 2016). Using labor from the local Kumeyaay Indians, construction of the dam began in 1809 and was completed by 1815. Following the secularization of the missions in 1833, the dam and flume were not maintained; flume times were taken to be used for homes of pioneers; and floods, particularly the flood of 1916, washed away most of the flume (Alter 2021a).

### 2.2.3.2 Mexican Period

Although Mexico gained its independence from Spain in 1821, Spanish patterns of culture and influence remained for a time. The missions continued to operate as they had in the past, and laws governing the distribution of land were also retained in the 1820s. Following the secularization of the missions in 1834, large ranchos were granted to prominent and well-connected individuals, ushering in the Rancho Era, with the society making a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With the numerous new ranchos in private hands, cattle ranching expanded and prevailed over agricultural activities.

These ranches put new pressures on California's native populations, as grants were made for inland areas still occupied by the Kumeyaay, forcing them to acculturate or relocate farther into the backcountry. In rare instances, former mission neophytes were able to organize pueblos and attempt to live within the new confines of Mexican governance and culture. The most successful of these was the Pueblo of San Pasqual, located inland along the San Dieguito River Valley, founded by Kumeyaay who were no longer able to live at the Mission San Diego de Alcalá (Carrico 2008b; Farris 1994).

The project alignment is located within both the Mission San Diego and El Cajon Ranchos. The Mission San Diego Rancho was granted to Santiago Arguello in 1846—the 58,875-acre swath of land derived its

name from the Mission San Diego de Alcala (Ogden 1862). In 1845, the El Cajon Rancho was granted to Dona Maria Antonia Estudillo de Pedrorena by Governor Pio Pico at the insistence of Don Miguel Telesforo de Pedrorena (Head 1952; Lay 1989; Ogden 1862). The rancho totaled roughly 48,800 acres and encompassed present-day El Cajon, Bostonia, Santee, Lakeside, Flinn Springs, and the eastern part of La Mesa. The Pedrorenas used the area extensively for cattle grazing; the croplands and vineyards tended during the Spanish Period fell into neglect (Head 1952).

#### 2.2.3.3 American Period

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

While the American system required that the newly acquired land be surveyed prior to settlement, the Treaty of Guadalupe Hidalgo bound the United States to honor the land claims of Mexican citizens who were granted ownership of ranchos by the Mexican government. The Land Act of 1851 established a board of commissioners to review land grant claims, and land patents for the land grants were issued throughout the following years. The confirmation of ranchos' boundaries in the late 1860s and early 1870s drew additional settlers as land became officially conveyable. Under the Homestead Act of 1862, settlers could claim up to 160 acres of public land for the cost of a filing fee of $10, on condition that the land was occupied for at least five years and that certain improvements were made. The increase of land claims significantly reduced the remaining lands which sustained the Native American populations as settlers marked, surveyed, and fenced property, which in turn changed the landscape of what is now San Diego County. The increase of land claims pushed for Native American reservations to be established in what were lands of poor subsistence, making indigenous people increasingly reliant on the Euro-American economic system as an alternative to the reservations (Carrico 2008b).

A claim for Rancho El Cajon was filed in 1852 by Thomas Sutherland, the guardian of Pedrorena's heirs. This claim was confirmed by the United States Supreme Court in 1856, and the grant was patented in 1876 (United States v. Sutherland 1856; Willey 1886). A claim for the Rancho Mission San Diego was filed in 1852 and was patented in 1876 to Santiago Arguiello (Willy 1866).

In San Diego County, the 1880s were characterized by "boom and bust" cycles that brought thousands of people to the area. By the end of the decade, many had left, although some remained to form the foundations of small communities based on dry farming, orchards, dairies, and livestock ranching. During the late nineteenth and early twentieth centuries, rural areas of San Diego County developed small agricultural communities, consisting of individuals and families tied together through geographical boundaries, a common schoolhouse, and a church.

The small town of Stowe was established in the 1880s in Sycamore Canyon, north of the project alignment (Fryman 2012). Stowe flourished as a small ranching and farming community. The local post office was established in 1889, and a one-room schoolhouse was established at the junction of Beeler and Sycamore Canyons in 1890 (Jacques and Quillen 1983). Unfortunately, the town of Stowe was

short-lived, with the post office being terminated in 1905, and the schoolhouse closing in 1906 (Jordan et al. 2008).

In 1877, George A. Cowles purchased approximately 4,000 acres of land for a vineyard in what would later be known as the Santee area. Originally known as Cowleston, Santee gained its name in 1891 when Cowles's widow Jennie married Milton Santee, a local realtor and surveyor (City of Santee 2018). The area maintained its primarily agricultural focus through the late 1800s, with dairies and barns being a common feature of the landscape. The Edgemoor Farm, established in 1908, was later purchased by the County of San Diego to be used as a geriatric hospital (Santee Historical Society 2020). As time went on, the County added new buildings to the property while still maintaining the original barn, though, in the 1950s the dairy and farm had fallen into disuse.

By the 1950s and 1960s, most of San Diego County experienced an increase in residential, commercial, and infrastructure development. The Rio San Diego Municipal Water District was established in 1955 to import water from the San Diego County Water Authority. In 1956, the Santee County Water District was formed due to the County Water District Laws of the State of California (Padre Dam Municipal Water District 2016). Due to the increased population, the Santee County Water Authority realized that it needed a place to dump partially treated wastewater; in 1959, district manager Ray Stoyer visited Sycamore Canyon and discovered a series of excavated mining beds (Stevens 1971). These mining beds, owned by Mill Mast, would later be donated to the Water District in exchange for water rights to a portion of the treated water. The Santee Lakes would open for fishing and boating in 1961 and for swimming in 1965 (Padre Dam Municipal Water District 2016; Stevens 1971). The Padre Dam Municipal Water District was created when the Rio San Diego Water District and the Santee County Water District merged in 1976 (Padre Dam Municipal Water District 2016).

#### 2.2.3.4 Mission Trails Regional Park

Starting in 1873, granite mines appeared throughout Mission Gorge and what is now MTRP. The granite extracted from these mines was used to construct roads, buildings, dams, and jetties throughout the region—the San Diego and Cuyamaca Eastern Railroad enabled the granite to be shipped from the mines throughout the country (Alter 2021b). Several mining firms, such as the Kenneth Golden Company, J.B. Stringfellow, H.G. Fenton, and the V.R. Dennis Company, extracted sand and gravel from areas within the MTRP. Kumeyaay Lake and nearby ponds were created in the late 1940s as the byproduct of these mining operations and the removal of rock materials. Additionally, the Morse Construction Company operated a dynamite magazine on the park premises in the 1960s (Alter 2021b).

From 1917 through the 1960s, The Camp Elliot Training Area encompassed over 30,500 acres of the Fortuna area of the MTRP. Most of this land was used for live-fire artillery and tank exercises by the U.S. Army from 1917 to 1919, and by the U.S. Marine Corps from 1941 to 1944; after Camp Elliot closed in 1960, the Navy and Marine Corps cleared unexploded ordinance from portions of the former camp. After an unexploded ordinance round exploded in 1983, the Navy began periodic searches for ordinance throughout the park (Alter 2021b).

In 1960, the City of San Diego Planning Department proposed the Fortuna Mountain-Mission Gorge Metropolitan Park. The plan encompassed portions of Camp Elliot and parts of Mission Gorge, Old Mission Dam, and the Fortuna Mountain Ridge (Zepeda-Herman and Price 2016). In 1974 the County acquired Cowles Mountain, and the MTRP Master Development Plan was prepared in 1976 and revised in 1985. The plan envisioned a park that served the recreational, educational, and cultural needs of

San Diego (Zepeda-Herman and Price 2016). By the mid to late 1980s, signs were erected throughout the park, the Old Mission Dam was cleaned up and a bridge was constructed nearby, and staging areas were completed (Alter 2021c). Since the approval of the 1985 revised Master Development Plan, two expansion areas have been included within the park. The East Elliot Expansion Area is located immediately north of SR 52 and east and south of Marine Corps Air Station (MCAS) Miramar, while the West Sycamore Expansion Area is located immediately north of MCAS Miramar and west of Goodan Ranch Sycamore Canyon Preserve. In 1989, the first park ranger was hired, and by 1995, the Park's visitor center opened.

In 2019, a Final Program Environmental Impact Report (PEIR), the Mission Trails Regional Park Master Plan Update, and a Natural Resources Management Plan (NRMP) were prepared and certified. The plans addressed the potential increase of the park to approximately 9,780 acres with the acquisition and potential acquisition of additional property within East Elliot and the inclusion of property within West Sycamore, as well as updated recommendations to the existing 1985 Master Plan and set forth adaptive management actions to ensure long-tern, viable populations of native species and habitats within the park (City of San Diego 2019a, 2019b). Additionally, the PIER sought to analyze the broad environmental effects that are reasonably foreseeable if the plans were to be implemented, and the NRMP establishes specific Area Specific Management Directives (ASMD) that limit activities that occur within MTRP. In general, activities occurring within the MTRP must conform to these ASMD.

# 3.0 STUDY METHODS

HELIX staff obtained a record search of the California Historical Resources Information System (CHRIS) from the South Coastal Information Center (SCIC) on April 7, 2021, and June 16, 2021. The records search covered a half-mile radius around the project APE and included the identification of previously recorded cultural resources and locations and citations for previous cultural resources studies. A review of the California Historical Resources and the state OHP historic properties directories and Local Register was also conducted. The records search summary and map are included as Appendix B (Confidential Appendices, bound separately). Historic maps and aerial photographs were reviewed to assess the potential for historic archaeological resources to be present.

The Native American Heritage Commission (NAHC) was contacted on May 28, 2021, for a Sacred Lands File search and list of Native American contacts, which were received on June 21, 2021. Letters were sent on July 6, 2021, to the contacts listed by the NAHC. Native American correspondence is included as Confidential Appendix C to this report.

A pedestrian survey of the project site was conducted by HELIX Staff Archaeologist James Turner and Senior Archaeologist Stacie Wilson on May 11, 2021. An additional survey of the project alignment located along Father Junipero Serra Trail and the northern section of Mission Gorge Road was conducted on May 14, 2021, by Mr. Turner and Ernest Pingleton from the Viejas Band of Kumeyaay Indians. Mr. Turner surveyed potential staging areas and the portion of the alignment located on Camino Del Rio North on May 19, 2021. Additional field visits were conducted on August 27, 2021, and October 29, 2021, to investigate the Segment 1 Alternative APE and potential lift station alternatives, respectively.

# 4.0 STUDY RESULTS

## 4.1 RECORDS SEARCH

### 4.1.1 Proposed Alignment

#### 4.1.1.1 Previous Surveys

The records search results identified 177 previous cultural resource studies within the record search limits, 60 of which overlap with the project APE (Table 1, *Previous Studies Within or Adjacent to the Project APE*). Of those that overlap with the project alignment, 22 are cultural resource surveys, eight were monitoring reports, eight were environmental documents, seven were testing or data recovery reports, and five were cultural resource studies; the remaining studies include six investigations, assessment, and evaluations, and four cultural resource inventories. Ten of the studies identified or discussed resources within the search radius.

**Table 1**
**PREVIOUS STUDIES WITHIN OR ADJACENT TO THE PROJECT APE**

| Report No. (SD-) | Report Title | Author, Date |
|---|---|---|
| 00041 | Negative Archaeological Survey Report: Proposed Westbound Auxiliary Lane on Route 8 | Donovan and Laylander, 1985 |
| 00516 | A Report of Cultural Impact Survey Phase 1 | Cupples, 1974 |
| 00517 | Mast Boulevard Archaeological Survey and Mitigation Report | Cupples and Tolles, 1974 |
| 00546 | An Archaeological Survey of the San Diego River Valley | Cupples, 1975 |
| 00571 | An Archaeological Survey Report for a Portion of Proposed Interstate 15 and Route 52/I-15 Interchange | Corum, 1977 |
| 00779 | Archaeological Test Excavation at Sites CA-SDI-5655, 5658, 9239, 9240, 9246, 9247, 9913 in Shepherd Canyon, San Diego, California | Corum and Crotteau, 1985 |
| 00803 | Negative Archaeological Survey Report: Proposed Additional Project Limits for Westbound Auxiliary Lane on Interstate 8 | Kelsay, 1987 |
| 00816 | First Addendum Archaeological Survey Report for Route 15/8 Interchange | Goldberg, 1980 |
| 00866 | An Archaeological Survey of the Upper San Diego River Mosquito Abatement and Water Pollution Control Project Phase I | Fink, 1973 |
| 00994 | A Cultural Resource Study of the Murray, Cowles, and Fortuna Mountain Regional Park | Hanna, 1978 |
| 01904 | An Archaeological Survey of the Santee Village Shopping Center Project | Smith, 1990 |
| 02191 | Draft Environmental Impact Report Mission Dam Views: A Residential Project Santee Community Planning Area County of San Diego | Multi Systems Associates, Inc., 1980 |
| 02454 | Cultural Resources Survey of the Mission Trails East Park Entrance Property | Alter, 1991 |
| 02583* | Cultural Resource Monitoring Sewer for East Mission Gorge Interceptor Sewer System Force Main Construction Project | Kyle and Gallegos, 1993 |
| 02625 | A Cultural Resource Survey of The Terra Santa Norte Waterline, San Diego, California | Bull, 1991 |

| Report No. (SD-) | Report Title | Author, Date |
|---|---|---|
| 02628 | Historic Properties Inventory Report for the Mission Valley Water Reclamation Project, San Diego California | Carrico, Clevenger, Cooper, and Gallegos, 1990 |
| 02632* | A Cultural Resources Testing, Evaluation, and Proposed Data Recovery Program for the East Mission Gorge Pump Station and Force Main Project | Carrico et al., 1991 |
| 02633 | Cultural Resources Testing, Evaluation, and Proposed Data Recovery Program for the East Mission Gorge Pump Station and Force Main Project | Carrico et al., 1991 |
| 02749 | Draft, Archaeological Evaluation of Prehistoric Sites CA-SDI-11606 and CA-SDI-11057 Loci A And D, Kumeyaay Lake Campground, San Diego, California | Gallegos and Kyle, 1993 |
| 02761 | Data Recovery Program for a Prehistoric Site CA-SDI-110148, East Mission Gorge Pump Station and Force Main, San Diego, California | Kyle et al., 1993 |
| 02905 | Phase III Data Recovery of CA-SDI-9243 A Multicomponent Prehistoric Site in the San Diego River Valley Santee, California | McDonald, Serr, and Saunders, 1994 |
| 02916 | Cultural Resources Assessment of AT&T's Proposed San Bernardino to San Diego Fiber Optic Cable, San Bernardino, Riverside and San Diego Counties, California | Peak & Associates, Inc., 1990 |
| 02929 | Results of a Cultural Resource Evaluation Study for the Padre Dam Municipal Water District Phase I Reclaimed Water System Project | Smith, 1993 |
| 03110 | Draft Historic Properties Inventory for the East Mission Gorge Trunk Sewer Rehabilitation Project, City of San Diego | Kyle and Gallegos, 1995 |
| 03162 | National Archaeology Data Base (NADB) Information Sheet East Mission Gorge Interceptor Pump Station and Force Main Project Cultural Resource Data Recovery Report For CA-SDI-9,243 | Carrico, Cooley, and Glenn, 1994 |
| 03228* | Final and Draft Mitigation Monitoring and Reporting Program for the East Mission Gorge Trunk Sewer Rehabilitation Project San Diego, California | Monserrate, 1995 |
| 03331* | Cultural Resources Survey for Ordinance Clearance at Former Camp Elliot, Mission Trails Regional Park, San Diego, California | Dames & Moore, 1991 |
| 03342 | Archaeological Evaluation of Prehistoric Sites CA-SDI-11606, CA-SDI-11057a and CA-SDI-11057b, Kumeyaay Lake Campground, San Diego, California | Kyle and Gallegos, 1994 |
| 03758 | Cultural Resource Monitoring Report for the Magazine Road North Repair Project on Miramar Marine Corps Air Station San Diego County, California | Dietler and Pigniolo, 2000 |
| 04181* | Clean Water Program for Greater San Diego Santee Basin Water Reclamation Project Draft Environmental Report | City of San Diego, 1990 |
| 04184* | A Cultural Resources Survey of the Proposed East Elliott Community Planning Area | Hector, 1988 |
| 04307 | Appendix A to the Historic Properties Inventory for the Proposed Deerfield Water Pump Plant Results of the Archaeological Records Search | ERCE, 1978 |
| 04327 | Historic Properties Inventory for the Proposed Deerfield Water Pump Plant Discharge Pipeline Corridor, San Diego, California | Carrico, 1993 |
| 04769* | Final Environmental Impact Report for the East Mission Gorge Trunk Sewer Rehabilitation Project, San Diego, California | City of San Diego, 1995 |

| Report No. (SD-) | Report Title | Author, Date |
|---|---|---|
| 04934* | Extended Phase I and Phase II Archaeological Test Excavations at Sites CA-SDI-205, 5053, 8594, 9242, 10148, Santee, California | Corum and White, 1986 |
| 05043* | First Addendum Archaeological Survey Report for Proposed State Route 52 Santo Road to State Route 67 | Corum, 1985 |
| 05675 | Negative Area Survey Report District II County of San Diego | Kelsay, 1987 |
| 05770 | Historic Property Survey for Route 8/15 Interchange | Goldberg, 1981 |
| 06221 | A Phase I Cultural Resources Investigation of the Vesta Telecommunications Inc Fiber Optic Alignment, River County to San Diego County California | McKenna, 2000 |
| 06499 | A Report of Cultural Impact Survey Phase I | Ezell, 1974 |
| 06526 | Negative Archaeological Survey Report Fairmount Ave.- Westbound Auxiliary Lane | Donovan, 1985 |
| 06707 | Historical/Archaeological Survey Report for Task No. 8 - El Capitan Pipeline Trestle #12 | Kyle and Gallegos, 1997 |
| 07431 | Archaeological Survey & Subsurface Test of the Proposed Home Depot Project 5920 Fairmount Avenue City of San Diego, California | Cook, 1996 |
| 07735 | Cultural Resources Survey of the Hollins Lake Campground, City of San Diego | Tift, 1990 |
| 08019 | An Archaeological Report for the Mitigation, Monitoring and Reporting Program at the Sewer Group 708 Project | Pierson, 2002 |
| 09214 | Archaeological Monitoring for the East Mission Gorge Trunk Sewer Rehabilitation Project, San Diego, California | Robbins-Wade, 1998 |
| 10416* | Cultural Resources Study for the Maintenance of Old Mission Dam, Mission Trails Regional Park, San Diego, California | Hector, 2006 |
| 10536 | Report to the Historical Board for the City of San Diego Water Utilities Department Alvarado Filtration Plant Upgrade and Expansion | Glenn, 1993 |
| 11826 | Archaeological Resources Analysis for the Master Stormwater System Maintenance Program, San Diego, California Project. | Robbins-Wade, 2008 |
| 12200 | Draft Environmental Impact Report for the Master Storm Water System Maintenance Program (MSWSMP) | City of San Diego, 2009 |
| 13006 | Master Storm Water System Maintenance Program – Draft Recirculated Program Environmental Impact Report | City of San Diego, 2011 |
| 13918 | San Diego River Park Master Plan Project Draft Program Environmental Impact Report | IFC International, 2012 |
| 14809 | Cultural Resource Monitoring Report for the Grantville Trunk Sewer Project, City of San Diego | Kraft and Smith, 2014 |
| 15784 | Archaeological Resource Report Form: Mitigation Monitoring of the Old Mission Dam Dredging Project | Pierson, 2007 |
| 15910 | Draft Programmatic Environmental Impact Report for the Grantville Focused Plan Amendment | Tomlinson and Armstrong, 2014 |
| 15911 | Historic Resources Reconnaissance Survey for Grantville Focused Plan Amendment, Grantville, San Diego, San Diego County, California | Davis and Stringer, 2014 |
| 15912 | Cultural Resources Technical Report for the Grantville Focus Plan Amendment, San Diego, California | Gunderman-Castells, 2013 |
| 18369 | eTS #38734: Cultural Resources Monitoring Report for the City of San Diego, 10510 Father Junipero Serra Trail, Solar Generation Project, San Diego County, California | Tennesen, 2019 |
| 18370 | eTS #38734: Cultural Resources Monitoring Report for the City of San Diego, 10510 Father Junipero Serra Trail, Solar Generation Project, San Diego County, California | Tennesen, 2019 |

| Report No. (SD-) | Report Title | Author, Date |
|---|---|---|
| 18634 | Letter Report: eTS 43551 – Cultural Resources Monitoring Report for the CP492/CP144 Marrokal Lane, Santee Project, San Diego County, California | Ports, 2020 |

*Studies identifying or discussing resources within project alignment.

#### 4.1.1.2 Previously Recorded Resources

The SCIC has a record of 70 previously recorded cultural resources within a half-mile radius of the project alignment, ten of which are located within or adjacent to the project alignment (Table 2, *Previously Recorded Resources Within a Half Mile of the Project APE*). Of the 70 resources, 42 are prehistoric and consist of habitation and village sites, bedrock milling features, artifact scatters, a pictograph panel and artifact scatter, and isolated artifacts. Two multi-component sites are recorded within the search radius—these include a village site with bedrock milling features and historic artifacts; and the Kumeyaay village of Nipaguay and the Spanish Mission San Diego de Alcala. Twenty-four historic resources, consisting of 14 addresses, seven sites, two structures, and segments of Highway 395 were within the search radius. The historic sites include structural remains, trash scatters and deposits, a cistern, a mine shaft, the remains of the Fanita Rancho, the Mission Dam, and the San Diego Mission Flume. Additionally, two resources with no site record on file at SCIC, were located within the search radius; so, the original site descriptions are unknown. Additionally, site update forms contained within a report appendix but not on file at the SCIC were obtained during an in-house search of records and reports relating to the area. The resources that have been documented within or adjacent to the project alignment include P-37-004505, 005688, 006658, 009242, 009243, 010148, 011607, 011608, 011609, and 033557; and are described in further detail in Section 4.5.

**Table 2**
**PREVIOUSLY RECORDED RESOURCES WITHIN A HALF-MILE OF THE PROJECT APE**

| Resource Number (P-37-) | Trinomial (CA-SDI-) | Age and Resources Present | Description | Recorder, Date |
|---|---|---|---|---|
| 000035 | 35 | Multi-Component Site | The site of the Kumeyaay village of Nipaguay and the historic Spanish Mission San Diego de Alcalá. | Pilling, 1949; Hedges, 1976; Schaefer, 1990; Wolf, 2013; Schaefer, 2013 |
| 000202 | 202 | Unknown | No information given. | Treganza, n.d. |
| 000203 | 203 | Multi-Component Site | A village site with bedrock milling and artifact scatters. Historic artifacts were also observed. | Treganza, n.d., Hanna, 1978; Gross, Robbins-Wade, Busdosh, Rissolo, Shultz, Waters, Webb, and Zanelli, 1993 |
| 000204 | 204 | Prehistoric Site | Bedrock milling site with associated artifact scatters. | Treganza, n.d., Williams, 2009 |
| 000205 | 205 | Prehistoric Site | Bedrock milling site. | Treganza, n.d.; Kyle, 1992; Williams, 2009 |
| 000206 | 206 | Unknown | No information given. | Treganza, n.d. |
| 000239 | 239 | Prehistoric Site | Artifact scatter. | Hall, 1951 |
| 004505* | 4505 | Prehistoric Site | A post-1769 pictograph panel and sparse lithic scatter. | Hedges and Hamann, 1995 |

| Resource Number (P-37-) | Trinomial (CA-SDI-) | Age and Resources Present | Description | Recorder, Date |
|---|---|---|---|---|
| 004511 | 4511 | Prehistoric Site | Artifact scatter with lithic and ground stone artifacts. | Hanna, 1998 |
| 005050 | 5050 | Prehistoric Site | Milling features, ceramic and lithic artifacts, and a midden deposit. | Pettus, 1979 |
| 005053 | 5053 | Prehistoric Site | Possible habitation site with over 27 bedrock milling features, rock shelters, and subsurface artifacts. | Pettus, 1976; Corum, 1986 |
| 005687 | 5687 | Prehistoric Site | A large rock outcropping with four basins. | Hanna, 1978 |
| 005688* | 5688 | Prehistoric Site | A water-worn rock containing 15 shallow slicks. | Hanna, 1978 |
| 005689 | 5689 | Prehistoric Site | Three bedrock milling features with several slicks. | Hanna, 1978 |
| 006658* | 6658H | Historic Site | The Mission Dam, built in the early 1800s. | Ferguson and Hanna, 1978; Hanna, 1978 |
| 006660 | 6660H | Historic Site | The San Diego Mission Flume, built in the early 1800s. | Hanna and Ferguson, 1978; Hanna, 1978; Clevenger and Briggs, 1990; McGinnis, 2004; Price, Zepeda-Herman, and Collett, 2008 |
| 006836 | 6836 | Prehistoric Site | A mano and quartzite flake located in midden-like soil. | Christenson and Harris, 1979 |
| 008349 | 8349 | Prehistoric Site | Quarry area with numerous flakes, debitage and cores. | Franklin, 1980 |
| 008594 | 8594 | Prehistoric Site | Two areas of bedrock milling features with a midden deposit. | Christenson and Christenson, 1981; Corum, 1986; Kyle, 1992; Williams and Piek, 2009 |
| 009242* | 9242 | Prehistoric Site | A light lithic scatter consisting of three flakes and a core. | Noah, 1982; Corum, 1986; Kyle, 1992 |
| 009243* | 9243 | Prehistoric Site | A village site with bedrock milling and associated artifacts. | Noah, 1982; Corum and Crotteau, 1984; Corum, 1986; Cooley and Mitchell, 1992; Williams, 2009 |
| 010148* | 10148 | Prehistoric Site | A campsite with cobble tools and production waste, milling tools, and pottery. | Thesken, 1984; Corum, 1986; Williams, 2009; Williams and Piek, 2009 |
| 011057 | 11057 | Prehistoric Site | A limited or temporary prehistoric occupation area with bedrock milling. | Corum, 1988; Pigniolo and Briggs, 1990; Kyle, McHenry, and Tift, 1993 |
| 011077 | 11077 | Prehistoric Site | Bedrock milling site. | Cook 1989; Clevenger and Briggs, 1990 |
| 011459 | 11459 | Prehistoric Site | A sparse lithic and ground stone scatter. | Serr, 1989 |

| Resource Number (P-37-) | Trinomial (CA-SDI-) | Age and Resources Present | Description | Recorder, Date |
|---|---|---|---|---|
| 011542 | 11542H | Historic Site | The remains of several mid-20th century structures and trash dumps. | Knight, Leeper, and Robbins-Wade, 1989; Garrison, 2018 |
| 011606 | 11606 | Prehistoric Site | Bedrock milling features and associated ceramic scatter. | Pigniolo and Briggs, 1990; Kyle, McHenry, and Tift, 1993 |
| 011607* | 11607 | Prehistoric Site | A limited or temporary occupation area with flaked and ground stone artifacts. | Pigniolo and Briggs, 1990 |
| 011608* | 11608 | Prehistoric Site | An occupation area with flaked and ground stone artifacts. | Pigniolo and Briggs, 1990 |
| 011609* | 11609 | Prehistoric Site | Bedrock milling with flaked and ground stone artifacts. | Pigniolo and Briggs, 1990 |
| 011610 | 11610 | Prehistoric Site | A bedrock milling station with a single slick. | Pigniolo and Briggs, 1990 |
| 011611 | 11611 | Prehistoric Site | A prehistoric quarry site with debris and flakes. | Pigniolo and Briggs, 1990 |
| 011612 | 11612 | Prehistoric Site | A lithic scatter with ground stone artifacts. | Pigniolo and Briggs, 1990; McGinnis, 2004 |
| 011613 | 11613 | Prehistoric Site | A lithic scatter with debitage and a flaked lithic tool. | Pigniolo and Briggs, 1990 |
| 011720 | 11720 | Historic Site | A trash scatter with glass and ceramic fragments. | Clevenger and Briggs, 1990 |
| 011723 | 11723 | Prehistoric Site | A possible habitation site. Artifacts include manos, mano fragments, flakes, and flaked tools. | Clevenger and Briggs, 1990 |
| 011758 | 11758 | Prehistoric Site | A ceramic scatter with more than 20 sherds. | Clevenger and Briggs, 1990 |
| 011759 | 11759 | Prehistoric Site | A lithic quarry and possible temporary camp. | Clevenger and Briggs, 1990 |
| 011761 | 11761H | Historic Site | A possible cistern with round steel-reinforced concrete walls. | Clevenger and Briggs, 1990 |
| 012016 | 12016 | Prehistoric Site | A light lithic scatter with approximately 12 flakes. | Rhodes, Norwood, Lilburn, and Wahoff, 1990 |
| 012088 | 12088 | Prehistoric Site | A habitation or temporary campsite with ceramic sherds and debitage. | Pigniolo and Briggs, 1991; Kyle, Kyle, and Tift, 1995 |
| 012089 | 12089 | Prehistoric Site | A low-density lithic testing and procurement area. | Pigniolo and Briggs, 1991 |
| 014062 | 14015 | Prehistoric Site | A light shell scatter within disturbed soils, likely a redeposit of dredged spoils. | Kyle, Collins, and Baker, 1995; Robbins-Wade, Alter, and Shultz, 1997 |
| 014063 | 14016 | Prehistoric Site | A dense shell scatter with a cluster of burned cobbles and charcoal flecks. | Kyle, Kyle, and Tift, 1995 |

| Resource Number (P-37-) | Trinomial (CA-SDI-) | Age and Resources Present | Description | Recorder, Date |
|---|---|---|---|---|
| 014259 | 14079H | Historic Site | A mineshaft excavated vertically into solid bedrock. No modern or historic artifacts or trash are associated with the shaft. | Case, 1995 |
| 014905 | --- | Prehistoric Isolate | Two isolated flakes, one of which has a bifacially retouched edge. | Corum and Rosen, 1988 |
| 015081 | --- | Prehistoric Isolate | An isolated mano with possible battering on both sides. | Maier and Joyner, 1991 |
| 015082 | --- | Prehistoric Isolate | An isolated mano with unilateral grinding on one surface and erosion on another. | Maier and Joyner, 1991 |
| 015654 | --- | Prehistoric Isolate | An isolated flake; isolate was collected. | Kyle and Tift, 1996 |
| 015947 | --- | Prehistoric Isolate | Isolated broken bifacial mano that shows evidence of battering. | Shultz, 1997 |
| 018411 | --- | Historic Address | The Historic Bond-Neutra House. | Bishop and Girard, 1999 |
| 018660 | --- | Historic Address | A two-story, wood frame single family Spanish Eclectic Style home built in 1928 with additions in 1956 and 1957. | Pierson, 2000 |
| 019016 | 13708 | Prehistoric Site | A habitation site with a milling component. Artifacts include debitage, manos, flakes, cores, and tools. | Tift and Strudwick, 1994 |
| 020910 | --- | Historic Structure | The Old Mission Dam and Flume, built in the early 1800s. | Unknown, n.d. |
| 027911 | --- | Historic Address | The Van Deman Hall, a United States Army Reserve Center built in 1969. | PAR Environmental Services, Inc, 2006 |
| 030866 | 19604 | Prehistoric Site | Bedrock milling site with two outcrops with six surfaces. | Williams and Piek, 2009 |
| 033557* | --- | Historic Road | Section of Highway 395. | Tift, 2013; Manchen and DeCarlo, 2015; Chasteene, 2017; Foglia, Keckeisen, 2017; Stringer-Bowsher, 2018 |
| 035171 | --- | Historic Structure | The San Diego Stadium, formerly Qualcomm Stadium, built in 1967. | Crawford, 2013; Loftus, 2015; Heritage Architecture & Planning, 2015 |
| 035200 | --- | Historic Address | A single-story Spanish Eclectic style built in 1929. | Woehler, 2013 |
| 035210 | --- | Historic Address | A modern Ranch house designed by John Mortenson and completed in 1961. | IS Architecture, 2012 |

| Resource Number (P-37-) | Trinomial (CA-SDI-) | Age and Resources Present | Description | Recorder, Date |
|---|---|---|---|---|
| 035213 | --- | Historic Address | A two-story Spanish Eclectic style building with a two-car detached garage. The building was completed in 1929. | Crawford and Burke Lia, 2013 |
| 035460 | --- | Historic Address | A two-story Spanish Eclectic style building completed in 1929. | May, May, and Wallace, 2012 |
| 035461 | --- | Historic Address | A two-story Spanish Eclectic style building completed in 1927. | May and May, 2010; May, 2010 |
| 035526 | --- | Historic Address | A one- and two-story Modern stye commercial building built in the 1960s. | Crawford, 2013 |
| 035618 | --- | Historic Address | A one- and two-story Spanish Eclectic style residence built in 1928. | Moomjian, 2015 |
| 036977 | --- | Historic Address | A two-story Monterey/Spanish Colonial Revival house built in 1929. | IS Architecture, 2017 |
| 036989 | --- | Historic Address | A two-story Spanish Revival/Eclectic style house built in 1929. | May and Wallace, 2016 |
| 037025 | --- | Historic Address | A single-story Ranch style house built in 1948. | Lamar and Welch, 2016 |
| 037119 | --- | Historic Address | A two-story Spanish Eclectic style house built in 1928. | May, 2015 |
| 037346 | --- | Historic Address | A two-story Monterey/Spanish Colonial Revival style house built in 1929. | Hazard and O'Dea, 2017 |
| 037656 | --- | Historic Structure | The Manager's Office for the Naval Recreation Center, Admiral Baker Field. Structure was built between 1919 and 1950. | Carrico, 1991 |
| 037786 | 22504 | Historic Site | The remains of the Fanita Rancho, purchased in 1885 by Hosmer McKoon. Elements include a stone dam, an asphalt-paved road, a refuse scatter, a quarry, a swing gate, posthole, a post, a metal wheel, and a metal appliance. | Rincon Consultants, Inc., 2018 |

* Within or adjacent to project alignment.

### 4.1.2 Segment 1 Alternative (Northern Alignment)

In addition to those overlapping the proposed alignment, 21 cultural resource studies overlap the alignment alternative north of SR 52 (Table 3, *Previously Recorded Resources Within a Half-Mile of the Segment 1 Alternative*). These include nine cultural resource surveys and inventories, eight testing and

data recovery programs, three monitoring reports, and an environmental impact report for the East Mission Gorge Trunk Sewer Rehabilitation Project. Four cultural resources are located within the Segment 1 Alternative APE—these include two resources that contain bedrock milling features (P-37-000205 and P-37-008594), a village/occupation site (P-37-009243), and a habitation site (P-37-010148).

**Table 3**
**PREVIOUSLY RECORDED RESOURCES WITHIN A HALF-MILE OF THE SEGMENT 1 ALTERNATIVE**

| Report No. (SD-) | Report Title | Author, Date |
|---|---|---|
| 00771 | Extended Phase I and Phase II Archaeological Investigations at Sites CA-SDi-205, 5053, 9242, and 10,148, Santee, California | Corum, 1986 |
| 00778 | Extended Phase I and Phase II Archaeological Investigations at Sites CA-SDi-9243, Santee, California | Corum and White, 1986 |
| 00780 | First Addendum Archaeological Survey Report for Proposed State Route 52 Santo Road to State Route 67 (Portion) | Corum, 1985 |
| 00866 | An Archaeological Survey of the Upper San Diego River Mosquito Abatement and Water Pollution Control Project Phase I | Fink, 1973 |
| 01829 | Third Addendum Archaeological Survey for Proposed State Route 52 | Corum, 1989 |
| 02583 | Cultural Resource Monitoring Sewer for East Mission Gorge Interceptor Sewer System Force Main Construction Project | Kyle and Gallegos, 1993 |
| 02632 | A Cultural Resources Testing, Evaluation, and Proposed Data Recovery Program for the East Mission Gorge Pump Station and Force Main Project | Carrico et al., 1991 |
| 02633 | Cultural Resources Testing, Evaluation, and Proposed Data Recovery Program for the East Mission Gorge Pump Station and Force Main Project | Carrico et al., 1991 |
| 02761 | Data Recovery Program for a Prehistoric Site CA-SDI-10148, East Mission Gorge Pump Station and Force Main, San Diego, California | Kyle et al., 1993 |
| 02905 | Phase III Data Recovery of CA-SDI-9243 A Multicomponent Prehistoric Site in the San Diego River Valley Santee, California | McDonald, Serr, and Saunders, 1994 |
| 03110 | Draft Historic Properties Inventory for the East Mission Gorge Trunk Sewer Rehabilitation Project, City of San Diego | Kyle and Gallegos, 1995 |
| 03162 | National Archaeology Data Base (NADB) Information Sheet East Mission Gorge Interceptor Pump Station and Force Main Project Cultural Resource Data Recovery Report For CA-SDI-9,243 | Carrico, Cooley, and Glenn, 1994 |
| 03228 | Final and Draft Mitigation Monitoring and Reporting Program for the East Mission Gorge Trunk Sewer Rehabilitation Project San Diego, California | Monserrate, 1995 |
| 04184 | A Cultural Resources Survey of the Proposed East Elliott Community Planning Area | Hector, 1988 |
| 04692 | First Supplemental Historic Property Survey | Corum, 1986 |
| 04769 | Final Environmental Impact Report for the East Mission Gorge Trunk Sewer Rehabilitation Project, San Diego, California | City of San Diego, 1995 |
| 04934 | Extended Phase I and Phase II Archaeological Test Excavations at Sites CA-SDI-205, 5053, 8594, 9242, 10148, Santee, California | Corum, 1986 |
| 05043 | First Addendum Archaeological Survey Report for Proposed State Route 52 Santo Road to State Route 67 | Corum, 1985 |
| 05675 | Negative Area Survey Report District II County of San Diego | Kelsay, 1987 |

| Report No. (SD-) | Report Title | Author, Date |
|---|---|---|
| 09214 | Archaeological Monitoring for the East Mission Gorge Trunk Sewer Rehabilitation Project, San Diego, California | Robbins-Wade, 1998 |
| 12455 | Cultural Resources Survey for the San Diego River Watershed Invasive Non-Native Plant Control and Habitat Restoration Program at the Carlton Oaks Golf Course, Santee, California | Gardner and Williams, 2009 |

## 4.2 OTHER ARCHIVAL RESEARCH

Various additional archival sources were also consulted, including historic topographic maps and aerial imagery. These include historic aerials from 1953, 1964, 1966, 1978, and 1980 (NETR Online 2021), and several historic USGS topographic maps, including the 1903 and 1930 La Jolla (1:62,500) topographic maps, the 1958 San Diego (1:250,000) topographic map, and the 1947, 1953, 1967, 1975, and 1994 La Mesa (1:24,000) topographic maps. The purpose of this research was to identify historic structures and land use in the area.

The 1903 and 1930 La Jolla topographic maps show the San Diego River to the northwest of the project alignment, and the community of Grantville at the southern end of the proposed alignment; however, the northern portion of the roadway that connects to modern-day Mission Gorge Road contains a sharp southern turn. The 1942 and 1947 La Mesa (1:24,000) maps show Mission Gorge Road adjacent to the San Diego River—the northern end of the road follows the current alignment of Father Junipero Serra Trail. Camp Elliot and the Camp Elliot Naval Reservation are seen on the 1953 map, with the boundary for the Naval Reservation encompassing much of the area to the northwest of the alignment. This map also shows the expansion of San Diego south of I-8.

The development of the region expands to the north side of I-8 on the 1967 map—this map also shows several new roads, including Mission Gorge Road, Navajo Road, and College Avenue extending north of I-8. The map also contains the recordation of the Mission Dam and Flume Historic Site. The U.S. Naval Recreation Facilities is recorded near the southern portion of the alignment, north of the Friars Road extension. The subsequent 1975 and 1994 La Mesa topographic maps show the expansion and development of the region; the 1978 and 1980 aerials show this expansion. The 1994 map also shows the reduction in the size of the Naval Reservation and the creation of SR 52.

The 1953 aerial photograph shows several buildings on either side of the northern portion of Mission Gorge Road. The aerial also shows Junipero Serra Trail as a paved two-lane road adjacent to the San Diego River; the sharp southern turn is still extant in this aerial photograph; however, the road appears to fall out of use by the mid-1990s (NETR Online 2021). I-8, in the area of the southern end of the project alignment, is also visible in the 1953 aerial, as is Highway 395 (NETR Online 2021). By the time the 1964 aerial was taken, the segment of Highway 395 that intersects the project APE appears to have been demolished during the construction of I-15 to the west. The 1964 aerial also shows the overall development of the region, as well as the grading of Mission Gorge Road; the road appears to be complete by the time the 1966 aerial was taken. Along the northern portion of Mission Gorge Road, the 1968 shows grading underway for the development of the Meadowbrook RV Community. Recent aerial photographs, such as those from the 1990s, show the construction of SR 52 and the realignment of the section of Mission Gorge Road east of Big Rock Road. In order to make way for SR 52, two rows of mobile homes within the Meadowbrook RV Community were eliminated, and the original alignment of Mission Gorge Road (along the proposed alignment) was shifted south (NETR Online 2021).

Mining is visible in the Mission Trails region in the 1953, 1964, 1966, and 1968 aerial photographs and is recorded on the 1958 San Diego (1:250,000) map—one mine is recorded in the current location of the Kumeyaay Lake Campground and the other near the southern end of Father Junipero Serra Trail (NETR Online 2021). The northern mining site appears to expand over the course of the 1960s—this expansion is seen on the 1964, 1966, and 1968 aerial photographs. The 1967 La Mesa (1:24,000) topographic map also contains references to gravel pits in this area. However, the mining site appears to fall out of use by the time the 1978 aerial was taken (NETR Online 2021).

The majority of the southern mining site is located west of Father Junipero Serra Trail on the 1953 aerial; the subsequent 1964 and 1966 aerials show the mining operation expanding east, with operations appearing to cease by the time the 1968 aerial was taken. A quarry was recorded along the southern portion of Father Junipero Serra Trail, near Mission Gorge Road, on the 1967 La Mesa (1:24,000) topographic map. Based on the references to an explosives road made in the site form for P-37-004505, this site is likely the Morse Construction Company dynamite magazine.

## 4.3 NATIVE AMERICAN CONTACT PROGRAM

HELIX contacted the Native American Heritage Commission (NAHC) on May 28, 2021, for a Sacred Lands File (SLF) search and a list of Native American contacts for the project area. The NAHC indicated in a response dated June 21, 2021, that the results of the search were positive and that the Kumeyaay Cultural Repatriation Committee should be contacted for further information. Letters were sent on July 6, 2021, to Native American representatives and interested parties identified by the NAHC. To date, one response has been received: The San Pasqual Band of Mission Indians stated in a letter dated July 14, 2021, that the project alignment is located within the Tribe's Traditional Use Area. Because of this, the Tribe requests consultation under Section 106, as well as access to any cultural resource reports that have been or will be generated during the environmental review process. Native American correspondence is included as Appendix C (Confidential Appendices, bound separately).

## 4.4 FIELD SURVEY

A field survey of the proposed alignment site was conducted on May 11, 2021, by HELIX staff archaeologist James Turner and Senior Archaeologist Stacie Wilson. An additional survey of the project alignment located along Father Junipero Serra Trail and the northern section of Mission Gorge Road was conducted on May 14, 2021, by Mr. Turner and Ernest Pingleton from the Viejas Band of Kumeyaay Indians. Mr. Turner conducted site visits of the potential staging areas and the portion of the alignment located on Camino Del Rio North on May 19, 2021, and of the nine potential lift station alternatives on October 29, 2021. A field survey of the Segment 1 Alternative was conducted on August 27, 2021, by Mr. Turner, Ms. Wilson, and Senior Archaeologist Theodore Cooley.

Where feasible, portions of the proposed project alignment APE were walked in transects spaced approximately 5 to 10 meters apart. However, because the portions of the alignment from the Camino Del Rio North to Father Junipero Serra Trail and Father Junipero Serra Trail to the SR 52 overpass fell within developed roadways, most of the alignment was surveyed via reconnaissance methods or by viewing the route from a vehicle. Sections with visible hill cuts were surveyed on foot, as was the entirety of Father Junipero Serra Trail, sites within and immediately adjacent to the APE, and the Oak Grove Loop trail.

The proposed project alignment is situated with the right of way of paved roadways. The northern portion of the alignment (from the eastern terminus of Father Junipero Serra Trail to the SR 52 overpass) contains residential and commercial development to the south and freeway infrastructure to the north (Plates 1 and 2). Residential development is located along the northeastern portion of Mission Gorge Road, while industrial and commercial development is located along the southwestern portion (Plates 3 and 4). The southern portion of the alignment (from Zion Avenue to Camino Del Rio North) is located within an area consisting primarily of commercial development and freeway infrastructure, though the San Diego River is located immediately to the north (Plates 5 and 6).

The central portion of the alignment (the entirety of Father Junipero Serra Trail) consists of a paved, two-lane road adjacent to the San Diego River, cut into the slopes of Kwaay Paay Peak, and used primarily as a hiking or walking trail (Plates 7 and 8). Native vegetation and non-native weeds and grasses are located on either side of the roadway, and bedrock was visible in several areas. Portions of the Father Junipero Serra Trail, including the areas within or adjacent to resources P-37-004505, 011607, 011608, 011609, appeared to have been cut into the slope of the hillside, with some road surfaces located up to four to six feet below the natural contours of the land (Plate 9). Other portions of the Trail appeared to have been placed over filled-in areas, such as the section of the trail near the northern entrance into Oak Grove Loop (Plate 10).

Several potential staging areas within the Mission Trails Regional Park and within the northern portion of the APE were also surveyed by foot or reconnaissance methods. The staging areas are within existing disturbed or developed lands or pull-offs that have been cleared and covered with mulch along Father Junipero Serra Trail (Plate 11).

The nine potential lift station alternatives were surveyed by foot and reconnaissance methods. The nine potential sites had been developed in the past: Locations A and B are located within heavily landscaped and paved portions of automobile dealerships; Location C is located just north of the Interstate 8 West onramp within the Caltrans right-of-way; Locations D through F contain commercial buildings; and Location G has been graded during the demolition of an existing building. No cultural resources were observed in these areas.

The Segment 1 Alternative APE was surveyed by foot and via reconnaissance methods. The Segment 1 Alternative alignment was noted to be greatly overgrown with both native and non-native vegetation, restricting access to the existing pipeline alignment and resulting in extremely low ground visibility. As such, the survey within the Segment 1 Alternative APE primarily consisted of walking the existing informal trails that have been established between SR 52 and Forester Creek.

Plate 1. Overview of the APE along Mission Gorge Road, near the SR 52 Overpass, view to the northeast.

Plate 2. Overview of the APE along Mission Gorge Road, view to the west.

Plate 3. Overview of the APE along Mission Gorge Road at Mission Vista Drive, view to the east.

Plate 4. Overview of the APE along Mission Gorge Road at Princess View Drive, view to the southwest.

Plate 5. Overview of the APE along Riverdale Street, view to the south.

Plate 6. Overview of the APE along Camino Del Rio North, view to the west.

Plate 7. Overview of Father Junipero Serra Trail, view to the northeast.

Plate 8. Overview of Father Junipero Serra Trail, view to the southwest.

Plate 9. Overview of hill cut at the southern portion of Father Junipero Serra Trail, view to the southeast.

Plate 10. Overview of fill area along Father Junipero Serra Trail from the road, view to the southeast.

Plate 11. Example of a potential staging area near Climber's Loop North Trailhead, view to the north.

## 4.5 CULTURAL RESOURCES IDENTIFIED IN THE APE

Based on the results of the records search, 10 cultural resources are previously recorded within the APE surrounding the proposed alignment (Figures 4a-c, *Cultural Resources in the APE*). However, as discussed below and illustrated on Figures 4a-c, many of the sites are not accurately mapped at the SCIC; based on a review of site forms and archival reports, several of the resources are confirmed to have been documented outside of the APE. No new cultural resources were observed within the APE during the field survey.

### 4.5.1 Proposed Alignment

#### 4.5.1.1 P-37-004505 (CA-SDI-4505)

P-37-004505 was recorded in 1978 as a large lithic scatter, milling features, and a pictograph. At that time of initial recordation, eight distinct loci were identified; three contained lithic scatters, four contained lithic scatters and milling elements, and one contained the pictograph (Hanna 1978a). The

pictograph contains three red painted panels, containing an animal-like design, a complex design, and an element that resembles a Bishop's miter surmounted by a cross (Hedges and Hamann 1995). An explosives road was noted as running through the northern portion of the site, north of Locus C (Hanna 1978a). This resource has not been evaluated for inclusion within the NRHP or CRHR.

One locus, Locus E, is mapped by the SCIC as slightly extending into the APE; this locus consists of lithic tools, flakes, and fire-affected rock. It was observed during the pedestrian survey that a portion of the hill along the site boundary and adjacent to the eastern shoulder of Father Junipero Serra Trail appeared to have been cut during grading conducted for the construction of the Trail. Additionally, the western side of the roadway appeared to have been built up by fill soils—a culvert is located immediately northwest of the junction of Father Junipero Serra Trail and the entrance to the MTRP Visitor's Center, within a highly disturbed area. Several hiking trails also crisscross the area that contains the resource; one of these, the Oak Grove Loop, was walked during the survey. Visibility was good within the trail itself, though the surrounding area had thick vegetation. Visibility off the trail was low, ranging from 20 to 40 percent. No cultural material was observed within the APE during the survey.

#### 4.5.1.2 P-37-005688 (CA-SDI-5688)

This resource was recorded in 1978 as containing a flat "water-worn" rock with 15 shallow milling slicks and basins and partially covered by rock from a sewer line east of the site (Hanna 1978b). At the time of recordation, the resource had not been evaluated for inclusion within the NRHP or CRHR.

P-37-005688 is mapped at the SCIC as being within or immediately adjacent to the APE, adjacent to Father Junipero Serra Trail. During the survey, it was noted that this resource is located within the Mission Gorge, downslope of Father Junipero Serra Trail, and outside of the APE.

#### 4.5.1.3 P-37-006658 (CA-SDI-6658H)

Resource P-37-006658 consists of the Mission Dam, constructed between 1807 and 1815 or 1816 (Ferguson and Hanna 1978). Originally 224 feet long, 13 feet thick, and 13 feet high, portions of the dam are missing as a result of flooding, abandonment, and natural erosion (Hanna 1978c). The Old Mission Dam and Flume has been recorded and documented along several different segments; because of this, three different permanent numbers have been assigned (P-37-006660, 006658, and 020910). The Old Mission Dam and Flume is listed on the NRHP, designated as California Historic Landmark #52, and listed as San Diego Historical Resources Board Landmark #2 (Zepeda-Herman and Price 2016).

During the survey, it was noted that this resource has been mismapped at the SCIC—it lies perpendicular to the San Diego River, approximately 43 meters north of Father Junipero Serra Trail, well outside of the APE. The Dam was observed to be in much the same condition as it was when recorded in 1978.

#### 4.5.1.4 P-37-009242 (CA-SDI-9242)

P-37-009242 was initially recorded in 1982 as a light, highly dispersed lithic scatter consisting of three basalt flakes and a felsite core (Noah 1982). The site was tested in 1986 by Caltrans; seven backhoe trenches and 10 test units were excavated, producing more than 2,460 prehistoric artifacts and more than 600 historic artifacts from depths ranging from 30 to 90 centimeters (Corum and White 1986). The results of this testing indicated that the site may have functioned as a seasonal base camp (Corum 1986a). The majority of recovered artifacts came from units close to Mission Gorge Road; because of this, Caltrans postulated that an unknown portion of the site may have been destroyed by the

construction of Mission Gorge Road to the south (Corum and White 1986). Based on the limited variability and frequency of material recovered, the lack of datable carbonaceous material and distinct features, the sparsity of obsidian and "time-sensitive" material, and due to what Caltrans deemed probable destruction of the site by Mission Gorge Road, P-37-009242 was determined by Caltrans to have limited research potential, and therefore, was determined not eligible for the NRHP or CRHR (Corum and White 1986).

A portion of the site was tested again a few years later by ERC Environmental (ERCE) for the EMGPS and Force Main Project (Carrico et al. 1991). ERCE excavated two units in the eastern quarter of the site and recovered 187 lithic artifacts, 1.4 grams of faunal bone, and 0.1 grams of freshwater shell (Huey and Baker 1990a). On the site form update, ERCE noted that the site may be significant due to its multicomponent nature, though the form does not elaborate further. The corresponding evaluation report notes that the multicomponent ages relate to the Early and Late prehistoric periods and that the types of activities that occurred at the site included tool manufacturing and maintenance, food processing, and food consumption (Carrico et al. 1991). It was concluded in the report that the portion of the site that was tested by ERCE did not produce new information and concurred with Caltrans' determination that the site is not a significant resource. Gallegos and Associates performed construction monitoring for the EMGFM and did not observe any cultural material, noting that "trench excavation identified that soil within the trench was completely disturbed by construction of Mission Gorge Road and installation of various pipelines" (Kyle and Gallegos 1993a:2-9).

In 1992, the site was revisited; during this visit, it was noted that a large portion of the site was located within private property and was used as a horse corral (Kyle 1992). In an assessment for alternatives for the PDMWD Brine Line, Dudek noted that much of the site as mapped had been destroyed by the construction of SR 52, and that grading in the 1990s for the realignment of Mission Gorge Road likely destroyed any portion of the site that may have existed east of Big Rock Road (Comeau 2020).

During the current survey, the site was revisited, and the portion not within private property immediately north of Mission Gorge Rd was surveyed. Because of dense grasses and weeds, visibility was low, and no cultural material was observed. Based on information and sketch maps contained within previous site forms and reports, this resource has only ever been documented north of the Mission Gorge Road, outside of the existing EMGFM alignment.

#### 4.5.1.5 P-37-009243 (CA-SDI-9243)

Resource P-37-009243 was first recorded in 1978, and rerecorded in 1982, as containing a bedrock milling feature with seven basins and one slick and three quartz flakes north of Mission Gorge Road, within the proposed route of SR 52. A subsequent update in 1984 expanded the site to include two areas of milling and a thin scatter of ground stone and lithic artifacts (Corum 1984). Caltrans tested the site in 1986 for the proposed SR 52 alignment; through trenching and test units, more than 31,000 artifacts were recovered over an area of approximately 3327 square meters (Corum 1986b; Corum and White 1986b). Based on their results, Caltrans dated the site to approximately 1,200 to 2,300 years ago and theorized that the site likely functioned as a base camp throughout the entire span of its occupation (Corum and White 1986b). This resource was determined to be eligible for listing in the NRHP and was placed within an Environmentally Sensitive Area in 1986.

In 1991 and 1992, Ogden Environmental conducted a data recovery investigation (Carrico et al. 1994) and a subsequent pre-trenching program (Cooley and Glenn 1994) along the proposed Force Main

pipeline route through the northern portion of the site for the EMGFM Project. The data recovery program consisted of the excavation of 31 units and a pre-trenching program of an additional four units for features encountered during the pre-trenching. A thin layer of fill, 10 to 20 centimeters in thickness, was observed to be present over much of the site and, while most of the cultural material was recovered from 30 to 90 centimeters, one feature was found to extend to a depth of nearly 170 centimeters. A radiocarbon date of circa 5,400 B.P. was also obtained from a hearth feature at a depth of 50 to 60 centimeters. More than 67,000 artifacts were recovered during these excavations, including 25 human bone fragments and 18 possible human bone fragments, likely representing an incidental scattering of human remains (Carrico et al. 1994; Cooley 1995; Cooley and Glenn 1994; Cooley and Mitchell 1992).

In 1994, Mooney and Associates performed a data recovery excavation prior to the construction of SR 52; this excavation, consisting of 20 units, was located primarily within the southern edge of the site, immediately south of the EMGFM alignment. This program produced over 9,000 artifacts, including 79 fragments of cremated human remains (McDonald et al. 1994). It was noted that the remains were recovered from depths lower than 10 centimeters; most of the remains were recovered from between 30 to 80 centimeters. Mooney and Associates believed that the scarcity of remains in the upper levels was likely caused by grading disturbances that occurred within the section of the resource they excavated (McDonald et al. 1994). Additionally, it was noted that portions of the site had been bladed as much as 20 centimeters and capped with up to 40 centimeters of fill soils, resulting in the paucity of artifacts in the upper levels.

In 2009, ASM Affiliates, Inc. visited the site and noted a bedrock outcrop with evidence of milling, more than 40 lithic artifacts, a mano fragment, and six mammal bone fragments observed near cleared areas caused by small mammal burrows (Williams and Piek 2011a). Gallegos and Associates performed construction monitoring for the EMGFM and identified a number of prehistoric artifacts within the trench excavation for the installation of the Force Main, but only a mano fragment, a complete metate, and pestle were collected during the monitoring program (Kyle and Gallegos 1993a).

The boundary on file at the SCIC for P-37-009243 shows the site is primarily being situated under SR 52; in addition, the 2009 ASM Affiliates, Inc. update indicates that only the northern portion of the site was surveyable, as the majority of the site lies under SR 52 and Dudek recently noted in an assessment for alternatives for the PDMWD Brine Line that much of the site had been graded or capped by the construction of SR 52 (Comeau 2020). However, this resource has likely been mismapped by the SCIC. Both the site record and results of the testing programs record the site as being located immediately north of the original alignment of Mission Gorge Road—which is now the alignment of SR 52—placing the site well to the north and outside of the proposed alignment APE along the Mission Gorge Road (Figure 4a). As noted above in Section 4.2, Mission Gorge Road was rerouted to the south in the 1990s, with two rows of mobile homes within the Meadowbrook RV being demolished for the realignment.

During the field survey, it was observed that little to no original ground surface exists along the APE of the proposed alignment, as much of the land had been developed and landscaped during the realignment of Mission Gorge Road and the construction of the SR 52.

#### 4.5.1.6 P-37-010148 (CA-SDI-10148)

Site P-37-010148 is a prehistoric artifact scatter located at the EMGPS. Originally documented as a prehistoric habitation that included 29 flakes, two pieces of debitage, one core, two scrapers, and one

potsherd (Thesken 1984), the site data was updated by Corum (1986d), who documented 1,354 pieces of debitage, eight cores, seven flake tools, nine manos, two metates, four unidentifiable pieces of ground stone, two scrapers, one piece of pottery, animal bone, and charcoal during testing of the site in 1985 for Caltrans in conjunction with the development of SR 52. The site was tested again in 1990 for the EMGPS and Force Main Project (Carrico et al. 1991). A total of 761 artifacts, including 717 pieces of debitage, four flake tools, a preform fragment, five cores, 21 mano fragments, four metate fragments, one unidentifiable piece of ground stone, one stone bowl fragment, and one piece of ochre were recovered in deposits extending up to 90 centimeters below the surface.

The resource was evaluated as ineligible for inclusion in the NRHP; however, due to the rich archaeological deposit, ERCE recommended the site eligible for listing in the California Register of Historical Resources (Carrico et al. 1991; Comeau 2020). Although P-37-010148 contained numerous artifacts, the evaluation noted disturbances to the site from agricultural activities and the lack of datable materials and temporally diagnostic artifacts. However, based on the testing results, monitoring during grading for the pump station and force main was required by the City of San Diego (Kyle and Gallegos 1993a). During the monitoring effort, a stone bowl with burned (non-human) bone was recovered, in addition to six hearths and five complete metates. As a result, the non-significant determination for the western portion of the site within the City of San Diego jurisdiction was changed to significant, and a data recovery program was undertaken; however, the eastern portion of the site, located within the City of Santee and Caltrans right-of-way, was not included in the significance change or the data recovery study. The completion of the data recovery program mitigated the impacts to the site from the development of the EMGPS and EMGFM (Kyle and Gallegos 1993b).

An update in 2009 by Williams and Piek for the San Diego River Watershed Project failed to identify any surface manifestations of the site due to irrigation and indigenous plant habitat revitalization activities. The northern portion of the site is mostly not accessible due to thick vegetation within the San Diego River channel; much of the remaining portions of the site have been destroyed during the construction of the EMGPS and the construction of SR 52. However, Dudek, in an assessment for alternatives for the PDMWD Brine Line, noted that intact portions of the site may still present underneath fill soils, and thus, ground-disturbing activities in these areas could potentially impact the resource (Comeau 2020).

#### 4.5.1.7 P-37-011607 (CA-SDI-11607)

P-37-011607 consists of a temporary prehistoric occupation area with flaked and ground lithic artifacts (Pigniolo and Briggs 1990a). The resource is bisected by Junipero Serra Trail. A testing program was implemented by ERCE in 1990, with more than 120 lithic artifacts and more than 180 grams of animal bone being recovered. ERCE determined that the resource contained a limited subsurface deposit; most of the resource was confined to the surface, and more than 80 percent of it had been disturbed by the road cut and erosion control ditches within the northern portion (Huey and Baker 1990b). As such, this resource was evaluated as not eligible for listing in the NRHP (Carrico et al. 1991).

During the pedestrian survey, visibility outside of the immediate proximity to the road was poor due to dense vegetation. It was observed that the land north of the road contains a drainage, while the area south of the road contains a flat terrace or knoll that slopes to the north. It was also noted during the field survey that the visible topsoil was shallow and that Father Junipero Serra Trail appeared to have been cut through an existing knoll during the road's initial construction, with the current roadway where the existing EMGFM is located, being approximately four feet below the original ground surface. No cultural material was observed within the roadway or along the road shoulders.

#### 4.5.1.8 P-37-011608 (CA-SDI-11608)

This resource was recorded as a prehistoric occupation area with more than 100 flaked and ground stone artifacts located on a hill terrace on the south side of Father Juniper Serra Trail (Pignolio and Briggs 1990b). This resource has not been evaluated for inclusion within the NRHP or CRHR.

The mapped location of the site on file at the SCIC places it within or adjacent to the project APE. During the survey, the resource was observed to be at the top of a large hill cut south of the roadway, which corresponds to the sketch map provided with the site form (Pignolio and Briggs 1990b).

#### 4.5.1.9 P-37-011609 (CA-SDI-11609)

P-37-011609 consists of a bedrock milling station with two flakes and a bifacial shouldered mano fragment (Pigniolo and Briggs 1990c). It was noted that this resource was located on a cut bank above the south side of Father Junipero Serra Trail. This resource has not been evaluated for inclusion within the NRHP or CRHR.

The mapped location of this resource on file at the SCIC places it adjacent to (and outside of) the APE. During the field survey, the site was observed to be located on the top of a cut bank, approximately six meters from the road, within the APE. This location corresponds to the sketch map provided with the site form (Pigniolo and Briggs 1990c). Midden soils were observed, and one milling slick was reidentified—this slick was in poor condition and was located approximately seven meters south of Father Junipero Serra Trail.

#### 4.5.1.10 P-37-033557

Resource P-37-033557 consists of a segment of Highway 395, a north-south inland highway that connected downtown San Diego to Riverside and San Bernardino (Stringer-Bowsher 2018). Built between 1926 and 1933 and designated in 1935, the highway experienced several realignments in the 1940s and 1950s, before being decommissioned in 1964. P-37-033557 was recommended eligible for the NRHP under Criterion A and CRHR under Criterion 1 for association with significant events. The resource was not recommended eligible for the NRHP under Criteria B, C, and D and the CRHR under Criteria 2, 3, and 4 (Stringer-Bowsher 2018). Contributing elements of Highway 395 include those that follow the alignments from 1935-1968.

The resource is mapped at the SCIC as intersecting the project alignment at the intersection of Ward Road and Camino Del Rio North and extending north along Ward Road. During the field survey, the area south of Camino Del Rio North was noted to have been extensively disturbed during the construction of I-8 and the I-8 and I-15 interchange—no evidence of an extant portion of the resource was observed south of Camino Del Rio. Additionally, stretches of Camino Del Rio North near the mapped location of the resource were observed to have been trenched in the past, likely as part of previous utility or sewer work in the area.

#### 4.5.1.11 Other Resources, Objects, or Infrastructure

##### Father Junipero Serra Trail

Father Junipero Serra Trail, an approximately 2.6-mile-long paved two-lane roadway, is first recorded in its current alignment on the 1903 La Jolla (1:62,500) topographic map; however, the northern portion of

the roadway that connects to modern-day Mission Gorge Road contains a sharp southern turn. This feature of the roadway is visible on the subsequent topographic maps and on the historic aerial from 1953 (NETR Online 2021). The 1964 aerial shows the road in its modern alignment—the sharp southern turn is still extant in this aerial photograph; however, the road appears to fall out of use by the mid-1990s (NETR Online 2021). By the time the 1998 aerial was taken, portions of this road appear to have been overgrown by vegetation as it fell into disuse.

As previously mentioned, Father Junipero Serra Trail appears to have been cut into the side of Kwaay Paay Peak; patches of exposed soil and granite bedrock are visible throughout the trail (Plate 12). The stretch of the Trail running through the drainage south of Oak Grove Loop appears to have been built up by fill soils (Plate 10, above). Several manholes and other utility access are located throughout the roadway.

Plate 12. Overview of Father Junipero Serra Trail showing evidence of cutting (right), view to the south.

### 4.5.2 Segment 1 Alternative (Northern Alignment)

Four resources are located within the APE of the Segment 1 Alternative: P-37-000205, 008594, 009243, and 010148 (Figure 4a). A pedestrian survey of the Segment 1 Alternative APE has not yet been conducted for this study; however, as described in Section 4.1.2 above, this portion of the APE has been extensity surveyed and documented by previous cultural resources studies. The Segment 1 Alternative route would only be utilized in the event that no other viable or feasible alternatives exist.

#### P-37-000205 (CA-SDI-205)

P-37-00205 was first recorded by Malcolm Rogers in the 1920s and was initially described on modern site forms as a bedrock milling site with lithic material exposed within a road cut approximately 24 inches below the surface (Kyle 1992b). In 1986 and 1991, Caltrans and ERCE implemented testing programs consisting of multiple trenches within the recorded site boundary; however, neither of the testing programs were able to reidentify the resource (Carrico et al. 1991; Corum and White 1986a). It was noted that the site was likely mismapped or may have been destroyed by the construction of the original alignments of Mission Gorge and Mesa Roads and the development of the Meadowbrook Mobile Home Park. ERCE concluded that the "recorded location of the site is not an important of significant resource" Carrico et al. 1991:5-2).

During the monitoring program undertaken for the construction of the EMGFM, one complete metate was recovered, and four manos and several cores were observed, within and adjacent to the plotted location of site CA-SDI-205 (Kyle and Gallegos 1993a). In 2009, ASM Affiliates, Inc., revisited the site location but did not observe any artifacts or features in the recorded site location (Williams and Piek 2009b). As noted in the 2009 update, it is possible that the site is misplotted, and the site area Rogers refers to is CA-SDI-9243, located less than 50 meters to the west.

### P-37-008594 (CA-SDI-8594)

P-37-008594 was first recorded in 1981 and consists of two areas of bedrock milling features: Locus A, located one-half mile west of the (original) Mission Gorge Road and Fanita Drive intersection; and Locus B, located south of the original Mission Gorge Road alignment, which is the current route of SR 52 (Christenson and Christenson 1981; Williams and Piek 2009c). Two midden areas are associated with Locus A (Corum 1986c). The resource was tested in 1986 by Caltrans, who recorded seven bedrock milling features within Locus A and three features at Locus B. More than 350 artifacts were recovered during this testing program, and Caltrans determined that the resource has little research potential due to disturbances, such as the construction of the original alignment of Mission Gorge Road. As such, Caltrans determined the site to not be eligible for listing in the NRHP (Corum 1986c; Corum and White 1986a). In 1991, ERCE expanded the site to include 19 bedrock milling features, a yoni, and several hundred lithic, ground stone, and faunal bone artifacts (Carrico et al. 1991; Huey and Baker 1990). On the site form update, ERCE noted that the resource may be significant because there was a "potential to answer research questions" (Huey and Baker 1990); however, the corresponding evaluation report details additional testing that was completed for the EMGPS and Force Main Project and concludes that "No new or additional information was discovered during ERCE's investigation, and Caltrans' previous conclusion that CA-SDI-8594A is not eligible for National Register status remains unchanged" (Carrico et al. 1991: 4-79).

One bedrock milling feature from the site was later moved to the MTRP visitor center at the request of the Native American community (Kyle, 1992c). Gallegos and Associates performed construction monitoring for the EMGFM and identified ground stone and lithic tools, and historic artifacts dating to the 1920s (Kyle and Gallegos 1993a). Native American observers Fern Southcott and Clarence Brown examined the yoni during this time and determined the feature was not actually a yoni (Comeau 2020; Kyle 1992c). ASM Affiliates, Inc, revisited the site in 2009. During this survey, only the portion of Locus A north of the highway retaining wall was visited, with the construction of the SR 52 onramp resulting in the possible destruction or capping of the southern portion of the locus. Dudek, in the PDMWD Brine Line Alternative Assessment, noted that there may be intact archaeological deposits remaining within Locus A (Comeau 2020). Locus B is documented at the southern edge of the Segment 1 Alternative APE, within the corridor of SR 52, and likely destroyed.

#### 4.5.2.1 P-37-009243 (CA-SDI-9243)

Resource P-37-009243 is described in detail in Section 4.5.1.5; only brief information relevant to the Segment 1 Alternative APE is discussed here.

As noted in Section 4.5.1.5, the boundary on file at the SCIC for P-37-009243 shows the site is primarily being situated under SR 52; however, this boundary is misplotted and according to available information on file at the SCIC, the site has only been documented north of the original alignment of Mission Gorge Road—which is now the alignment of SR 52. However, while the resource is not known to be located

within the APE of the proposed alignment, the APE of Segment 1 Alternative does run through the center of the site (Figure 4a). The site was subjected to a data recovery investigation (Carrico et al. 1994) and a subsequent pre-trenching program (Cooley and Glenn 1994), and an additional data recovery excavation occurred prior to the construction of SR 52 (McDonald et al. 1994). These investigations resulted in the recovery of a large amount of cultural material, features, and human remains. During the subsequent monitoring program undertaken for the construction of the EMGFM, a large number of artifacts were noted, but only three artifacts (a mano fragment, a complete metate, and pestle) were collected (Kyle and Gallegos 1993a). While the 1994 data recovery investigation and subsequent pre-trenching program mitigated the impacts to the site from the construction of the EMGFM, it is likely that substantial undisturbed subsurface deposits still exist within the APE outside of the existing EMGFM alignment.

#### 4.5.2.2 P-37-010148 (CA-SDI-10148)

Resource P-37-010148 is described in detail in Section 4.5.1.6; only brief information relevant to the Segment 1 Alternative APE is discussed here.

The existing EMGFM alignment heading west from the EMGPS is situated within the Segment 1 Alternative APE and within the portion of the site within the City of San Diego property that has been determined as significant. As discussed in Section 4.5.1.6, a data recovery program was undertaken to mitigate the impacts to the site from the development of the EMGPS and EMGFM (Kyle and Gallegos 1993b). However, it is likely that subsurface deposits still exist within the APE outside of the existing EMGFM alignment.

# 5.0 SUMMARY AND MANAGEMENT CONSIDERATIONS

A study was undertaken to identify cultural resources that are present in the East Mission Gorge Force Main Rehabilitation and Regional Brine Line Project APE and to determine the effects of the project on historical resources, per CEQA, and historic properties, per the NHPA. The project would primarily include the rehabilitation of the existing 48-inch EMGFM, which will serve as the WWFM, and the construction of a new RBL, which would be constructed within the existing EMGFM via a sliplining operation. On the north end of the project alignment, the proposed alignment would consist of the installation of three pipelines within Mission Gorge Road via open trench construction, between the EMGPS and the intersection with the existing EMGFM near the Meadowbrook community entrance.

Due to utility congestion of the Mission Gorge Road corridor, an additional alignment option is being considered for the northern segment, where one or more of the new pipelines (WWFM, RBL, or PD2FM) may be constructed within the existing EMGFM that runs along Forester Creek north of SR 52 (Segment 1 Alternative). If undertaken, work along the existing EMGFM alignment would be performed using specialized methods such as sliplining or cured-in-place pipelining in order to minimize excavation and disruption to the maximum extent. On the south end of the proposed alignment, the RBL would be extended via open trench construction until reaching the existing South Mission Valley Trunk Sewer. The Segment 1 Alternative route would only be utilized in the event that no other viable or feasible alternatives exist.

# 5.1 STUDY SUMMARY AND IMPACT ANALYSIS

## 5.1.1 Proposed Alignment

The cultural resources study identified a total of 10 resources mapped within or adjacent to the proposed alignment APE. The resources within the proposed alignment APE were all previously recorded and include six prehistoric occupation/habitation areas (P-37-004505, 009242, 009243, 010148, 011607, and 011608), two bedrock milling feature sites (P-37-005688 and P-37-011609), the Old Mission Dam and Flume (P-37-006658), and the historic Highway 395 (P-37-033557).

Of these ten cultural resources within or adjacent to the APE, six have been evaluated for significance for inclusion in the NRHP or CRHR: P-37-009242 and P-37-011607 have been previously determined to be not eligible for either the NRHP or the CRHR. The portion of P-37-010148 located within the City of San Diego jurisdiction has been determined to be a significant resource and impacts to the site as a result of the development of the EMGPS and EMGFM have been mitigated by a data recovery program (Kyle and Gallegos 1993b). The remainder of the site has been previously determined to be not eligible for either the NRHP or the CRHR. P-37-009243 and Old Mission Dam and Flume (P-37-006658) have been determined to be eligible for listing in the NRHP and CRHR, but the site boundaries for these resources are misplotted at the SCIC and the sites are situated outside of the APE. As such, no impact to these two resources would occur as a result of the proposed project, if constructed within the proposed alignment. Highway 395 (P-37-033557) has been evaluated as eligible for the NRHP under Criterion A and CRHR under Criterion 1 for association with significant events; however, within the APE, the highway was demolished in the 1960s from the construction of I-15.

Of the remaining four resources that have not been evaluated for inclusion in the NRHP or CRHR, one resource, P-37-005688, was also determined to be situated outside of the APE, and no impact to the site will occur as a result of the proposed project. The remaining three resources, P-37-004505, 011608, and 011609, are located within the APE but outside of the roadway and the existing EMGFM alignment where sliplining will occur. Avoidance of these three resources is recommended to ensure that no impacts will occur as a result of the proposed project. Conclusions and recommendations for each of the resources are provided in Table 4, *Cultural Resources within the Proposed Alignment APE*, and are discussed in further detail below.

**Table 4**
**CULTURAL RESOURCES PROPOSED ALIGNMENT APE**

| Resource Number | Description | Location | Eligibility Status | Mitigation Recommendation |
|---|---|---|---|---|
| P-37-004505 (CA-SDI-4505) | Prehistoric habitation site; large lithic scatter with milling features and pictographs. | At edge of APE; outside of existing EMGFM alignment | Not Evaluated | Avoidance |
| P-37-005688 (CA-SDI-5688) | A prehistoric bedrock milling station with 15 slicks and basins. | Outside of APE | Not Evaluated | None |
| P-37-006658 (CA-SDI-6658H) | The Mission Dam, built between 1807 and 1815 or 1816. | Outside of APE | Eligible | None |

| Resource Number | Description | Location | Eligibility Status | Mitigation Recommendation |
|---|---|---|---|---|
| P-37-009242 (CA-SDI-9242) | Prehistoric occupation site with a light, highly dispersed lithic scatter. | At edge of APE; outside of existing EMGFM alignment | Not Eligible | None |
| P-37-009243 (CA-SDI-9243) | Prehistoric village/occupation site. | Outside of APE | Eligible; data recovery has occurred for portions of the site. | None |
| P-37-010148 (CA-SDI-10148) | Prehistoric habitation site. | Within APE at EMGPS and along existing EMGFM alignment | Eastern portion of the site located within the City of Santee and Caltrans right-of-way determined not eligible; western portion within City of San Diego evaluated as not significant and later changed to significant/important under CEQA and City of San Diego guidelines. A data recovery program has mitigated the impacts to the site from the construction of the EMGPS and EMGFM. | None |
| P-37-011607 (CA-SDI-11607) | A limited or temporary prehistoric occupation area with debitage and stone tools. | Within APE along existing EMGFM alignment | Not Eligible | None |
| P-37-011608 (CA-SDI-11608) | A prehistoric occupation area with lithic and ground stone artifacts. | Within APE; outside of existing EMGFM alignment | Not Evaluated | Avoidance |
| P-37-011609 (CA-SDI-11609) | A prehistoric bedrock milling station with two flakes and a mano fragment. | Within APE; outside of existing EMGFM alignment | Not Evaluated | Avoidance |
| P-37-033557 | Historic Route 395, built between 1926 and 1933 and designated in 1935. | Within APE; perpendicular to RBL alignment extension | Eligible | None (no project impacts to resource will occur). |

#### 5.1.1.1 Prehistoric Resources

### P-37-004505 (CA-SDI-4505)

P-37-004505, a large lithic scatter with milling features and pictographs, is mapped by the SCIC as extending into the project APE. It was observed during the pedestrian survey that a portion of the hill adjacent to Father Junipero Serra Trail appeared to have been cut during the initial grading of the roadway; the eastern side of the Trail contained patches of exposed granite and cobbles, which are also seen several times throughout the Trail to the north. The western side of the Trail also appeared to have been built up by fill soils. Because the construction of Father Junipero Serra Trail required a large amount of grade cutting, especially throughout the area containing P-37-004505, it is unlikely that the resource currently extends into the roadway of Father Junipero Serra Trail where the existing EMGFM exists. Avoidance of the portion of the site recorded outside of the road right-of-way is recommended to ensure that no impacts will occur as a result of the project.

### P-37-005688 (CA-SDI-5688)

P-37-005688 was recorded as consisting of a milling station with numerous slicks and basins located within or immediately adjacent to the northwestern edge of the Father Junipero Serra Trail portion of the project APE. The resource was observed during the survey to be located adjacent to the San Diego River, over 30 meters downslope of Father Junipero Serra Trail and outside of the APE. As such, this resource will not be impacted by the project.

### P-37-009242 (CA-SDI-9242)

This resource is a multi-component habitation site that has been previously evaluated to not be significant (Carrico et al. 1991; Corum and White 1986). While previous researchers hypothesized that there is potential for the site to extend south of the original Mission Gorge Road alignment, the results of the monitoring program conducted for the construction of the EMGFM did not result in the identification of any cultural material within the trench excavated adjacent to site location within the roadway of Mission Gorge Road (Kyle and Gallegos 1993a). As such, no significant impacts to the resource would result from the project.

### P-37-009243 (CA-SDI-9243)

P-37-009243 was recorded as a village/occupation site and mapped by the SCIC as extending into the northern portion of the project APE. However, upon closer examination of the site documentation, as well as historic aerials, it appears that the resource had been mismapped at some point in the past. As described above, during the construction of SR 52 in the 1990s, the original alignment of Mission Gorge Road was moved south, and two rows of mobile homes within the Meadowbrook RV Community were eliminated (NETR Online 2021). Both the site record and results of the testing programs record the site as being located immediately north of the original alignment of Mission Gorge Road—now the location of SR 52—placing the site well outside of the APE of the proposed alignment. As such, this resource will not be impacted by the project if constructed within the proposed alignment.

### P-37-010148 (CA-SDI-10148)

P-37-010148 is a prehistoric temporary habitation site. The resource was tested for significance and determined not eligible for listing in the NRHP or the CRHR (Carrico et al. 1991; Corum 1986). However,

during a subsequent monitoring program for the EMGPS, additional artifacts and features were encountered. As a result, the determination for the western portion of the site located within the City of San Diego jurisdiction was changed to significant, and a data recovery program was implemented. The eastern portion of the site located within the City of Santee and Caltrans right-of-way was not included in the significance change or the data recovery study. The completion of the data recovery program mitigated the impacts to the site from the development of the EMGPS and EMGFM (Kyle and Gallegos 1993). As the proposed alignment is situated within the ineligible, eastern portion of the site that has subsequently been destroyed by the construction of SR 52 and realignment of Mission Gorge Road, no significant impacts to the resource would occur.

### P-37-011607 (CA-SDI-11607)

Father Junipero Serra Trail bisects this site, recorded as a limited or temporary prehistoric occupation area, in an east-west direction. The construction of Father Junipero Trail required grading cuts to remove portions of the hill terrace; this is evident along the southern edge of the Trail, where a near-vertical cut is visible. Additionally, as noted in the 1990 ERCE site update, most of the resource was confined to the surface, and more than 80 percent of it had been disturbed by the road cut and erosion control ditches. Due to the depth of the grading cut—more than three feet in places—and the construction of Father Junipero Serra Trail, any cultural material in this segment of the trail had likely been removed. P-37-011607 has been previously evaluated as not eligible for listing in the NRHP (Carrico et al. 1991). As such, no significant impacts to the resource would result from the project.

### P-37-011608 (CA-SDI-11608)

P-37-011608, an occupation area with lithic and ground stone artifacts, was observed during the current survey to be at the top of a large hill approximately 20 meters above Father Junipero Serra Trail. However, the roadway for the Trail has been cut into the northern edge of the site boundary, making it unlikely that the resource exists within the roadway along the existing EMGFM alignment. As P-37-011608 has not been evaluated for inclusion within the NRHP or CRHR, avoidance of the site is recommended to ensure that no impacts will occur as a result of the project.

### P-37-011609 (CA-SDI-11609)

P-37-011609 consists of a bedrock milling station with two flakes and a mano fragment situated on the top of a cut bank, approximately six meters above Father Junipero Serra Trail. The construction of Father Junipero Serra Trail required extensive grading with cut and fill operations—because of this, any subsurface component of this resource was likely destroyed during the construction of the road, and it is unlikely that the resource currently exists within the existing EMGFM alignment. As P-37-011609 has not been evaluated for inclusion within the NRHP or CRHR, avoidance of the site is recommended to ensure that no impacts will occur as a result of the project.

## 5.1.1.2 Historic Resources

### P-37-006658 (CA-SDI-6658H)

This resource, the Old Mission Dam and Flume, has been mismapped on the SCIC files. The dam lies approximately 43 meters north of Father Junipero Serra Trail, perpendicular to the San Diego River. As such, it is not located within the APE and will not be impacted by the project.

### P-37-033557

As mapped by the SCIC, a segment of the Highway 395 route intersects the project alignment at the intersection of Ward Road and Camino Del Rio North. Aerial photographs depict the demolition of the highway during the construction of I-15 during the 1960s. The aerial photograph from 1964 shows no trace of Highway 395 existing in the area (NETR Online 2021). Additionally, no evidence of the highway was observed during the field survey. As such, no impacts to this resource as a result of the proposed project will occur.

## 5.1.2 Segment 1 Alternative (Northern Alignment)

The cultural resources study identified a total of four resources mapped within or adjacent to the Segment 1 Alternative APE. The resources within the Segment 1 Alternative APE were all previously recorded and include four prehistoric sites: P-37-000205, 008594, 009243, and 010148. Previous investigations have concluded that two of the resources within the Segment 1 Alternative APE (P-37-009243 and the western portion of P-37-010148) are considered significant resources and are eligible for inclusion within the NRHP and CRHR; however, data recovery efforts have been previously undertaken to mitigate impacts resulting from the construction of the EMGPS and EMGFM (Carrico et al. 1994; Kyle and Gallegos 1993b). P-37-008594 has been evaluated for significance for inclusion in the NRHP or CRHR and determined to be not eligible for either the NRHP or the CRHR. Extensive testing has occurred within the site boundary of P-37-000205 but limited cultural material has been identified. Conclusions and recommendations for the four previously documented cultural resources located within the Segment 1 Alternative APE are provided in Table 5, *Eligibility Recommendations of Cultural Resources Within Segment 1 Alternative APE*.

**Table 5**
**CULTURAL RESOURCES WITHIN THE SEGMENT 1 ALTERNATIVE APE**

| Resource Number | Description | Location | Eligibility Status | Recommendation |
|---|---|---|---|---|
| P-37-000205 (CA-SDI-205) | Prehistoric bedrock milling site. | Within APE, along existing EMGFM alignment | Not Evaluated – testing programs have been undertaken with no cultural material observed. Possible that the site is misplotted. | Avoidance of all new impacts outside of the existing EMGFM |
| P-37-008594 (CA-SDI-8594) | Two areas of bedrock milling features with a midden deposit. | Locus A within APE, along existing EMGFM alignment | Not Eligible. | None |
| P-37-009243 (CA-SDI-9243) | Prehistoric village/ occupation site. | Within APE, along existing EMGFM alignment | Eligible; data recovery has occurred for the development of the EMGFM | Avoidance of all new impacts outside of the existing EMGFM |

| Resource Number | Description | Location | Eligibility Status | Recommendation |
|---|---|---|---|---|
| P-37-010148 (CA-SDI-10148) | Prehistoric habitation site. | Within APE at EMGPS and along existing EMGFM alignment | Eastern portion of the site located within the City of Santee and Caltrans right-of-way determined not eligible for listing in the NRHP or the CRHR; western portion within City of San Diego evaluated as not significant and later changed to significant/important under CEQA and City of San Diego guidelines. A data recovery program has mitigated the impacts to the site within the East Mission Gorge Pump Station property. | Avoidance of all new impacts outside of the existing EMGFM |

#### 5.1.2.1 Prehistoric Resources

### P-37-000205 (CA-SDI-205)

P-37-000205, noted to be a bedrock milling site with exposed lithic material, has not been evaluated for inclusion in the NRHP or CRHR; as noted above, numerous site visits and testing programs involving the excavation of multiple trenches have failed to locate this resource in its currently mapped location, including an evaluation undertaken for the construction of the EMGFM. Because of this, it is likely that little to no impact to this resource will occur; however, avoidance of any new ground disturbance outside of the existing EMGFM right-of-way within the site boundary is recommended to ensure that no significant impacts will occur to the site as a result of the project.

### P-37-008594 (CA-SDI-8594)

P-37-008594 is a prehistoric occupation site that was determined to not be eligible for listing in the National Register (Carrico et al. 1991; Corum and White 1986). As such, no significant impacts to the resource would result from the project.

### P-37-009243 (CA-SDI-9243)

P-37-009243 was recorded as a village/occupation site determined to be eligible for listing in the NRHP. A discussed above, several data recovery programs have occurred at the site within the Segment 1 Alternative APE, including a data recovery investigation (Carrico et al. 1994) and a subsequent pre-trenching program (Cooley and Glenn 1994) that were undertaken for the construction of the

EMGFM, and an additional data recovery excavation that occurred prior to the construction of SR 52 (McDonald et al. 1994). The completion of the data recovery programs has mitigated the impacts to the site from the development of the EMGFM; however, it is likely that substantial undisturbed subsurface deposits still exist within the APE outside of the existing EMGFM alignment. As such, avoidance of any new ground disturbance outside of the existing EMGFM right-of-way within the site boundary is recommended to ensure that no significant impacts will occur to the site as a result of the project.

### P-37-010148 (CA-SDI-10148)

As addressed above, the eastern portion of P-37-010148, a prehistoric temporary habitation site, located within the City of Santee and Caltrans right-of-way, has been previously determined as not eligible, with the western portion of the site within the City of San Diego evaluated as not significant and later changed to significant/important under CEQA and City of San Diego guidelines. A data recovery program has mitigated the impacts to the site from the development of the EMGPS and EMGFM (Kyle and Gallegos 1993b). However, as the western portion of the site that has been determined significant is located within the Segment 1 Alternative APE, avoidance of any new ground disturbance outside of the existing EMGFM right-of-way within the site boundary is recommended to ensure that no new impacts will occur to the site as a result of the project.

## 5.2 RECOMMENDATIONS

Based on the results of the current study, with avoidance measures as recommended above in place, no adverse effects to historic properties, per the NHPA, or significant impacts historical resources, per CEQA, will occur as a result of the proposed project, including both the proposed and Segment 1 Alternative alignments.

However, a majority of the APE was covered by modern development in the form of roadways and commercial/industrial structures and dense vegetation within the San Diego River valley, and much of the original ground surface could not be observed. Additionally, the results of the records search identified numerous cultural resources located within a half-mile radius of the project, and much of the project alignment is located within the San Diego River valley, which is sensitive for prehistoric cultural resources in general and contains alluvial soils, where buried cultural resources may exist.

Based on this, there is a potential for buried cultural resources to be present along the APE, including within areas previously excavated for the existing EMGFM, where soil with cultural material may have been redeposited. As such, it is recommended that an archaeological and Native American monitoring program be implemented for ground disturbance occurring within undeveloped areas, areas containing young alluvium, or near known cultural resource locations. The monitoring program would include attendance by the archaeologist and Native American monitor at a pre-construction meeting with the construction contractor and the presence of archaeological and Native American monitors during ground-disturbing activities. 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 JPA staff to develop and implement appropriate mitigation measures. Because the proposed project pipelines are primarily within paved roads and previously disturbed areas, if the archaeological monitor, in conjunction with the Principal Investigator and Native American monitor, determines that monitoring is no longer warranted within any section of the

proposed project pipeline, the JPA should be informed as such and will make the final determination on the necessity for additional monitoring.

If 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

# James Turner, RPA

**Staff Archaeologist**

## Summary of Qualifications

Mr. Turner is a Registered Professional Archaeologist (RPA) with a Master's degree in Anthropology and field and college-level teaching experience in archaeology. He is experienced in Section 106, the Native American Graves Protection and Repatriation Act (NAGPRA), and writing detailed reports. Mr. Turner has archaeological research and fieldwork expertise throughout southern California. He has also received training in identifying and analyzing animal remains in archaeological contexts, historic artifact identification, and technical writing. Mr. Turner's experience meets the Secretary of the Interior's Professional Qualification Standards for archaeology.

## Selected Project Experience

**eTS 43472 "Gold Mine" Monitoring** (2020). Archaeologist for an erosion control and repair project in the community of Julian. Conducted cultural resource monitoring and report preparation. Work performed for San Diego Gas & Electric.

**Aliso Creek Canyon Restoration Project** (2020). Archaeologist for an erosion repair project in Lake Forest. Conducted a field survey of the project area, performed background research, and produced a cultural resources report. Work performed for the Orange County Department of Public Works.

**Broadway Channel Improvements - Phase A** (2020 - ). Archaeologist for an earthen channel improvement project in the city of El Cajon. Performed background research and prepared cultural resource survey report. Work performed for City of El Cajon.

**Clairemont Community Plan Update EIR Ph1** (2020). Archaeologist for the Clairemont Community Plan Update. Performed background research and assisted with preparing the Community Plan Update cultural resources section. Work performed for the City of San Diego.

**Cordial Road Pipeline** (2020). Archaeologist for a pipeline replacement project in the unincorporated portion of the City of El Cajon. Performed background research and field survey. Other responsibilities included the production of a letter report detailing the methods and results of the survey, as well as the completion of a site record update to submit to the South Coastal Information Center. Work performed for the Padre Dam Municipal Water District.

**Carmel Mountain Road Life Sciences Project** (2020). Archaeologist for a proposed commercial development project in the Torrey Hills Community Plan area.

## Education

Master of Arts, Anthropology, San Diego State University, 2018

Bachelor of Arts, Biology and Anthropology, San Diego State University, 2015

## Registrations/ Certifications

Registered Professional Archaeologist #17338

## Professional Affiliations

Society for Historical Archaeology

Society for California Archaeology

Responsibilities included performing background and archival research and producing an archaeological resources report. Work performed for Allen Matkins Leck Gabme Mallory & Natsis, LLP.

**Draft EIS/Overseas EIS - Disposal of Decommissioned, Defueled Ex-Enterprise (CVN 65) & Associated Naval Reactor Plants** (2020 - ). Archaeologist for the Draft EIS for the disposal of the Navy ex-Enterprise. Responsible for background research and citation management and assisted with document preparation. Work performed for the United States Navy as a subconsultant to ManTech.

**Eastlake Village Park** (2020). Archaeologist for a telecommunication project in the community of Eastlake in the City of Chula Vista. Conducted cultural resource monitoring for the drilling of a cassion hole. Work performed for Terracon.

**General Coatings** (2020). Archaeologist for a due diligence project for the possible future expansion of the General Coatings property. Conducted background research, which included analyzing a records search and viewing historic maps and aerial photographs of the project area. Additional responsibilities included performing a field survey of the project area and producing a cultural resources due diligence report. Work performed for General Coatings.

**Lake Rancho Viejo Environmental Consulting** (2020). Archaeologist for a cultural resources survey for a proposed housing development in the community of Fallbrook in northern San Diego County. Conducted background research and report preparation. Work performed for Q Technology Direct LLC with County of San Diego as the lead agency.

**Mtn View Connector Pipeline - Cultural** (2020). Archaeologist for a waterline replacement project in the community of Alpine. Conducted cultural resource monitoring and prepared the final monitoring report. Work performed for Padre Dam Municipal Water District.

**Salt Bay Design District Specific Plan EIR** (2020). Archaeologist for a mixed-use development project, which proposes to include wholesale/retail shopping and light industrial uses. Participated in an archaeological testing program and produced artifact tables for report. Work performed for M & A Gabaee.

**Santa Ysabel Trail** (2020 - ). Staff Archaeologist for a proposed 3 mile hiking trail in the unincorporated community of Julian. Performed background research, participated in the cultural resource survey, and contributed to the cultural resources survey report. Work performed for the County of San Diego Parks and Recreation Department.

# Stacie Wilson, RPA

**Senior Archaeologist**

HELIX Environmental Planning

## Summary of Qualifications

Ms. Wilson has been professionally involved in cultural resources management for 15 years and has more than 17 years of unique experience in both archaeology and GIS. She has served as principal investigator on numerous cultural resources management projects, and regularly coordinates with local, state, and federal agencies and Native American tribal representatives. She is skilled in project management, archaeological inventories and excavation, and report documentation and has broad experience with utility, municipal, federal, renewable energy, and private development projects. Her years of experience also encompass an understanding of CEQA and NEPA compliance regulations. She is proficient at creating, organizing, and analyzing GIS data; technical skills include ArcGIS 10.4, Spatial Analyst, Geostatistical Analyst, and working with datasets in Microsoft Word and Excel. Ms. Wilson is detail-oriented and has strong organizational and coordination capabilities.

## Selected Project Experience

**Eastern Municipal Water District As-Needed Environmental Services** (2015 - 2019). Serving as Senior Archaeologist on several individual task orders for HELIX's as-needed environmental services agreement with EMWD, including Well 59 Wellhead Treatment Facilities (2018), Cactus II Feeder Transmission Pipeline (2017 – 2018), and Fox Tank Replacement (2017). Responsible for coordinating cultural resources studies including records searches, Sacred Lands File searches, Native American outreach, reviews of historic aerial photographs and maps, and pedestrian surveys. Authored cultural resources technical reports.

**Crescent Drive Sewer Improvements Project** (2018). Cultural Task Lead for a sewer improvements project in the City of Vista. The project proposes to conduct improvements to the sewer main and connecting sewer laterals within Crescent Drive. Duties included conducting a record search and a Sacred Lands File search; reviewing existing cultural resources information for the project site and immediate vicinity; coordinating a field visit; and preparing a constraints report. Work performed for KEH and Associates, Inc. with the City of Vista as the lead agency.

**Padre Dam Municipal Water District East County Advanced Water Purification Program** (2018). Senior Archaeologist for cultural resources inventory and assessment of approximately 10 miles of pipeline. The East County Advanced Water Purification project proposes to increase the region's supply of potable water. Duties included preparation of a cultural resources study, assisting with community outreach with regard to the historic resources, and working with the agencies and interested parties to develop appropriate measures to avoid or minimize impacts. Work performed for Kennedy/Jenks Consultants, Inc., with Padre Dam Municipal Water District as the lead agency and Helix Water District, the County of San Diego, and the City of El Cajon as participating agencies.

## Education

Master of Science, Applied Geographical Information Science, Northern Arizona University, 2008

Bachelor of Arts, Anthropology, University of California, San Diego, 2001

Bachelor of Science, Biological Psychology, University of California, San Diego, 2001

## Registrations/ Certifications

The Register of Professional Archaeologists #16436, 2008

Riverside County Approved Cultural Resources Consultant, 2017

## Professional Affiliations

Society for California Archaeology

**City of San Diego Water Group Job 939** (2018). Principal Investigator for the Water Group Job 939, located in the Sorrento Valley area of the City of San Diego. Conducted as part of an as-needed contract with the City of San Diego, Public Works Department, Project Implementation Division, the project proposes approximately 6,846 linear feet of water main replacement and installation. Duties included conducting background research, reviewing previous cultural resource surveys, and coordination of Native American and archaeological monitors.

**Alvarado 2nd Pipeline Extension** (2018 - 2019). Principal Investigator overseeing completion of cultural resource management services for the geotechnical investigations related to this approximately 8.5-mile pipeline project, which will include the extension of the existing Alvarado 2nd Pipeline along Friars Road between Interstate 805 and West Mission Bay Drive. Responsibilities included overseeing a record search and submitting a request for a Sacred Lands File search; reviewing environmental, geological, and existing cultural resources information for the project alignment; coordinating a field visit; and preparing a report that provided monitoring recommendations. Oversaw subsequent archaeological and Native American monitoring program. Work performed for Kennedy/Jenks Consultants, Inc., with the City of San Diego as the lead agency.

**City of San Diego Sewer Group 806** (2017 - 2018). Principal Investigator for the Sewer Group Job 806, located in the College Area and Mid City Kensington-Talmadge community planning areas in the City of San Diego. Conducted as part of an as-needed contract with the City of San Diego, Public Works Department, Project Implementation Division, the project proposes both the replacement and rehabilitation of existing sewer mains, including replacing-in-place approximately 2,158 linear feet of existing vitrified clay pipe sewer mains. Duties included conducting background research, reviewing previous cultural resource surveys, conducting a field survey with a Native American monitor, and the preparation of a cultural resources technical report.

**Quince Street Senior Housing Project** (2017). Principal Investigator for the demolition of an existing warehouse complex within a developed property in order to construct affordable housing for seniors. Managed reconnaissance survey of the project area, which included photography of the built environment within the project site and documentation/evaluation of structures over 50 years of age. Assisted with cultural resources technical report preparation. Work performed for San Diego InterFaith Housing Foundation, with the City of Escondido as the lead agency.

**City of San Diego Long-term Mitigation Strategy Development** (2016). Principal Investigator for a cultural resources study of the Kearny Mesa East Mitigation Site, a 7.57-acre City of San Diego owned parcel located in Murphy Canyon. Conducted as part of an as-needed contract with the City of San Diego, Transportation & Storm Water Department, the project evaluated the potential mitigation opportunities for the parcel. Duties included conducting background research, a field survey and recording of cultural resources, Native American outreach and coordination, and report preparation. Work performed for the City of San Diego.