
Archaeological Resources Survey Report for the Nirvana Business Park Project, 821 Main Street, Chula Vista, San Diego County, California

Submitted to:

City of Chula Vista

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EXECUTIVE SUMMARY

This report provides the results of a Phase I archaeological inventory completed by Red Tail Environmental (Red Tail) for the proposed Nirvana Business Park Project (Project), located at 821 Main Street, Chula Vista, California, 91911. The Project proposes to construct an industrial complex with three two-story buildings, one three-story storage facility, and associated parking, within an area totaling approximately 13.31 acres. The Area of Potential Effects (APE) encompasses APNs 644-050-13-00, 644-050-14-00, a portion of 644-050-08-00, and an off-site easement in the City of Chula Vista, California.

This study was performed in compliance with the California Environmental Quality Act (CEQA), and the City's Historic Preservation Program and Historic Preservation Ordinance, Title 21 of the Chula Vista Municipal Code. This study was also performed in compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966. The City of Chula Vista (City) is the lead agency.

The aforementioned study was conducted in order to identify all archaeological and historical resources within the APE that could be adversely affected by project-related soil disturbing operations. The study consisted of a Records Search at the South Coastal Information Center (SCIC) and covered a one-mile radius off the APE's approximate centroid. In addition to the said Records Search, a pedestrian survey of the APE (conducted by an archaeologist and a Native American Monitor), a review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC), archaeological and Native American monitoring during geotechnical exploration activities, and an evaluation of resources for eligibility into the National Register of Historical Places (NRHP) were conducted as well. This report includes the results of the study, as well as a brief historic background sketch for the area, an evaluation of cultural resources within the APE, and a finding of effects for the Project.

The record search of the SLF held by the NAHC was negative. Information request letters were sent to 20 Native American individuals and organizations and to date one response was received from the Jamul Indian Village of California.

The record search identified four archaeological resources existing either wholly or partially within the Project area. The resources included: P-37-011145/CA-SDI-11145, a prehistoric artifact scatter; P-37-011146/CA-SDI-11146, a prehistoric artifact scatter; P-37-030568, prehistoric isolate; and P-37-030569/CA-SDI-19432, a prehistoric artifact scatter.

The archaeological survey of the APE relocated two of the previously recorded resources (P-37-011145/CA-SDI-11145 and P-37-030569/CA-SDI-19432) within the Project area, but it failed to relocate resources P-37-011146/CA-SDI-11146 and P-37-030568. The survey also resulted in the identification of one new resource, 821MS-I-2, which consists of a prehistoric lithic isolate. An additional historic isolate, 821MS-I-3, was identified during archaeological and Native American monitoring of the geotechnical exploration activities.

Three of the resources had been previously evaluated for significance. P-37-011145/CA-SDI-11145 was originally recorded in 1989 and relocated, updated, and evaluated for significance by Affinis in 2009 (Robbins-Wade 2009). The resource was recommended as not significant under CEQA due to the disturbed nature of the site and the lack of research potential. P-37-030569/CA-SDI-19432 was originally recorded by Affinis in 2009 as a large lithic scatter occupying a south-facing terrace and was recommended to be not significant under CEQA due to the scarcity of cultural material, the disturbed nature of the site, and the lack of potential for intact subsurface deposits. P-37-030568, a lithic isolate originally recorded by Affinis in 2009, was recommended as not significant under CEQA and is not

eligible for the California Register of Historical Resources (CRHR) due to being an isolated find. Overall site conditions in each of these three resources have not changed since 2009, and Red Tail concurs with the previous evaluation as all three resources appear not significant under CEQA due to lack of research potential, lack of subsurface depths, and moderate amounts of ongoing site disturbances. The three resources are also not eligible for listing on the NRHP as each does not meet the significance thresholds for Criteria A, B, C, or D, and do not exhibit integrity.

P-37-011146/CA-SDI-11146 was originally recorded in 1989 as a moderate scatter of prehistoric tools and lithic production waste. The site was not previously evaluated for significance and the site record has not been updated since 1989. During the pedestrian survey the site was not relocated. P-37-011146/CA-SDI-11146 has not been evaluated for significance under CEQA or the Chula Vista Register of Historical Resources and has not had its eligibility for the CRHR or the NRHP determined.

The survey and monitoring program also resulted in the identification of two new isolates, 821MS-I-2 and 821MS-I-3, a lithic and historic isolate, respectively. As isolates, they are considered not significant under CEQA and not eligible for the CRHR or the Chula Vista Register of Historical Resources, and are also considered not significant under Section 106 and not eligible for the NRHP as they do not meet significance thresholds under Criteria A, B, C, or D.

No historic properties are present within the APE and the Project implementation will not cause any effect. However, due to the presence of archaeological resources within the APE, the presence of numerous cultural resources within one-mile radius off the APE, the early historic presence within the vicinity of the APE, and the possibility of buried cultural resources within the alluvial Otay River Valley (Gallegos *et al.* 1998:2-23) construction monitoring by an archaeologist and Native American monitor is recommended for the initial ground disturbance for the Project.

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

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Submitted to: City of Chula Vista

Report Date: September 2021

Report Title: Archaeological Resources Survey Report for the Nirvana Business Park Project, 821 Main Street, Chula Vista, San Diego County, California

Type of Study: Phase I Archaeological Inventory

New Sites: 821MS-I-2 and 821MS-I-3

Updated Sites: P-37-011145/CA-SDI-11145, P-37-011146/CA-SDI-11146, P-37-030568, P-37-030569/CA-SDI-19432

USGS Quad: *Imperial Beach, California* 7.5-minute Topographic Map

Area: approximately 13.31 acres

Keywords: *Imperial Beach, California* 7.5-minute Topographic Map, City of Chula Vista, prehistoric, lithic scatter, volcanic, P-37-011145/CA-SDI-11145, P-37-011146/CA-SDI-11146, P-37-030568, P-37-030569/CA-SDI-19432, 821MS-I-2, 821MS-I-3

1. INTRODUCTION

PURPOSE OF STUDY

This Phase I archaeological inventory was conducted in compliance with the California Environmental Quality Act (CEQA), which requires that before approving discretionary projects the lead agency must identify and examine the significant adverse environmental effects which may result from those projects. A project that may cause a substantial adverse change in the significance of a historical resource is one that may have a significant effect on the environment (Sections 15064.5(b) and 21084). A substantial adverse change is defined as demolition, destruction, relocation, or alteration activities which would impair historical significance (Sections 15064.5(b)(1) and 5020.1). Any historical resources listed in, or eligible to be listed in, the California Register of Historical Resources (CRHR), including archaeological resources, are considered to be historically or culturally significant. Resources which are listed in a local historic register or deemed significant in a historical resource survey as provided under Section 5024.1(g) are presumed historically or culturally significant unless "the preponderance of evidence" demonstrates they are not. Finally, a resource that is not listed in, or determined to be eligible for listing in, the CRHR, not included in a local register of historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant, pursuant to Section 21084.1.

The City of Chula Vista (City) is the lead agency for the Project and the archaeological inventory was also conducted in compliance with the City's Historic Preservation Program (Chula Vista 2011), and the City's Historic Preservation Ordinance, Title 21 of the Chula Vista Municipal Code.

The study was also conducted in compliance with NEPA and Section 106 of the NHPA in order to identify cultural resources that have the potential to be adversely affected by the Project.

PROJECT DESCRIPTION

The Nirvana Business Park Project (Project) would develop three parcels that occur in a Development Area as described by the Chula Vista MSCP. The project is the development of three vacant parcels, Parcels 1 and 2 of Parcel Map 21587 (APNs 644-050-13 and 644-050-14, respectively) and a portion of Lot 2, Section 20, Township 18 South, Range 1 West, San Bernardino Meridian (APN 644-050-08). A proposed lot line adjustment (LLA21-0007) will adjust the common property line between Parcel 2 and a portion of Lot 2. Once the lot line adjustment is complete, the resultant parcels Parcel 1 of PM 21587 and Parcel A of Adjustment Plat LLA21-0007 will have a combined net area of 13.31 acres. The project's two parcels will then be subdivided into four (4) parcels under TPM21-0003 and the subsequent parcel map. The four parcels' public right-of-way is provided via a private access easement out to Nirvana Avenue.

Development of the site will include four buildings on the 13.31-acre portion of the site. Off-site grading of 0.37-acre north of the project is needed and will consist of the project driveway and additional area. Another 0.21-acre easterly of the project site is required to rebuild an existing slope for stabilization. As well, 0.22 acres of City right-of-way along the Main Street frontage (between the sidewalk and the property line) will be graded. Lastly, 0.18 acres west of the project site will be used for off-site grading to eliminate low points and high points along the proposed retaining wall adjacent to the existing property line. This off-site grading will enable positive drainage in a concrete brow ditch along the base of the wall to flow via gravity out toward Main Street instead of relying on storm drain inlets to collect water at the base of the proposed retaining wall. Therefore, a total of 14.44 acres will be graded for the project. Also of note is the need to upgrade the two rip-rap energy dissipators on the south side of Main Street.

If authorization is granted from the property owner, then during the grading operations of the project, approximately 25,000 cubic yards of project soil will be stocked piled at any given time on the property to the north of the subject site at 850 Energy Way (APN 644-182-10) via a temporary access between the two properties.

Off-site trenching activities will occur in Nirvana Avenue for sewer and water laterals and in Main Street for Fire laterals and storm drain connections.

The project includes the construction of four buildings as follows:

- Building 1 – a 585,946 square-foot warehouse, 36-feet high, single-story with mezzanine
- Building 2 – a 40,660 square-foot warehouse, 36-feet high, single-story with mezzanine
- Building 3 – a 140,802 square-foot, 40.5-feet high, 3-story self-storage building
- Building 4 – a 44,090 warehouse, 36-feet high, single-story with mezzanine

AREA OF POTENTIAL EFFECTS

A Project APE is “the geographic area or areas within which an undertaking may cause changes to the cultural resources, as well as in the character or use of historic properties, if any such properties exist” (36 Code of Federal Regulations [CFR] 800.2(c)). The Project’s APE was delineated to ensure the identification of significant cultural resources and historic properties that may be affected by the Project and that are listed in or eligible for inclusion in the NRHP. The Project’s APE encompasses the maximum limits that will be altered by the Project.

The Project APE totals 13.31 acres in size and encompasses APNs 644-050-13-00, 644-050-14-00, an approximately 3-acre portion of 644-050-08-00, and an off-site easement. The Project is bounded by Main Street to the south, undeveloped land to the east and developed land to the north and west. Access to the Project area is along Nirvana Avenue on the northwest corner of the Project area. The Project is shown on the *Imperial Beach, California* USGS 7.5-minute quadrangle within Township 18 South, Range 1 West, Section 20 (Figures 1-3).

PROJECT PERSONNEL

Red Tail Principal Investigator Shelby Castells, M.A., RPA served as the primary author of this report and managed the study. Red Tail Senior Archaeologist Spencer Bietz conducted the archaeological field survey, contributed to the report, and provided cartographic figures. Native American monitoring for the archaeological surveys was provided by Corel Taylor of Red Tail, under the direction of Clint Linton. Archaeological monitoring of the geotechnical exploration, on the other hand, was conducted by Spencer Bietz and Thomas Stanley, and the Native American monitoring was conducted by Corel Taylor and Alisa Contreras.

REGULATORY FRAMEWORK

National Historic Preservation Act

Section 106 of the NHPA is the primary directive for cultural resources preservation. Section 106 requires federal agencies with either direct or indirect jurisdiction over a proposed action to take into account the effect of their actions on historic properties. Section 106, in addition, also requires federal agencies to assume responsibility for the preservation of historic properties under their jurisdiction or control.

Regulations revised in 1997 (36 CFR Part 800 et. seq.) set forth procedures to be followed for determining eligibility of properties for the NRHP. The eligibility criteria and process are used by federal,

state, and local agencies in the evaluation of the significance of cultural resources. Recent revisions to Section 106 in 1999 emphasized the importance of Native American consultation.

36 CFR §800.16(I)(1) states:

Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. In addition, the term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the NRHP criteria.

Section 106 of the NHPA also requires federal agencies, along with entities they fund or provide approval authority for, to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on undertakings on historic properties, following 36 CFR Part 800. To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (including archaeological, historical, and architectural properties) must be inventoried and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead federal agency, others can undertake the work necessary to comply with Section 106.

Pursuant to the NHPA, NRHP eligibility criteria have become the standard for evaluating significance. As published in the Federal Register (November 16, 1981, 46 (220):50189), they are stated as:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- (a) Are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) Are associated with the lives of persons significant in our past; or
- (c) Embody 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; or
- (d) Have yielded or may be likely to yield, information important in prehistory or history [36 CFR 60.4].

In addition to meeting at least one of the eligibility criteria, a property must also retain sufficient integrity to convey its significance. Integrity is a quality that relates to the historic authenticity of a property. Again, the NRHP defines seven elements of integrity: location, design, setting, workmanship, materials, feeling, and association. Location and setting relate to the relationship of a property to its environment. Design, materials, and workmanship relate to construction methods and stylistic details. Feeling and association relate to the ability of the property to convey a sense of historical time and place. A significant loss of integrity will render a property ineligible for the NRHP, regardless of its level of historical significance. Evaluation of a property to the NRHP requires a consideration of both historical significance as defined by the evaluation criteria and integrity. The criteria under which a property is significant are relevant to the issue of integrity, because the property must retain sufficient integrity of those elements of integrity relevant to the qualifying criteria. For example, for an engineering structure that qualifies for listing under Criterion C, integrity of design, workmanship, and materials are paramount. Generally,

prehistoric cultural resources and historical archaeology sites are evaluated for significance under Criterion D, based on their research potential.

CEQA and California Register of Historical Resources

CEQA requires that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. The act defines historical resources as “any object, building, structure, site, area, or place that is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (Division I, Public Resources Code, Section 5021.1[b]).

Lead agencies have a responsibility to evaluate historical resources against the California Register of Historical Resources (CRHR) criteria prior to making a finding as to a proposed project’s impacts to historical resources. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired. While demolition and destruction are obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of a historical resource that convey its historical significance (i.e., its character-defining features) is considered to materially impair the resource’s significance. The CRHR is used in the consideration of historical resources relative to significance for purposes of CEQA. The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP and some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory, may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852), which consist of the following:

- 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; or
- Criteria 2: it is associated with the lives of persons important to local, California, or national history; or
- Criteria 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; or
- Criteria 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.

City of Chula Vista Historic Preservation Ordinance

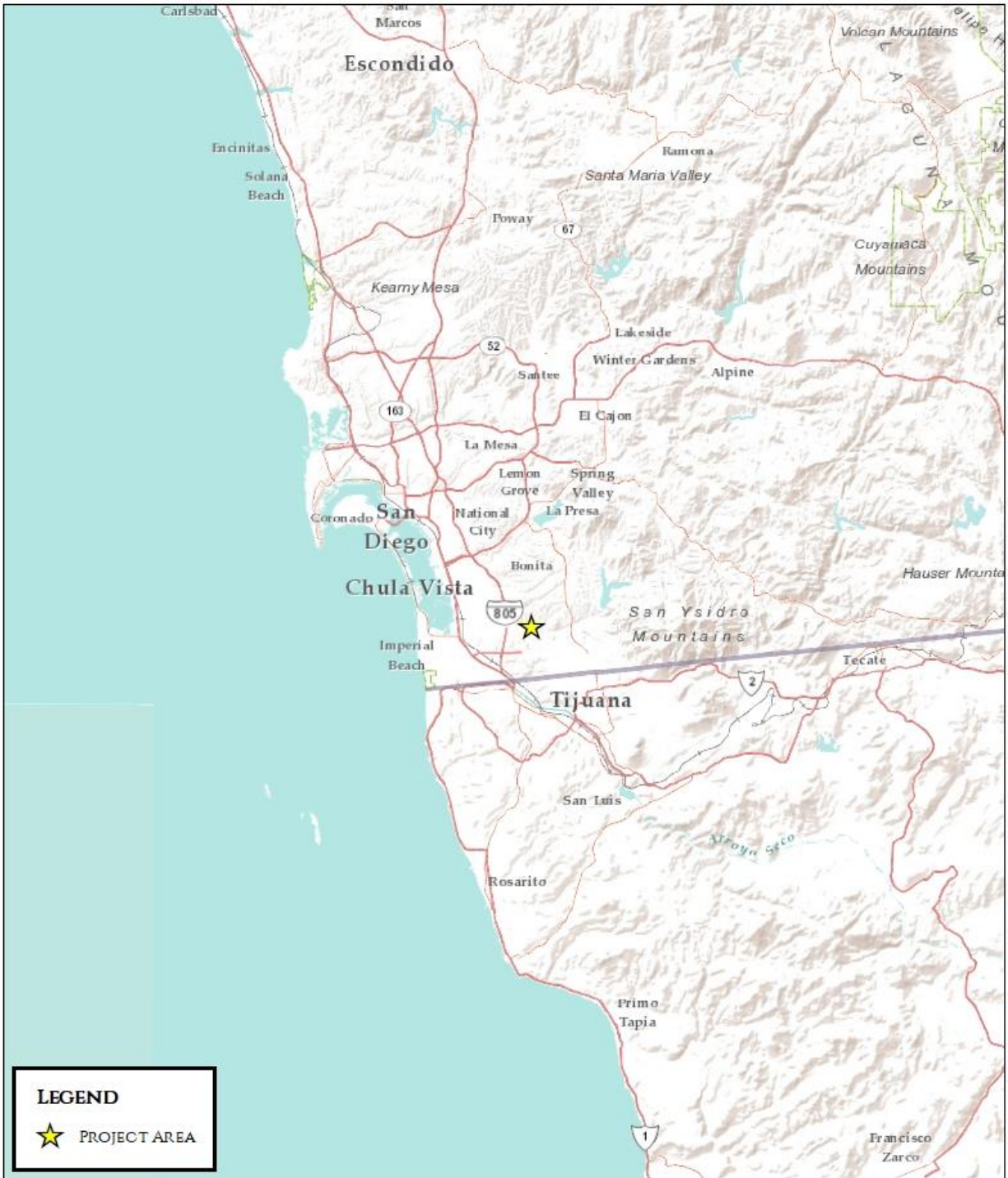
Under Title 21 of the Chula Vista Municipal Code (Section 21.04.100) and the City’s Historic Preservation Program (Chula Vista 2011) a Historic Resource includes buildings, structures, sites, signs, and other resources. Historical Resources may be designated on the Chula Vista Register of Historical Resources that are:

- a) At least 45 years old; and

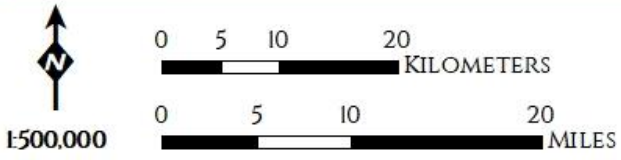
b) Have historical integrity and are determined to have historical significance by meeting at least one of the following criteria:

- 1) Criterion 1: It is associated with an event that is important to prehistory or history on a national, state, regional, or local level.
- 2) Criterion 2: It is associated with a person or persons that have made significant contributions to prehistory or history on a national, state or local level.
- 3) Criterion 3: It embodies distinctive characteristics of a style, type, period, or method of construction, or represents the work of a master or important, creative individual, and/or possess high artistic values.
- 4) Criterion 4: It is an outstanding example of a planned landscape or represents the work of a master landscape architect, horticulturalist, or landscape designer, or has potential to provide important information to the further study of landscape architecture or history.
- 5) Criterion 5: It has yielded or may be likely to yield information important in prehistory or the history of Chula Vista, the state, region, or nation.

In general, the City's Historic Preservation Ordinance builds on federal and state cultural resources laws and guidelines in an attempt to streamline the process of considering impacts to cultural resources within the City's jurisdiction, while maintaining that some resources not significant under federal or state law may be considered historical under the City's guidelines. Essentially, the City's Historic Preservation Ordinance guidelines localize cultural resources laws providing local perspective on significance criteria. In order to apply the criteria and APE of the project must be defined for both direct impacts and indirect impacts. Indirect impacts can include increased public access to an archaeological site, or visual impairment of a historically significant viewshed related to a historic building or structure.



LEGEND
 ★ PROJECT AREA



Source: ESRI (2021)



Figure 1. Project Vicinity Map.

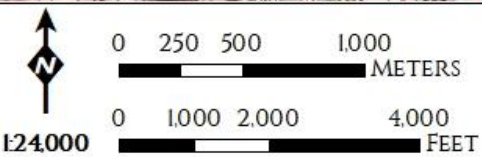
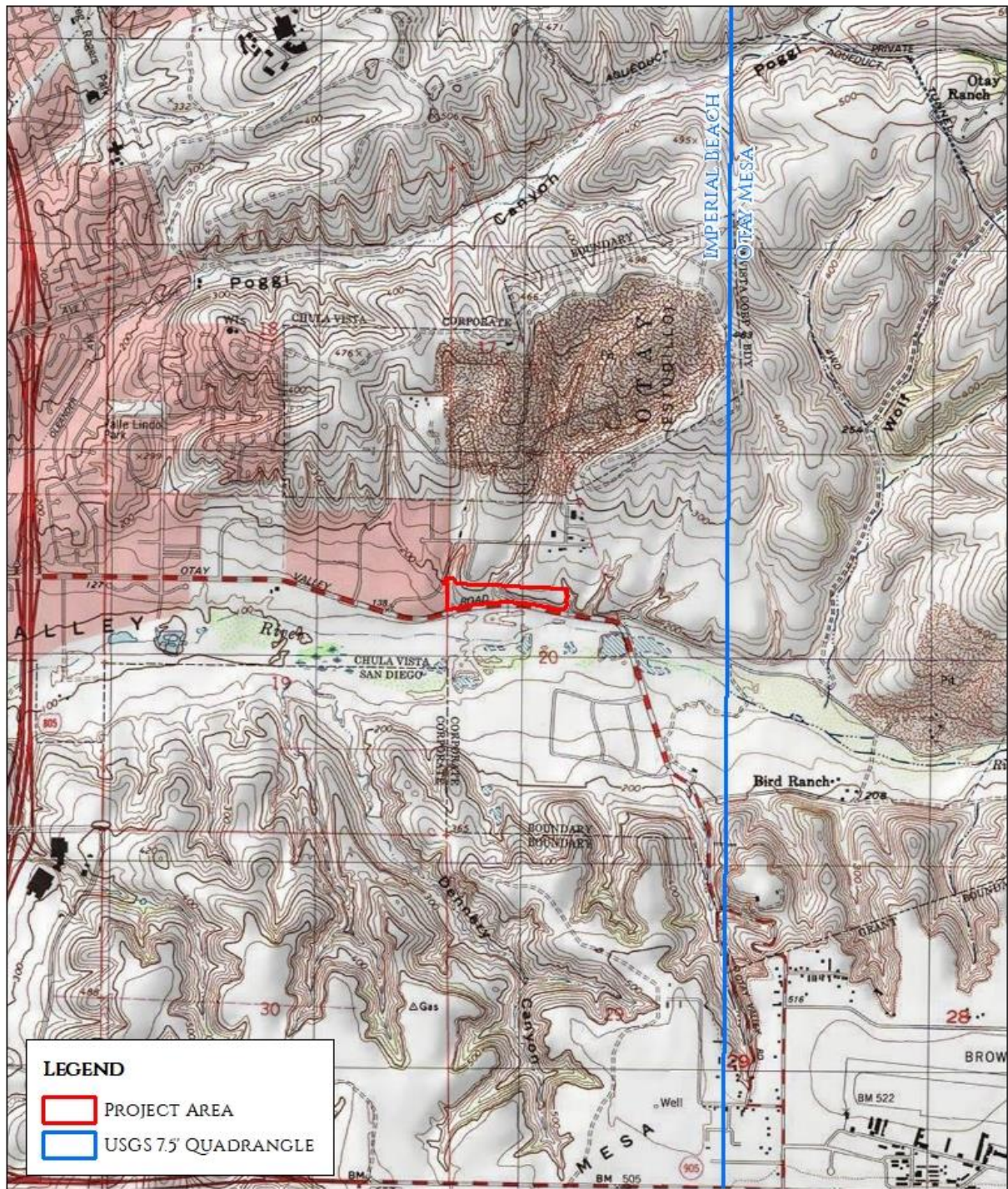


Figure 2. Project Location Map shown on the USGS 7.5' *Imperial Beach, California* Quad Map.



Figure 3. Area of Potential Effects Map.

2. SETTING

CURRENT PHYSICAL SETTING

The APE is located within the Otay River Valley along the north bank of the Otay River. A seasonal drainage bisects the APE, running north-south, with a second seasonal drainage running north-south bordering the APE to the west. Elevation within the APE ranges from approximately 140 to 160 feet above mean sea level (amsl). The APE is currently vacant. Site surface vegetation consists of a mix of chaparral including buckwheat, sumac, and poison oak, cholla cactus, non-native eucalyptus trees along the northern perimeter, and non-native annual grasses and shrubs.

CULTURAL SETTING

The prehistoric and historic cultural setting for the vicinity of the APE is briefly outlined below.

Prehistoric Archaeology

Generally, archaeologists believe that human occupation within San Diego County began sometime after 20,000 years Before Present (B.P.), and likely prior to 11,200 B.C. (Fagan 2003, Gallegos 2017). Archaeologists have developed numerous chronologies and nomenclature for the archaeological record many of which conflict with each other. Most archaeologists divide the human occupation of San Diego County during the prehistoric period into three main occupation eras: the Terminal Pleistocene / Early Holocene Period; the Middle Holocene Period; and the Late Holocene Period. While archaeological studies have taken place in San Diego County for over 100 years, portions of San Diego County have few well dated deposits as a result of development and the destruction of sites prior to the implementation of environmental laws and systematic archaeological studies (Hale 2009).

No definitive evidence of human occupation of San Diego County is available prior to approximately 12,000 B.C. However, a possible early archaeological site was identified in San Diego County, containing *in situ* hammerstones, a stone anvil, and fragmentary remains of spiral fractured fossilized mastodon bone and molar fragments, showing evidence of percussion, known as the Cerutti Mastodon site (Holen et al. 2017). The site was dated to 130.7 ± 9.4 thousand years ago, and if believed to be an archaeological site is the oldest archaeological site in North America. However, it is highly disputed if the site was formed by the genus *Homo* or is naturally occurring (Holen et al. 2017).

The earliest known archaeological sites near San Diego County with reliable dates are from the Channel Islands. The Arlington Springs site on Santa Rosa Island dates to 13,300 years ago, and the Daisy Cave site on San Miguel Island dates to 12,300-11,120 years ago (Lightfoot and Parrish 2009). Over 25 shell midden sites that date to between 12,000 and 8,000 years ago have been recorded on the Channel Islands. On the mainland a site near San Luis Obispo dates to 10,300-9,650 years ago and several sites on Cedros Island in Baja California date to 12,000 years ago (Lightfoot and Parrish 2009).

Previously, archaeologists believed that people came to North and South America through the Bering Land Bridge, however recent studies have identified that this ice-free corridor was blocked from 21,000 to possibly as late as 11,000 B.C. (Erlandson et al. 2007). Meanwhile, the coastal areas of the Pacific Northwest were deglaciated by approximately 14,000 B.C. Travel along the Pacific Coast in boats would have been possible during this period, and widespread kelp forest could have created a “kelp highway” with sufficient resources to sustain people entering North America during this time period (Erlandson et al. 2007, Gallegos 2017, Masters and Aiello 2007). Erlandson et al. (2007) argue that “it seems most likely that the peopling of the Americas included both coastal and interior migrations of peoples from

northeastern Asia and Beringia, with an earlier migration possibly following the northern Pacific coast” (56). However, Erlandson et al. also argues that no archaeological sites have been unequivocally dated to over 15,000 years ago in California or North American.

Terminal Pleistocene / Early Holocene Period (ca. 12,000-6,000 B.C.), Paleo-Indian, San Dieguito

Paleo-Indian sites have been identified across most of North America, often referred to as the Clovis Complex. The Clovis Complex is defined by the use of large fluted projectile points and other large bifacial stone tools. Three isolated fluted points have been reported in San Diego County (Davis and Shutler 1969, Kline and Kline 2007, Rondeau et al. 2007). However, no fluted points have been found in San Diego County that are associated with radiocarbon dates or in association with Pleistocene fauna (Rondeau et al. 2007). Fluted points have been dated outside of California to 13,500 years before the present.

In San Diego County the Paleo-Indian period is generally termed San Dieguito. San Dieguito was defined by Warren (1968) at the C.W. Harris Site (SDI-149) and was characterized by leaf shaped and large stemmed projectile points, scrapers and other stone tools that were technologically similar to the Western Stemmed Point Tradition (WSPT), also called the Western Pluvial Lakes Tradition (WPLT). Archaeological evidence of the WSPT has been found across the western interior of North America with small regional variations (Gallegos 2017, Sutton 2016, Warren 1968). Radio carbon dates from the C.W. Harris Site (SDI-149) ranged from ca. 8,000 to 6,500 cal B.C. (Byrd and Raab 2007, Gallegos 2017). Outside of the isolated Clovis points found in San Diego County, this is one of the earliest evidences of human occupation in the County. While the earliest radiocarbon dates in San Diego County are ca. 10,000 to 11,000 years ago, Gallegos (2017) stresses that all San Diego County sites have problematic stratigraphy because of bioturbation or disturbances from modern uses. Ground stone use was infrequent in San Dieguito archaeological remains, leading to the belief that the San Dieguito were highly mobile groups and their subsistence practices focused on the hunting of large game.

It is unknown if the first people arrived in San Diego County via the sea or from the pluvial lakes within the Great Basin to the east. Gallegos reports that there are two locations that may be the earliest San Dieguito habitation areas if they arrived in San Diego by sea: the La Jolla Archaeological area, extending from La Jolla Bay to the University of California, San Diego Chancellor’s house, or at the Remington Hills Site (SDI-11079) near the coast of Otay Mesa, east of the Tijuana Lagoon (Gallegos 2017). Masters and Aiello argue that from approximately 10,800 to 9,400 B.C. the extensive kelp beds of the coast of southern California flourished and would have provided a resource rich environment that would have made the coastal area a more attractive living location than the interior (2007). The estuaries off the coast of San Diego were productive with resources such as fish nurseries, shellfish, shorebird and marine mammals (Masters and Aiello 2007).

In addition, the Windsong Shores Site, SDI-10965/W-131, is representative of the San Dieguito Period, with artifacts similar to the WSPT, and was occupied ca. 9930 to 9580 years ago. However, these San Dieguito archaeological sites, in addition to artifacts similar to the WSPT, also contain artifacts which show a diet of shellfish, fish, birds, small to large mammals, and plant foods. Traditionally, archaeological research on Paleo-Indians has focused on the subsistence strategy of large game hunting of Pleistocene megafauna, which was then hunted to extinction. Subsequently Paleo-Indian peoples then focused on different subsistence strategies (Erlandson et al. 2007). More recent studies along the Southern California coast have focused on the diversity of subsistence strategies during this period, acknowledging the use of smaller animals and plant foods as staples, with limited evidence for big game hunting (Byrd and Raab 2007, Erlandson et al. 2007). There is little specific information from San Diego County archaeological sites for subsistence practices from this time period, besides the sites listed above.

However, in the Daisy Cave archaeological site, only 200 miles to the north, one of the largest early Holocene archaeological deposits that has been excavated identified over 18 types of fish, multiple shellfish, marine mammals, and birds remains, showing that people relied on a wide assortment of marine resources as early as 8000 B.C., rather than subsisting on large mammal hunting (Erlandson et al. 2007). In addition, archaeological research across Southern California has shown the use of shellfish, marine mammals, and fish declined proportionately with distance from the coast. Less is known about plant use in interior sites from 8000 to 6500 B.C., besides the fact that an increase of milling tools is present suggesting that plant resources were heavily relied upon during this early period (Erlandson et al. 2007). Several sites in southwestern California from which spire removed *Olivella* beads have been recovered and dated to 9000 to 7000 B.C., which potentially indicating a trade network between the coast and the interior people or the movement of people between the two very different environments (Erlandson et al. 2007). Byrd and Raab argue that an environmental change from 10,000 to 8,000 cal. B.C. caused warming and drying conditions which shrunk the interior lakes and streams in Southern California's deserts and spurred the change from a reliance on large game hunting to a focus on a variety of subsistence strategies (2007).

There is a large debate between the relationship of the San Dieguito and the La Jolla Complex peoples in San Diego County, and whether they represent either distinct cultural changes or represent tool kits specific to the environment. The La Jolla Complex has been defined as the archaeological remains of the people inhabiting San Diego County during the Middle Holocene, discussed below. It has a focus on milling stone technology, rough percussion-flaked stone tools and a reliance on a variety of marine, plant, and small terrestrial resources (Hale 2009, Wallace 1955, Warren 1968). Sites which date to the Early Holocene in San Diego County do contain some milling tools, but at lower levels than the La Jolla period sites (Gallegos, 2017). The lowest levels of the C.W. Harris Site (SDI-149), however, have been identified as a Paleo-Indian Period occupation with a coastal adaptation. The artifacts are primarily bifaces and scrapers without the ground stone artifacts associated with milling identified in other early sites (Gallegos 2017:21). The Remington Hills site has four of the earliest radiocarbon dates in San Diego County, but contains cobble tools as well as milling tools, suggesting a dependence on coastal and lagoon resources rather than big game hunting (Gallegos 2017). Gallegos also stresses that in choice locations in San Diego County, such as Tijuana Lagoon surrounding Otay Mesa and around La Jolla Bay, the archaeological record shows a continuous habitation through the Holocene with little evidence for cultural change until the Late Prehistoric Period (Gallegos 2017). Gallegos reiterates that development and bioturbation have resulted in a lack of stratigraphy in these areas, which may have obscured the presence of a traditional Paleo-Indian occupation, if one had been present.

Middle/Late Holocene Period (ca. 6000 B.C.-A.D. 500 - 800), Archaic Period, La Jolla Complex, Millingstone Horizon

The Millingstone Horizon, also known as the La Jolla Complex or the Archaic Period in San Diego County, is defined through the presence of specialized tools that focused on collection and processing of small plant seeds and the hunting of a variety of medium and small game animals. These specialized tools also promoted a reliance on marine resources along the coast (Byrd and Raab 2007, Hale 2009, Rogers 1945, Warren 1968). While early milling stone assemblages show that by 9,000 years ago milling tools were in use and that seeds and nuts must have been a dominant food source (Lightfoot and Parrish 2009), the Millingstone Horizon is generally attributed to the Middle to Late Holocene Period and has been identified across much of central and southern California by ca. 6000 to 5000 cal B.C. The La Jolla Complex has been identified as remaining relatively stable for thousands of years within San Diego County with very little technological changes identified within the archaeological record (Byrd and Raab 2007, Hale 2009).

The archaeological record from this period are often found near the coastal lagoons, however inland sites are also identified during the lengthy Middle Holocene Period. Coastal La Jolla Complex sites contain a large number of shellfish remains. Stone tools associated with this period are often described as “crude” or “expedient” and contain choppers, scrappers, handstone, milling slabs, basin metates, discoidals, and Pinto and Elko projectile points. Flexed burials are also associated with the La Jolla Complex (Moriarty 1966, Gallegos 2017, Hale 2009). A large number of small sandstone mortars or bowls have been recovered from archaeological sites in the La Jolla area, dated to the La Jolla Complex, as well as manos metates, pestles, net weights, scrapers and projectile points (Gallegos 2017).

Interior sites from this period contain similar archaeological collections but with a focus on milling tools, lithic choppers, and scrapers. Conversely, these sites focus less upon the use of shellfish and other marine resources. Unfortunately, there is little archaeological evidence that defines group size and habitation structure functionality within interior San Diego County sites during the middle Holocene.

During this lengthy period little technological changes are identified within the archaeological record until approximately 5,000 years ago when there was an increase in sedimentation along the coast. The increased sedimentation transformed the estuaries into shallow wetlands, closed several of the lagoons, transformed the coastal areas into sand and mudflats, and limited the kelp forests, causing the coastal region to have a lower level of subsistence resources than in the past (Byrd and Raab 2007, Gallegos 2007, Masters and Aiello 2007). Pismo Clams are used to identify the development of sand beaches as they require wide fine-grained sand beaches that are not lost in winter storms (Masters and Aiello 2007). While the sedimentation of the coastal lagoons and estuaries was a lengthy process, the Pismo Clam data suggests the San Diego County coast was the latest area within Southern California to show lagoon closure and the creation of sand beaches, taking place approximately 5,000 years ago, around 3,000 B.C., (Masters and Aiello 2007). Gallegos theorizes that local populations adapted to the changing environmental conditions during this time by altering their settlement patterns to increase their use of plant and terrestrial animal use, which is identified in the archaeological record through an increase in habitation areas near oak and grassland resources and away from the coastal zone (Gallegos 2017). Gallegos shows that this is supported in the archaeological record by a near absence of human occupation at archaeological sites at Agua Hedionda, Baticuitos, San Elijo and San Dieguito lagoons ca. 3500-1580 B.P., with evidence that these lagoons opened again between 1580 and 1000 BP. However, Peñasquitos Lagoon, Tijuana Lagoon, San Diego Bay, and La Jolla Bay did not close and show continuous prehistoric occupation. Gallegos also argues that several of the coastal sites in the La Jolla area, which were located on the mesa tops, appear to have been abandoned ca. 5,000 to 3,000 years ago as the rocky shore shellfish population diminished (2017).

Past archaeological studies have argued that as the coastal estuaries became less productive for shellfish and other food sources, there was a depopulation along the coastal zone and settlements shifted to inland river valleys with an intensification of terrestrial game and plant resources (Byrd and Raab 2007). However, more recent archaeological work has identified Middle Holocene period sites remaining along the coastline along San Diego Bay, Mission Bay, Peñasquitos Lagoon, San Elijo Lagoon, Santa Margarita River drainage, Las Flores Creek, and San Mateo Creek, each displaying a continuous occupation from the Middle Holocene into the Late Holocene (Byrd and Raab 2007). Byrd and Raab argue that the larger drainage systems, such as San Elijo Lagoon, Las Flores Creek, and the Santa Margarita River Valley, likely maintained more productive estuaries that provided resources for a continuous occupation through the Middle to Late Holocene (Byrd and Raab 2007).

During the La Jolla Period there is less evidence for trade networks or migrations of people than in the Late Holocene. Shell bead types found in Southern California have been identified in the western and northern Great Basin from the Middle Holocene period. However, the extent and variety of these trade networks are unknown. There is an argument that during the Middle Holocene a migration of speakers of

Uto-Aztec languages migrated from the Great Basin into portions of Southern California, based on both archaeological and linguistic data, known as the Shoshonean Wedge, however additional research is needed (Byrd and Raab 2007). Overall, it is unknown if the people which created the La Jolla Complex archaeological sites are the same which created the San Dieguito. The archaeological records display differing subsistence strategies based on location and availability of resources, but additional information is needed to determine if they represent different cultural traditions due to population migration or from other external factors.

Besides the lessening of marine resources nearly 5,000 years ago, archaeologists have not come to a consensus on identifying different phases within the La Jolla Complex from either environmental or cultural changes. Overall, the archaeological record during this lengthy time period remains very similar (Hale 2009, Laylander 2018). Little is known about the transition from the La Jolla Complex to the Late Prehistoric Period. Laylander reports that there is a relative scarcity of dates within archaeological sites from 1300 B.C. to A.D. 200, but it is unknown if this represents a decline in population during the end of the Archaic Period or a bias in research data (Laylander 2014a).

Late Holocene Period (A.D. ca. 500 – 800 to 1769), Late Prehistoric Period

The Late Prehistoric Period is defined by the introduction of the bow and arrow after approximately A.D. 500 and the use of ceramics after approximately A.D. 1000. Also, during this time, mortuary practices changed from inhumations to cremations (Byrd and Raab 2007). It is unknown if the transition to the Late Prehistoric was caused by the adoption of new technologies by local San Diego populations during the La Jolla Complex or was representative of an influx of migrating populations into San Diego County (Laylander 2014a). Gallegos suggests that there may have been a long period of transition between what archaeologists identify as the La Jolla Period and the Late Prehistoric Period. He theorizes that the transition possibly occurred over a thousand years and that this transition is marked by an increase in the diversification of pressure flaked artifacts (Gallegos 2017:33).

The Late Holocene Period is identified as a continuation of the cultural practices that were present during the initial Euro-American exploration of San Diego County and that were recorded during the Ethno-Historic Period (Byrd and Raab 2007). During the Late Holocene Period, subsistence strategies focused on smaller and more plentiful resources such as the collection of small species of shellfish and seed plants and the hunting of smaller terrestrial animals and marine fish. Within the archaeological record there is an increase in the use of *Donax* shellfish, milling of plant seeds and nuts in inland locations, and the presence of numerous hearth features along the coast in Torrey Pines habitat which were likely used to process pine nuts. Desert zones also show an increase in the number of agave roasting pits during this time (Gallegos 2017).

Late Period Sites are plentiful across San Diego County and Gallegos argues that it is unknown if the Late Period sites in San Diego County are found frequently due to an increase in population during this period, especially in the inland areas, or due to the result of more recent sites not being buried by silt and sediment like Early and Middle Holocene sites, and thereby hidden from the archaeological record (Gallegos 2017). Many Late Prehistoric Period archaeological sites are located inland and contain bedrock milling features, thought to relate to acorn or other seed processing. People lived in larger coastal and lower valley villages that were located near permanent water sources. These villages acted as ceremonial and political centers and may have been occupied, at least partially, year-round. Smaller villages and residential areas were inhabited seasonally and were located near subsistence resources or were used for specialized activities, especially in inland areas (Byrd and Raab 2007, Lightfoot and Parrish 2009). This may have led to an increase in community size, longer stays at the major residences, and different societal organization. It is unknown if these changes in settlement patterns were caused by

environmental factors, resource usage, population growth, or other reasons. It is possible that some of these changes were responses to the Medieval Climatic Anomaly between A.D. 1100 and 1300, which caused a temperature increase and drought across the area (Gallegos 2017). Evidence of formal or permanent residential or communal structures has not been identified in the archaeological record. However, early archaeological studies in San Diego County by Rogers reported archaeological evidence of brush house structures, stone enclosures, sweatshouses, hearths, roasting pits, granary bases, bedrock milling features, pictographs, and petroglyphs (Gallegos 2017). Most of the rock art in San Diego County has been attributed to the Late Prehistoric Period (Gallegos 2017).

Archaeological remains have identified over four dozen plant types that were used in San Diego County during this period (Byrd and Raab 2007). Grass seeds had the highest frequencies of use, and there was less evidence for acorn exploitation. Hale (2009) reports that an intensive use of acorns in San Diego County did not take place until A.D. 1700 in conjunction with a greater use of ceramics at that time as well. The lower level of acorn usage in San Diego, visible in macro-botanical studies, is in contrast to a reliance on acorns as a major subsistence resource in other parts of Southern California (Byrd and Raab 2007, Hale 2009). Little is known about plant cultivation during the Late Holocene. There is evidence that a high number of plants that follow fires were used, but no major research projects have focused on proto-agriculture in San Diego County. Early Spanish accounts identify that the Native Americans were practicing cultivation of certain plants through burning and water diversion (Gallegos 2017).

Agriculture was in use along the Colorado River, east of San Diego County as early as A.D. 700 (Schaefer and Laylander 2007). However, little evidence of agricultural practices have been identified prehistorically in San Diego County. Within the Jacumba Valley region ethno-historic evidence recorded Kumeyaay constructing small dams and ditches diverting water to terraces for agriculture. However, Gifford reported this in 1930 as taking place in the first half of the nineteenth century, and it is unknown if it was practiced prior to the ethnohistoric period (Schaefer and Laylander 2007). Generally, while there is archaeological evidence for use of fire and the manipulation of grasses producing seeds, the level of agricultural practices predating the mission period in San Diego County is unknown (Schaefer and Laylander 2007).

Ceramic use entered the San Diego region during the Late Prehistoric Period, with a wide variety of Late Prehistoric dates for the introduction of ceramics in various parts of the County (Gallegos 2017, Hale 2009, Schaefer and Laylander 2007). Shackley reported that ceramics were not identified west of the mountains within San Diego County prior to A.D. 1300 (2004), but were present in the Lake Cahuilla region as early as A.D. 700 and that there were at least five ceramic types present in the desert by A.D. 1000 (2004). Meanwhile, Schaefer and Laylander theorized that ceramics were in use by A. D. 800 (2007) and Gallegos described a range of ceramic use in County (2017). There is a consensus that ceramic use spread from the eastern deserts to the center of San Diego County, into Kumeyaay territory, and then spread to northern San Diego County, into the Luiseño territory, after it was in use in the Kumeyaay territory. Ceramic use within the region, especially in the area inhabited by the Tipai, was very diverse and included large food and water storage ollas, parching trays, paint pots, ceramic anvils, canteens, scoops, ceramic dance rattles, and effigy vessels (Shackley 2004). Residual clays from sources west of the Peninsular Ranges produced a ceramic style described as Tizon Brownware, which is identifiable by the brown color and high inclusions of mica and angular granite. Clay sources east of the Peninsular ranges resulted in a lighter buff colored ceramics, with less inclusions, known as Buff Ware. While more common in the respective territories in which they were made, both types are found across the region with a much larger variety of ceramic types found within the Colorado Desert area in eastern San Diego County (Schaefer and Laylander 2007, Shackley 2004)

Archaeological evidence shows that during the Late Prehistoric Period there was a decline in usage of large mammals and a focus on smaller terrestrial mammals, especially rabbits (Christenson 1990). This subsistence practice is linked to the use of bow and arrows. The earliest arrow points, small projectile points, have been dated in San Diego County is between A.D. 490 to 650 and A.D. 690 (Hale 2009). By A.D. 1000 small projectile points have been identified across San Diego County in large numbers (Hale 2009). Two main projectile point types are found within the Late Prehistoric Period, the Cottonwood Triangular and the Desert Side-Notch, although some typologies have added a third category, Dos Cabezas Serrated (Laylander 2014b). Projectile points and lithic raw materials in general are consistent between the coastal and eastern areas of the County during the Late Prehistoric period, further implying that the western and eastern site of the territory were occupied by the same peoples seasonally.

Common lithic materials for formed tools, primarily projectile points include chert, jasper, agate, fossilized wood, rhyolite, wonderstone, quartz, obsidian, and Santiago Peak metavolcanics (Shackley 2004, Lightfoot and Parrish 2009). The wonderstone found in San Diego County derives from the Rainbow Rock source in the Colorado Desert (Schaefer and Laylander 2007). Dietler reports that for all lithic use during the Late Prehistoric Period, there was a preference for obsidian followed by cryptocrystalline silicates and then volcanic material. However, it was more advantageous to use material that was readily available rather than moving large amounts of preferred material far distances (Dietler 2000). In addition, Obsidian Butte obsidian is found across the County and the archaeological record suggests that access to the imported resource does not appear to have been controlled by one group (Dietler 2000).

Besides the creation of the small projectile points, which are ubiquitous in Late Prehistoric sites and were often carefully made, Schaefer and Laylander characterize lithic technology from this period as “expedient” (2007:252). In general, Schaefer and Laylander theorized that tools were created as needed from available materials and discarded after use. Gallegos (2017) also supports that lithic technologies were similar through time, with a focus on a direct response to the tools needed and the quality of local lithic material. The small projectile points in abundance during the Late Prehistoric Period could utilize poorer quality material than the large projectile points within the Early and Middle Holocene, as shown with the use of poor-quality Obsidian Butte obsidian and Piedra de Lumbre (PDL) chert. Generally, local volcanic material was used to make scraper tools, and local granitic and sandstone was used for groundstone tools (Gallegos 2017). Overall lithic technology, besides projectile points, tends to be stable over time across San Diego County, with the only clear chronologically identifiable lithic technology as the change in projectile point type. Groundstone tools show a greater effort of manufacture especially sandstone metates and other volcanic pestles and metates than flaked lithic tools (Gallegos 2017).

The Late Prehistoric Period additionally saw an increase in archaeological sites within portions of the Colorado Desert in eastern San Diego County. The Colorado Desert archaeological sites from this period have a range of radiocarbon dates from ca. A.D. 135 to 645 (Schaefer and Laylander 2007). Although located within Imperial County, Obsidian Butte was a major resource of lithic material in San Diego County during the Late Prehistoric Period. Obsidian Butte obsidian was available during periods of low water within Lake Cahuilla, and is found across Late Prehistoric archaeological sites within San Diego County during the last 1000 years, making up as much as 10 percent of some debitage assemblages in coastal and interior San Diego sites (Schaefer and Laylander 2007). The Colorado Desert was a major source of additional lithic material types found in San Diego County archaeological sites, including chert, chalcedony, basalt, rhyolite, quartz, and others.

After 1300 B.P. cremation was common practice across San Diego County and was practiced during the Ethno-Historic Period by both the Kumeyaay and the Luiseño (Gallegos 2017). It is thought that this

practice came from the north or east, and it is unknown if the transition from inhumations to cremations was adopted for religious or population reasons, or to control the spread of disease (Gallegos 2017).

Ethnographic Evidence

The Project lies within an area that was traditionally inhabited by the Kumeyaay, also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcalá). According to documentation in the ethnographic record, the Kumeyaay territory ranged from between Agua Hedionda Lagoon and Batiquitos Lagoon in the northwest, east through present day Escondido to the southern end of the Salton Sea, and then southeast through the Sonoran Desert into Mexico, with the southwestern boundary near Todos Santos Bay in Baja California, Mexico, south of Ensenada (Luomala 1978). Four to six dialects were present within the Kumeyaay territory, and northernmost groups referred to themselves as Ipai, while those in the southern portions of the Kumeyaay territory refer to themselves as the Kamiai, Kamiyahi, or Tipai (Kroeber 1976). Ipai and Tipai were thought to be two distinct dialects of Kumeyaay, which was part of the Yuman Family of the Hokan Stock (Lightfoot 2005). The Tipai were present south of the San Diego River Valley into Mexico (Gallegos 2017).

The Kumeyaay are a group of exogamous, patrilineal territorial bands who lived in semi-sedentary, politically autonomous villages or rancherías. Most rancherías were the seat of a clan, although it is thought that, aboriginally, some clans had more than one ranchería and some rancherías contained more than one clan (Bean and Shipek 1978; Luomala 1978). Each group or clan was associated with a restricted locality, probably their summer home, called cimul or gentes (Luomala 1978, Spier 1923, Shackley 2004). Often several lineages lived together in a residential base. The number of residents, both full time or seasonally, is unknown. A hereditary male chief was present in each clan (Luomala 1978). Members of each clan had communal rights to the land and resources within their boundaries. The woman in the marriage were generally from another settlement, and if both agreed the couple would move to the man's father's house or would build a house nearby. While generally marriage was patrilocal, it was not uncommon for a couple to live with the woman's family. Both the husband or wife could leave the marriage if they wished.

Houses were made of Tule or California bulrush (Waterman 1910). In the center of villages was a circular dance ground, made of hard packed soils, where dances took place. Songs and dances were often accompanied by a turtle or tortoise shell rattle, wooden flute or whistle, or a bull-roarer, which was swung around the head to make a loud roaring sound. Tobacco was smoked from a stone pipe and was used primarily in ceremonies. Tobacco smoking is also referenced in Kumeyaay mythology (Waterman 1910). Several sources indicate that large Kumeyaay villages or rancherías were located in river valleys and along the shoreline of coastal estuaries (Bean and Shipek 1978; Kroeber 1976). 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 1976; Luomala 1978). Subsistence cycles of the Kumeyaay were seasonal and generally focused on an east-west or coast-to-desert route based around the availability of vegetal foods, while hunting added a secondary food source to gathering practices (Luomala 1978, Shackley 2004). The Kumeyaay lived in the foothills on the edge of the Colorado Desert in the winter, in the mountains in the spring, and in the inland valleys in the summer, although all settlements of a clan would be occupied throughout the year (Spier 1923). A clan's seasonal movement would be based on several major staple plants and a small number of people would arrive at a campsite to begin gathering in the vicinity of the staple crop, soon to be followed by a larger number. Staples included acorns, mesquite, cactus fruits, seeds, and piñon nuts (Luomala 1978). Spier (1923) goes into detail regarding the use of acorns, which are collected in the fall, and then stored to dry until the following February when they are processed by cracking them open, crushing them using a mortar and pestle, and leaching them. Cacti and succulents were used in greater quantity in the eastern

side of the Kumeyaay territory, including agaves, Barrel Cactus, chollas, prickly pears, and yuccas (Luomala 1978).

Ethnographic and archaeological sources show the Kumeyaay using the following plant sources: California Buckwheat, Blue Dicks, Canary grasses, Chia, Native Barley, Pitseed Goosefoot, Tarweeds, wild cucumber, Blue Elderberry, California juniper berries, jojoba, Holly-leafed Cherry, Lemonadeberry, Manzanitas, Oaks, Pinyon, Yucca, Prickly-pears, and others (Lightfoot and Parrish 2009). Meat sources included rodents, lizards, some snakes, insects, larvae, deer, and birds. Most hunting was performed by men, either alone or in informal parties (Luomala 1978). Rabbit was the most abundant source of meat, and was often caught in communal drives using nets, fences, or fires along with rabbit sticks or bows and arrows (Lightfoot and Parrish 2009). Other food sources within coastal environments include abalones, clams, mussels, marine snails, caterpillars, nearshore fishes, and marine birds (Lightfoot and Parrish 2009, Luomala 1978). Some limited agriculture was present in the east, consisting of the planting of maize, beans, and melons. The flood plain agriculture practiced in the eastern river valleys, was used by the same groups that practiced hunting and gathering in other areas of the Kumeyaay territory (Lightfoot and Parrish 2009).

It is likely that the east/west canyons and tributaries were also often used by the Kumeyaay as travel corridors from interior coastal plain areas, to and from villages located along, and at the mouth of the rivers (Trafzer and Carrico 1992:53). These river valleys were often referred to by native speakers as oon-ya, meaning trail or road, describing one of the main routes linking the interior of San Diego with the coast.

Kumeyaay religion was a mixture of the newer Chungichnish religion and older religious practices and shared many similarities with the Luiseño (Kroeber 1976, Waterman 1910). It is believed that the Chungichnish religion formed in the north and spread south to the islands of Santa Catalina and San Clemente, then to the San Juan Capistrano region and finally into San Diego County through the Luiseño (DuBois 1908). The Chungichnish religion did not reach the southern boundary of the Kumeyaay territory until very late in time, possibly as late as the American period, and was practiced less in the southern Kumeyaay territory (Kroeber 1976). Kroeber reports that these religious practices were not called Chungichnish by the Kumeyaay, rather they were called awik meaning “western”. The cult centered around the boys’ imitation ceremony in which tolache, *Datura meteloides*, was drunk. Shamans were present and were the principal performers in Chungichnish ceremonies (Spier 1923). All who took part of the toloache initiation ceremony received a shaman’s powers, to a varying degree (DuBois 1908). Practicing the ceremonies of the cult protected the people from evils such as snake bites, and other misfortunes.

Waterman (1910) reported that the Kumeyaay believed that the souls of people have a continued existence after death and that the spirits of the dead go to the east, and the spirits of those that died are still associated with their places and objects. After death, the mourning ritual, Keruk, was performed in which the deceased were cremated, and the ashes were gathered and placed into a jar of pottery and either buried or placed between rocks. The body was burned so that the spirit would not return. The deceased’s property was collected to use in the Mourning ceremony, which took place on the year anniversary of the death. During the ceremony the deceased’s clothing and any other property was burned during a large gathering.

Other ceremonies and dances included the Feather Ceremony, the Whirling Dance (Tapakwrip), Image Burning Ceremony, the Eagle Ceremony which was a ceremony held on the anniversary of the death of the leader of the dances, the War Dance (Horloi), and the Fire Ceremony. East was the primary ceremonial direction, and ceremonial enclosures open to the east. East was also associated with the color white, south with green-blue, west with black, and north with red.

The Shaman was called the Kwasiyai, and was born a shaman. Waterman (1910) reported that disease was caused by deleterious substances in the body, which must be sucked out. The Shaman cured individuals by sucking blood or the diseased object through the mouth or through a pipe, kneading and pressing and blowing tobacco smoke on the diseased person.

Kroeber (1925) reports that the Kumeyaay origin story is similar to that of other Yuman speaking people in Southern California. Mankind and all things in the world are born from mother earth, with either the sky or night as the father. The divinity Wiyot is not the creator rather the first born. However, Waterman (2010) reports that there are two separate mythologies regarding creation and the divinity Wiyot. DuBois (1906) recorded that the Kumeyaay came from Wik-a-mee or Wikami, which was a mountain in the Colorado River region, that all the Indians came from that place and only had one language. Shackley (2004) recorded that Tom Lucas, an ethnographic source from Laguna Mountain, told a similar story that they came from “Spirit Mountain”. Additionally, the spirits of all the dead people return to the mountain to dance (Spier 1923). Shackley states that the Kumeyaay origin story parallels the archaeological evidence in that sometime after A.D. 1000, a large number of Kumeyaay ancestors moved into the present territory and that, archaeologically, the relationship between the Kumeyaay ancestors and the populations living at the coast is not entirely known. Tom Lucas reported that the Kwaaymii, the people living in the Laguna Mountains, were created by the Great Spirit, Amaayahaa, who put life into their bodies made of dirt, in their current location, and his people did not migrate from a different area (Cline 1984).

Waterman also reported that there was a wonderful being called Chaup, and that several myths center on Chaup. Chaup named many of the plants and animals and marked them, and he also first brought storms and disease into the world. Chaup’s physical manifestation is a ball of lightning or a shooting star (DuBois 1904; Miskwish 2016).

The Kumeyaay calendar was divided into six divisions, with 13 lunar months and four seasons. The calendar was used to know when to harvest plants and administer medicines. The Kumeyaay tracked the equinoxes and solstices, and both solar and lunar eclipses. The winter solstice was the most important date on the calendar, with the fall equinox being the start of the year as it also marked the acorn harvest (Miskwish 2016). Constellations were reflected in pictographs, petroglyphs, and cupules. Constellations played an important part of the puberty ceremonies, other constellations represent creation stories, and other stories, such as death relate to the solstice and equinox. Observatories could be rock cairns, rock alignments, or even a singly placed rock (Miskwish 2016).

Waterman (1910) also recorded that the Kumeyaay played several gambling games, some of which may have been introduced historically. One such game, peon, was still played during Waterman’s research and is thought to be an ancient practice. Peon was mentioned in the Chaup myth and is played ceremonially. Peon is played on two sides of four players each and involves guessing and reading the other player’s expressions.

Village Sites Along Otay River

Two ethnohistoric village sites have been recorded within the Otay River Valley, *La Punta* and *Otai* (Gallegos *et al.* 1998). *La Punta* has been identified on early maps as being located along the mouth of the Otay River Valley at San Diego Bay, and hearth features have been identified 1.2 m below the ground surface in alluvial deposits. *Otai* (also recorded as *Ueai*) has been recorded near the confluence of O’Neal Canyon and Otay River Valley, approximately 4 miles to the east of the APE. The village site was along the main access trail from the Otay River Valley to the Mission San Diego de Alcalá. It is believed that much of the remains of the village were destroyed in the 1916 flood (Schoenherr 2017). Additional habitation sites have been recorded along the Otay River Valley. Habitation areas have been defined

within the Otay Mesa as sites with diverse surface artifact counts of over 200 artifacts per 10x10m collection grids (Gallegos *et al.* 1998)

History

European exploration of the San Diego area was initiated with the maritime expeditions of Juan Rodriguez Cabrillo in 1542 and Sebastián Vizcaíno in 1602. Continuous European settlement began in 1769 when expeditions under the leadership of Gaspar de Portolá and Junípero Serra reached the region from Baja California and passed northward along the coastal plain to seek Monterey, and the presidio and the Misión San Diego de Alcalá were founded. Additional missions were founded in the region at San Juan Capistrano in 1776 and San Luis Rey de Francia in 1798. During this period the original El Camino Real ran from Mission San Diego de Alcalá through to Mission San Luis Rey de Francia (Cavalier 2008). Native Americans within the vicinity of the Project area were removed from their lands and forced into servitude at Mission San Diego de Alcalá. The vicinity of the Project may have been used for grazing cattle by the Spanish during this period, but the APE remained undeveloped. Directly north of the APE was Rancho del Rey, which was in use since 1795 as a grazing area for the Presidio.

In 1821 Mexico achieved its independence from Spain and by 1833 the missions were secularized. During this period the Pueblo of San Diego was founded, although the population grew slowly (Schoenherr 2017). Native Americans released from the Mission San Diego de Alcalá returned to their native villages, moved east to areas lying beyond Mexican control, or sought work on ranchos or in the towns across the region. Numerous large land grants were issued to private owners during this period.

The APE is adjacent to the southern boundary of the Rancho de la Nación and the western boundary of Rancho Otay. Rancho de la Nación was formerly referred to as Rancho del Rey and was granted in John Forster in 1845 and consisted of over 26,000 acres. Rancho Otay, consisting of over 6,000 acres, was granted in 1829 to Doña Magdalena Estudillo, although the lands may have been regranted in 1846 by Governor Pío Pico (Schoenherr 2017). Little development within the vicinity of the APE took place during this period. Within in the ranchos houses, corrals and other facilities for cattle ranching were constructed, while most land remained unchanged and used for crazing of cattle.

The American Period began at the end of the Mexican American War, between 1846-1848, with the Treaty of Guadalupe Hidalgo. After the Mexican American war the population of the region began to grow, as the Ranchos changed hands and eventually were sold. Immigrants from the eastern U.S. gradually moved into the area and supplanted old Californio customs. Due to a lack of reliable water agriculture within the area was limited to grain and ranching of cattle. The growth of the population within San Diego County was punctuated with historical events such as the discovery of gold in the Julian area, the extension of the railroad to San Diego, and the establishment of military facilities.

During San Diego's population boom in the mid-1880s speculators formed land companies and subdivided town sites throughout the county (Pourade 1964:167-191). This boom brought homesteaders to the Chula Vista area. Rancho Otay changed hands several times and was eventually sold to the San Diego Land and Town Company in the 1880s (Schoenherr 2017). Rancho de la Nación also changed hand several times and eventually much of the rancho became National City (Schoenherr 2004).

The City of Chula Vista was incorporated in 1911 but most of the area remained rural for several decades. Lemon groves became the primary agricultural good in the region. Chula Vista was typical of the small agricultural communities that grew up in the hinterland of San Diego, characterized generally by widely dispersed settlements that were united by a common school district, post office, church, and general store (Van Wormer 1986a, 1986b, 1987). By 1919 the San Diego and Arizona Eastern Railway was completed, causing a population growth in the area (Schoenherr 2004). With the construction of dams and other

water facilities agricultural production grew but Chula Vista remained a small agricultural community until World War II. World War II brought aeronautical companies and military housing to the area and by 1955 the population of Chula Vista had expanded to 31,330 people. Over the next several decades Chula Vista continued to grow adding residential development, transportation routes and additional irrigation and water infrastructure (Schoenherr 2004).

3. RESEARCH DESIGN

The Phase I archaeological survey was a systematic, intensive, non-sampling, non-collecting survey. The primary objectives with respect to prehistoric and historic archaeological resources are straightforward: to identify and document all of the resources that are detectable through surface observations. For the research design, the field requirements are (1) that survey coverage include all portions of the study area that can safely be covered and that offer some realistic prospects for containing identifiable resources (excluding, for instance, areas with very steep slopes, flooded areas, areas with no ground surface visibility, or areas where modern construction has destroyed or buried the natural ground surface), and (2) that the spatial extent and general character of any identified resources be documented according to the prevailing professional standards.

The APE lies on the northern bank of the Otay River, placing the APE adjacent to the northern boundary of Otay Mesa. Archaeologically Otay Mesa is unique in that it contains numerous early and middle Holocene archaeological sites, and an extensive lithic scatter that covers the mesa that is interspersed with habitation sites near water sources and quarry sites in the San Ysidro Mountains. The main site types include: sparse lithic scatters, habitation sites, and artifact scatter/temporary camps (Gallegos *et al.* 1998). Due to the high density of archaeological sites within Otay Mesa the City of San Diego and Caltrans prepared a *Management Plan for Otay Mesa Prehistoric Resources, San Diego, California* (Gallegos *et al.* 1998). While the APE is adjacent to Otay Mesa, the archaeological data included in the management plan is applicable to the APE.

The management plan states that sparse lithic scatters are defined as primarily surface deposits with cores and debitage, and this site type involves almost all of the mesa top (Gallegos *et al.* 1998: 3-6). Many of these types of sites have been disturbed by agricultural activities. They contain limited data to contribute to the archaeological record because they do not contain material for radiometric dates or valid statistical samples for intra- and inter-site comparisons (Gallegos *et al.* 1998: 3-6). Gallegos *et al.* states that much of Otay Mesa is a sparse lithic scatter and it is difficult to identify site boundaries. Most of the lithic scatters do not contain charcoal, bone, or shell that would help to date the site. Many do not contain other temporally diagnostic artifact types such as projectile points or ceramics and therefore the artifacts present within the lithic scatters could have been produced over thousands of years. While some sites do contain formal tools such a manos, many times these tools were also commonly used over several thousand years and are not statically significant to add data potential to the site.

Gallegos *et al.* argues that due to the extensive surface scatters covering Otay Mesa a redefinition of the resource significance is needed as the sparse lithic scatters, and even sparse artifact scatters that may contain several formal tools and/or shell do not contain any research potential (1998:3-45).

4. METHODS

Methods used to assess the presence or absence of cultural resources within the Project area included a search of existing records, archival research, an intensive pedestrian field survey, and archaeological and Native American monitoring during geotechnical exploration activities.

ARCHIVAL RESEARCH

The records search was conducted at the SCIC on June 9, 2021 (Appendix A). The search included the APE and a radius of 1-mile around it. It included a review of all records for historic and prehistoric archaeological sites, historic addresses, as well as a review of all known cultural resource reports within a 1-mile radius of the APE. A record search of the Sacred Lands File held by the NAHC was requested on June 8, 2021 (Appendix B). Historic aerial photographs and maps, provided by historicaerials.com and USGS Historical Topographic Map Explorer, of the APE were examined.

FIELD SURVEY

The field survey was conducted on June 15, 2021, July 8, 2021, and September 9, 2021. Field methods consisted of a pedestrian survey of the APE by the archaeologist and Native American monitor in transects spaced at 10-m intervals. The APE was photographed, and all visible soils were examined for cultural resources. If the alignment was under pavement, adjacent areas with ground surface visibility were surveyed. Upon discovery of an artifact or feature, the crew halted while the person who made the discovery scouted the area to determine whether the item was isolated, associated with only a few other items, or part of a larger site deposit. Any isolates and sites were recorded during the transects. Archaeological isolates were distinguished from sites on the basis that isolates consist of three or fewer artifacts within a 50-m radius. All site and isolate locations were recorded in Universal Transverse Mercator (UTM) coordinates using handheld GPS units with sub-meter accuracy. Sites were plotted on proposed Project maps using NAD 83 UTM feet coordinates. Site information was recorded on State of California Department of Parks and Recreation (DPR) 523 series forms. Maps containing confidential site location information and DPR forms are included in Confidential Appendix C. While the process of site documentation varied slightly depending on what kinds of artifacts and features were identified, at all sites the spatial boundaries were delineated, site maps were drawn, artifacts were plotted, artifact inventories were completed, and material types were noted. All notes and photographs from the study are curated at Red Tail's office.

ARCHAEOLOGICAL AND NATIVE AMERICAN MONITORING OF GEOTECHNICAL EXPLORATION

Following the completion of the survey, Red Tail Environmental was notified of geotechnical exploration activities taking place within close proximity to the previously recorded resource locations. Red Tail was retained for archaeological and Native American monitoring to guide the geotechnical crew around existing resource locations to avoid impacts. The monitoring report is included in Appendix D.

Archaeological and Native American monitoring took place on July 29 and 30, 2021, and on August 2, 3, 4, and 5, 2021, for a total of six days. During the construction monitoring the archaeologist and Native American monitor observed all ground disturbance operations associated with the excavation of geotechnical auger bores, geotechnical test pits, and grading activities for the creation of a new unpaved access road within the central drainage to provide access for the bore vehicle to access the eastern portion of the APE. The monitoring areas are shown on Appendix C – Confidential Maps.

The geotechnical exploratory activities within the APE consisted of the excavation of six auger bores and seven test pits. Six of the seven test pits were located along the length of the southern boundary of the APE, within each location being directly north of the existing sidewalk. The seventh test pit was excavated within the central portion of the large north-south trending alluvial drainage which bisects the APE. Three of the six auger bores were located upon the terrace plateau west of the drainage, with the remaining three bores located east of the drainage upon the same plateau. An unpaved access road was also created using a bulldozer within the northern portion of the drainage. Red Tail monitors aided the geotechnical crew by guiding excavation equipment around existing resources to the proposed bore locations and by suggesting alternative locations for bores with proposed locations within resources.

5. RESULTS

ARCHIVAL RESEARCH RESULTS

SCIC Record Search Results

The SCIC record search results indicate that 74 studies have previously been completed within the 1-mile record search radius (Table 1). Six of the previously conducted studies intersect the APE.

Table 1. Previously Conducted Studies within 1-Mile of the APE

Report Number	Year	Authors	Report Title	Relation to APE
SD-00122	1980	BANKS, THOMAS J.	AN ARCHAEOLOGICAL SURVEY OF THE OTAY RANCH PROPOSED BARROW PIT LOCATIONS SAN DIEGO COUNTY.	OUTSIDE
SD-00686	1974	FINK, GARY R.	FURTHER ARCHAEOLOGICAL INVESTIGATIONS OF THE PROPOSED YOUTH DEVELOPMENT CENTER, OTAY, CALIFORNIA	OUTSIDE
SD-00687	1973	FINK, GARY R.	PRELIMINARY ARCHAEOLOGICAL SURVEY OF THE PROPOSED YOUTH DEVELOPMENT CENTER, OTAY, CALIFORNIA	OUTSIDE
SD-00837	1975	FINK, GARY	OTAY LANDFILL EXPANSION ARCHAEOLOGICAL SURVEY PROJECT NO. UJ0144	OUTSIDE
SD-01041	1988	GALLEGOS, DENNIS R. AND DAYLE CHEEVER	CULTURAL RESOURCE INVENTORY FOR HIDDEN TRAILS: OTAY MESA, SAN DIEGO, CALIFORNIA	OUTSIDE
SD-01335	1986	PIGNILO, ANDREW, DENNIS GALLEGOS, AND RICHARD CARRICO	CULTURAL RESOURCE SURVEY OF THREE ALTERNATE JAIL FACILITIES IN SAN DIEGO COUNTY.	OUTSIDE
SD-01412	1989	SMITH, BRIAN F.	THE ARCHAEOLOGICAL SURVEY AT THE CHULA VISTA AUTO CENTRE PROJECT A CULTURAL RESOURCE SURVEY OF 31.667 ACRES	OUTSIDE
SD-01413	1987	SMITH, BRIAN F.	THE ARCHAEOLOGICAL INVESTIGATIONS AT THE OTAY RIO BUSINESS PARK PROJECT A CULTURAL RESOURCE SURVEY OF 210 ACRES AND THE EVALUATION OF THE LOCI OF SITE W-3861	OUTSIDE
SD-01432	1989	SMITH, BRIAN F.	AN ARCHAEOLOGICAL SURVEY OF THE OTAY RANCH/NELSON AND SLOAN QUARRY EXTENSION	OUTSIDE
SD-01460	1984	SCIENTIFIC RESOURCE SURVEYS, INC.	AN ARCHAEOLOGICAL SURVEY OF THE WALKER SCOTT PROPERTIES IN OTAY VALLEY, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-01784	1980	SCIENTIFIC RESOURCE SURVEYS, INC.	ARCHAEOLOGICAL/PALEONTOLOGICAL SURVEY REPORT ON THE CHULA VISTA-OTAY VALLEY ROAD LIMITED INDUSTRIAL PROJECT LOCATED IN THE CHULA VISTA AREA OF THE COUNTY OF SAN DIEGO	OUTSIDE
SD-02047	1985	JAMES HARGROVE	REVIEWERS OF THE OTAY MESA PRISON SEWER PIPELINE NEGATIVE DECLARATION	OUTSIDE
SD-02252	1991	ADVANCED SCIENCES, INC	AN ARCHAEOLOGICAL IMPACT EVALUATION FOR THE OTAY RIVER VALLEY RESOURCE ENHANCEMENT PLAN	OUTSIDE
SD-02511	1993	HIX, ANN B.	DENNERY RANCH PLANNED RESIDENTIAL DEVELOPMENT PERMIT HILLSIDE REVIEW OVERLAY ZONE/RESOURCE PROTECTION PERMIT AND REZONE #88-0785	OUTSIDE
SD-02522	1992	MOONEY, BRIAN	EVALUATION OF A PREHISTORIC RESOURCE PROCESSING SITE CA-SDI-10452 HISTORIC BIRD RANCH CA-SDI-11386H AND WATER CONVEYANCE SYSTEM CA-SDI-11383H FOR THE OTAY VALLEY WATER RECLAMATION PLANT	OUTSIDE
SD-02690	1993	CARRICO, RICHARD, THEODORE G. COOLEY, AND ANDREW PIGNIOLO	FINAL CULTURAL RESOURCES EVALUATION OF THE 23,088 ACRE OTAY RANCH, SAN DIEGO COUNTY	OUTSIDE
SD-02805	1992	CITY OF SAN DIEGO	DRAFT ENVIRONMENTAL IMPACT REPORT, HIDDEN TRAILS REZONE FROM AGRICULTURAL TO RESIDENTIAL, SAN DIEGO COUNTY	OUTSIDE
SD-02842	1984	KIDDER, FRED W.	ARCHAEOLOGICAL SURVEY OF TWO SEWER LINE ROUTES: PROPOSED OTAY MESA PRISON SITE, SAN DIEGO, CALIFORNIA	OUTSIDE

Report Number	Year	Authors	Report Title	Relation to APE
SD-02982	1995	CITY OF SAN DIEGO	HIDDEN TRAILS, DRAFT ENVIRONMENTAL IMPACT REPORT	OUTSIDE
SD-03077	1984	SMITH, BRIAN AND JAMES MORIARTY	AN ARCHAEOLOGICAL SURVEY OF THE ROBINHOOD BRIDGE PRECISE PLAN AND THE EVALUATION OF SITES SDM-W-3513 AND SDM-W-3514, OTAY MESA, CITY OF SAN DIEGO, CALIFORNIA	OUTSIDE
SD-03156	1996	SMITH, BRIAN F.	RESULTS OF AN ARCHAEOLOGICAL SURVEY AT THE OTAY VALLEY PARCEL OF THE OTAY RANCH	OUTSIDE
SD-03266	1996	GROSS, TIMOTHY, RUTH ALTER, AND MARY ROBBINS-WADE	ARCHAEOLOGICAL SURVEY FOR THE JOINT TASK FORCE-SIX BORDER ROAD REPAIR PROJECT, OTAY MOUNTAIN, CALIFORNIA	INTERSECTS
SD-03306	1988	CHEEVER, DAYLE AND DENNIS GALLEGOS	CULTURAL RESOURCE INVENTORY FOR HIDDEN TRAILS; OTAY MESA, SAN DIEGO, CALIFORNIA	OUTSIDE
SD-03359	1988	SMITH, BRIAN F.	A REPORT OF THE RESULTS OF AN ARCHAEOLOGICAL SURVEY AND CULTURAL RESOURCE EVALUATION AT THE ROBINHOOD RIDGE PRECISE PLAN, OTAY MESA, CITY OF SAN DIEGO, CALIFORNIA	OUTSIDE
SD-03452	1998	CITY OF SAN DIEGO	DRAFT EIR FOR ROBINHOOD RIDGE PROJECT	OUTSIDE
SD-03726	1996	KYLE, CAROLYN E. AND DENNIS R. GALLEGOS	ARCHAEOLOGICAL SURVEY REPORT FOR THE OTAY ANNEX LANDFILL PROJECT	OUTSIDE
SD-03767	1994	SCHAEFER, JERRY, STEPHEN VAN WORMER, AND SUSAN WALTER	HISTORIC STUDY REPORT OF SITES CA-SDI-11,374H, -11383H, -12,272H, AND -12,273H FOR STATE ROUTE 125 ON OTAY MESA, SAN DIEGO COUNTY, CALIFORNIA.	OUTSIDE
SD-03950	1997	GALLEGOS, DENNIS AND CAROLYN KYLE	CULTURAL RESOURCES REPORT FOR THE OTAY ANNEX LANDFILL PROJECT	OUTSIDE
SD-04089	1997	GALLEGOS, DENNIS R. AND CAROLYN E. KYLE	CULTURAL RESOURCE SURVEY AND TEST REPORT FOR THE SOUTH SAN DIEGO PIPELINE NO.2 PROJECT CITY OF SAN DIEGO, CALIFORNIA	OUTSIDE
SD-04411	1992	ASM AFFILIATES, INC.	ARCHAEOLOGICAL TESTING AND SIGNIFICANCE EVALUATION PROGRAM REPORT FOR THE SENNERLY RANCH PROPERTY CITY OF SAN DIEGO	OUTSIDE
SD-04533	1998	MONSERRATE, LAWRENCE C. AND CITY OF SAN DIEGO	NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT HIDDEN TRAILS	OUTSIDE
SD-04578	1988	CHEEVER, DAYLE AND DENNIS GALLEGOS	CULTURAL RESOURCE INVENTORY FOR HIDDEN TRAILS; OTAY MESA, SAN DIEGO, CALIFORNIA	OUTSIDE
SD-04590	1990	CITY OF SAN DIEGO	APPENDIXES FOR THE ENVIRONMENTAL IMPACT REPORT FOR OTAY VALLEY WATER RECLAMATION FACILITY FOR THE CLEAN WATER PROGRAM FOR GREATER SAN DIEGO	OUTSIDE
SD-04657	1992	OGDEN ENVIRONMENTAL AND ENERGY SERVICES CO., INC.	DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT. OTAY RANCH	OUTSIDE
SD-04677	1988	SMITH, BRIAN	A REPORT OF THE RESULTS OF AN ARCHAEOLOGICAL SURVEY AND CULTURAL RESOURCE EVALUATION AT THE ROBINHOOD RIDGE PRECISE PLAN	OUTSIDE
SD-04798	1999	CITY OF SAN DIEGO	RECIRCULATED ENVIRONMENTAL IMPACT REPORT: HIDDEN TRAILS PRECISE PLAN VESTING TENTATIVE MAPS	OUTSIDE
SD-05091	1988	CHEEVER, DAYLE	CULTURAL RESOURCE INVENTORY FOR HIDDEN TRAILS; OTAY MESA, SAN DIEGO, CALIFORNIA	OUTSIDE
SD-05092	2000	CITY OF SAN DIEGO	DRAFT EIR FOR HIDDEN TRAILS, OTAY MESA COMMUNITY PLAN	OUTSIDE
SD-05227	1992	COOK, JOHN	ARCHAEOLOGICAL TESTING & SIGNIFICANCE EVALUATION PROGRAM REPORT FOR THE DENNERLY RANCH PROPERTY CITY OF SAN DIEGO, CA	OUTSIDE
SD-05247	1998	CITY OF SAN DIEGO	D.E.I.R. FOR HIDDEN TRAILS COMMUNITY PLAN AMENDMENT	OUTSIDE
SD-05361	2000	MONSERRATE, LAWRENCE	DRAFT ENVIRONMENTAL IMPACT REPORT: HIDDEN TRAILS	OUTSIDE
SD-06728	1999	CITY OF SAN DIEGO	PUBLIC NOTICE OF PROPOSED ADDENDUM TO AN ENVIRONMENTAL IMPACT REPORT-DENNERLY RANCH	OUTSIDE
SD-06805	1987	BERRY, STANLEY AND JUDY A. BERRYMAN	ARCHAEOLOGICAL OVERVIEW AND PLANNING DOCUMENT FOR THE PROPOSED RANCHO OTAY PROJECT	OUTSIDE
SD-07668	2001	BUYSE, JOHNNA AND BRIAN F. SMITH	ARCHAEOLOGICAL MITIGATION OF IMPACT TO PREHISTORIC SITE SDI-13864, OTAY RANCH VILLAGE ONE WEST	OUTSIDE

Report Number	Year	Authors	Report Title	Relation to APE
SD-07775	2000	JOHNNA L. BUYSSE AND BRIAN F. SMITH	A REPORT OF AN ARCHAEOLOGICAL EVALUATION OF CULTURAL RESOURCES AT THE OTAY RANCH VILLAGE TWO SPA	OUTSIDE
SD-08276	2002	CALTRANS AND MARTIN ROSEN	HISTORICAL RESOURCES COMPLIANCE REPORT FOR FILING COMPLETION OF PRC§5024 RESPONSIBILITIES FOR THE SR-905 WALL-HUDSON BIOLOGICAL MITIGATION PARCEL	OUTSIDE
SD-08311	2003	SMITH, BRIAN F.	ARCHAEOLOGICAL INVESTIGATIONS AND CULTURAL RESOURCE EVALUATIONS FOR THE OTAY RANCH COMPANY'S PROPERTY WITHIN VILLAGE 3 OF OTAY RANCH	OUTSIDE
SD-08607	1980	SCIENTIFIC RESOURCE SURVEYS, INC	ARCHAEOLOGICAL/PALEONTOLOGICAL HISTORICAL RECORDS SEARCH AND REPORT ON THE CHULA VISTA-OTAY VALLEY ROAD LIMITED INDUSTRIAL PROJECT LOCATED IN THE CHULA VISTA AREA OF THE COUNTY OF SAN DIEGO	OUTSIDE
SD-09004	2003	ROSEN, MARTIN D.	HISTORICAL PROPERTY SURVEY REPORT- 2ND SUPPLEMENTAL	OUTSIDE
SD-09765	1987	ROBBINS-WADE, MARY, TIMOTHY GROSS, AND SEAN CARDENAS	CULTURAL RESOURCES INVENTORY AND ASSESSMENT: CALIFORNIA TERRACES	OUTSIDE
SD-10448	2005	COOLEY, THEODORE	SITE SIGNIFICANCE EVALUATION OF A PORTION OF PREHISTORIC ARCHAEOLOGICAL SITE CA-SDI-17668 LOCATED ALONG THE PROPOSED OTAY WATER DISTRICT, 30-INCH RECYCLED WATER PIPELINE ROUTE, IN THE OTAY RIVER VALLEY, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-10821	2007	CASE, ROBERT P.	FINAL CULTURAL RESOURCES MITIGATION MONITORING REPORT FOR THE OTAY WATER DISTRICT 30- INCH RECYCLED WATER PIPELINE SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-10935	2007	SMITH, BRIAN F. AND SETH A. ROSENBERG	AN ARCHAEOLOGICAL STUDY FOR THE CHULA VISTA INTERNATIONAL RACEWAY PROJECT	OUTSIDE
SD-11502	1995	SMITH, BRIAN F.	RESULTS OF AN ARCHAEOLOGICAL SURVEY AND THE EVALUATION OF CULTURAL RESOURCES AT THE OTAY RANCH SECTIONAL PLANNING AREA ONE AND ANNEXATION PROJECT	OUTSIDE
SD-12268	2009	ROBBINS-WADE, MARY	ARCHAEOLOGICAL RESOURCES SURVEY, MAIN STREET PROPERTY, CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA	INTERSECTS
SD-12397	2009	CLOWERY-MORENO, SARA AND LARRY J. PIERSON	ARCHAEOLOGICAL MONITORING OF THE OTAY RANCH VILLAGE 2 PROJECT	OUTSIDE
SD-14028	2012	CASTELLS, SHELBY GUNDERMAN	CULTURAL RESOURCES STUDY FOR THE GEOTECHNICAL FIELD INVESTIGATION, HERITAGE ROAD BRIDGE REPLACEMENT, CITY OF CHULA VISTA, CALIFORNIA	INTERSECTS
SD-14368	2013	CITY OF SAN DIEGO	DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE OTAY MESA COMMUNITY PLAN UPDATE, CITY OF SAN DIEGO PROJECT NUMBER 30330/304032	OUTSIDE
SD-14714	2013	CITY OF SAN DIEGO	FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE OTAY MESA COMMUNITY PLAN UPDATE, CITY OF SAN DIEGO	OUTSIDE
SD-15229	2013	KRISTIN TENNESEN	ETS #24738.03, CULTURAL RESOURCES MONITORING FOR THE INTRUSIVE POLE INSPECTIONS, METRO DISTRICT, SUB-AREAS BORD, SNYS, IMPE, OTAY, SBAY, HILT, MONT, SSDE, LINC PROJECT, SAN DIEGO COUNTY, CALIFORNIA (HDR #207357)	INTERSECTS
SD-15274	2013	JAMES E. WHITAKER	ETS #26617, CULTURAL RESOURCES SURVEY FOR CMP POLE REPLACE, P86042, CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA (HDR #223892)	OUTSIDE
SD-15437	2014	KRISTIN TENNESEN	ETS #8357, ADDENDUM CULTURAL RESOURCES SURVEY REPORT FOR THE TL 649 WOOD-TO-STEEL REPLACEMENT AND RECONDUCTOR PROJECT, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-15873	2014	WAYNE H. BONNER AND SARAH A. WILLIAMS	CULTURAL RESOURCE RECORDS SEARCH AND SITE VISIT RESULTS FOR AT&T MOBILITY, LLC CANDIDATE SD0960 (SLEEP TRAIN AMPHITHEATRE), 2050 ENTERTAINMENT CIRCLE, CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-17037	2017	SMITH, BRIAN F.	CULTURAL RESOURCES MONITORING REPORT FOR THE OTAY RANCH VILLAGE 2 SOUTH PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-17094	2017	SMITH, BRIAN F.	CULTURAL RESOURCES MONITORING REPORT FOR THE OTAY RANCH VILLAGE 3 NORTH PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-17217	2016	CASTELLS, SHELBY GUNDERMAN	ARCHAEOLOGICAL SURVEY REPORT FOR THE HERITAGE ROAD BRIDGE REPLACEMENT PROJECT, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE

Report Number	Year	Authors	Report Title	Relation to APE
SD-17371	2017	FOGLIA, SHANNON E. AND THEODORE G. COOLEY	LETTER REPORT: ETS 34479 - CULTURAL RESOURCES SURVEY FOR THE OTAY RANCH VILLAGE 3 HERITAGE RD, MAIN STREET CONVERSION, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA - IO 7074264	INTERSECTS
SD-17372	2018	ROY, JULIE	LETTER REPORT: ETS 34479 - CULTURAL RESOURCES MONITORING FOR THE OTAY RANCH VILLAGE 3 HERITAGE RD, MAIN STREET CONVERSION, CITY OF CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA - IO 7074264	INTERSECTS
SD-17672	2017	VOLTA, BENIAMINO	ETS #26617, CULTURAL RESOURCES MONITORING FOR CMP POLE REPLC, P86042, CHULA VISTA PROJECT, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-18090	2019	PEREZ, DON C.	CULTURAL RESOURCES SURVEY, ESCAYA / CAL00920 / FA 13889810, 1700 MAXWELL ROAD, CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA 91911	OUTSIDE
SD-18125	2019	JOHNSTON, ROBYN	LETTER REPORT: ETS 41481 - CULTURAL RESOURCES SURVEY REPORT FOR THE RECONDUCTOR 4,500' OF #2 AL WITH 336 ACSR IN THE CITY OF CHULA VISTA, CALIFORNIA - IO 7074264	OUTSIDE
SD-18226	2019	WILLHITE, BRENTON E.	ARCHAEOLOGICAL MONITORING FOR INSTALL POLE P294011 IN CHULA VISTA, SAN DIEGO COUNTY, CALIFORNIA (SDG&E ETS # 40443, PANGIS PROJECT # 1401.131)	OUTSIDE
SD-18754	2020	MANCHEN, KENT AND BRIAN WILLIAMS	ARCHAEOLOGICAL RESOURCES MONITORING RESULTS FOR CONSTRUCTION OF SAN DIEGO GAS & ELECTRIC'S TIE LINE (TL) 649 WOOD-TO-STEEL REPLACEMENT PROJECT, SAN DIEGO COUNTY, CALIFORNIA	OUTSIDE
SD-18838	2021	JORDAN, AMY	ARCHAEOLOGICAL MONITORING FOR TCM ACCESS ROADS, ANNUAL REPORT 2020, SAN DIEGO COUNTY, CALIFORNIA (ASM #23005.67)	OUTSIDE

Sixty-six (66) cultural resources have been recorded within the 1-mile record search radius, which includes archaeological sites, historic addresses, and isolates (Table 2). The record search indicated that four previously recorded resources are located within the APE. No historic addresses have been previously recorded within the 1-mile record search radius.

Table 2. Previously Recorded Cultural Resources within 1-Mile of the APE

Primary Number	Trinomial	Period	Contents	Recorder (Date)	Relation to APE
P-37-004738	CA-SDI-4738	PREHISTORIC	AP2 LITHIC SCATTER	M. WATERS (1973)	OUTSIDE
P-37-008065	CA-SDI-8065	PREHISTORIC	AP2 LITHIC SCATTER, AP16 MARINE SHELL SCATTER	M. ROEDER, M. DESAUTELS (N.D.)	OUTSIDE
P-37-008912	CA-SDI-8912	PREHISTORIC	AP2 LITHIC SCATTER, AP16 MARINE SHELL SCATTER	K. TENNESEN (2015) T.J. BANKS (1984) M. DESAUTELS (1980)	OUTSIDE
P-37-010055	CA-SDI-10055	PREHISTORIC	AP2 LITHIC SCATTER	N. BLOTNER (2010) J.R. COOK (1990) D. DESAUTELS (1984)	OUTSIDE
P-37-010056	CA-SDI-10056	PREHISTORIC	AP2 LITHIC SCATTER	J.R. COOK (1990) T.J. BANKS (1984)	OUTSIDE
P-37-010057	CA-SDI-10057	PREHISTORIC	AP2 LITHIC SCATTER	J.R. COOK (1990) A. CODY (1984)	OUTSIDE
P-37-010058	CA-SDI-10058	PREHISTORIC	AP2 LITHIC SCATTER	J.R. COOK (1990) JOINES, SINKOVEC, ROBBINS-WADE (1984) T.J. BANKS (1984)	OUTSIDE
P-37-010059	CA-SDI-10059	PREHISTORIC	AP2 LITHIC SCATTER	A. CODY (1984)	OUTSIDE
P-37-010060	CA-SDI-10060/H	HISTORIC, PREHISTORIC	AP2 LITHIC SCATTER, AP16 MARINE SHELL SCATTER, AH2 FOUNDATIONS, AH4 PRIVIES/DUMPS/REFUSE SCATTERS	J.R. COOK (1990) D. DESAUTELS (1984)	OUTSIDE

Primary Number	Trinomial	Period	Contents	Recorder (Date)	Relation to APE
P-37-010204	CA-SDI-10204	PREHISTORIC	AP2 LITHIC SCATTER, AP16 MARINE SHELL SCATTER	M. ROBBINS-WADE (1987) ROBBINS-WADE, JOINES, KYLE, SENECA (1984)	OUTSIDE
P-37-010452/ P-37-033070/ P-37-033071	CA-SDI-10452/ CA-SDI-20823	PREHISTORIC	AP2 LITHIC SCATTER, AP13 TRAILS/LINEAR EARTHWORKS, AP16 MARINE SHELL SCATTER	H. PRICE, C. ZEPEDA-HERMAN (2019) K. TENNESEN (2014) S. UNDERBRINK (2012) B. SMITH (1996) F. RITZ ET AL (1989) S. BERRYMAN (1986)	OUTSIDE
P-37-010471	CA-SDI-10471	PREHISTORIC	AP2 LITHIC SCATTER	G. FINK (1973)	OUTSIDE
P-37-010472	CA-SDI-10472	PREHISTORIC	AP2 LITHIC SCATTER	A. PIGNIOLO (1986) G. FINK (1973)	OUTSIDE
P-37-010473	CA-SDI-10473	PREHISTORIC	AP2 LITHIC SCATTER	G.R. FINK (1974)	OUTSIDE
P-37-010489	CA-SDI-10489	PREHISTORIC	AP2 LITHIC SCATTER	A. PIGNIOLO (1986)	OUTSIDE
P-37-010650	CA-SDI-10650	PREHISTORIC	AP2 LITHIC SCATTER	A. ANDREWS (2002) T. GROSS, M. ROBBINS-WADE (1986)	OUTSIDE
P-37-010738	CA-SDI-10738	PREHISTORIC	AP2 LITHIC SCATTER	B. SMITH (1984)	OUTSIDE
P-37-010739	CA-SDI-10739	PREHISTORIC	AP2 LITHIC SCATTER, AP16 MARINE SHELL SCATTER	B. SMITH (1984)	OUTSIDE
P-37-010783	CA-SDI-10783	PREHISTORIC	AP2 LITHIC SCATTER	N. BLOTNER (2010) B. SMITH (1987)	OUTSIDE
P-37-011145	CA-SDI-11145	PREHISTORIC	AP2 LITHIC SCATTER	A. GILETTI, J. MERIWETHER, L. HOFF (2009) B. SMITH (1989)	INTERSECTS
P-37-011146	CA-SDI-11146	PREHISTORIC	AP2 LITHIC SCATTER	B. SMITH (1989)	INTERSECTS
P-37-011378	CA-SDI-11378	PREHISTORIC	AP2 LITHIC SCATTER	F. RITZ ET AL. (1989)	OUTSIDE
P-37-011822	CA-SDI-11822	PREHISTORIC	AP2 LITHIC SCATTER	J.R. COOK (1990)	OUTSIDE
P-37-011968	CA-SDI-11968	PREHISTORIC	AP2 LITHIC SCATTER	C. HUNT (2003) C. SERR (1990)	OUTSIDE
P-37-012290	CA-SDI-12290	PREHISTORIC	AP2 LITHIC SCATTER	C. HUNT (2003) B. SMITH (1996) B. RADER, D. JAMES (1991)	OUTSIDE
P-37-012291	CA-SDI-12291	PREHISTORIC	AP2 LITHIC SCATTER	BRIAN F. SMITH & ASSOCIATES (2003) C. HUNT (2003) B. SMITH (1996) B. RADER, D. JAMES (1991)	OUTSIDE
P-37-012292	CA-SDI-12292	PREHISTORIC	AP2 LITHIC SCATTER	C. HUNT (2003) B. RADER, D. JAMES (1991)	OUTSIDE
P-37-012293	CA-SDI-12293	PREHISTORIC	AP2 LITHIC SCATTER	H. PRICE, C. ZEPEDA-HERMAN (2019) BRIAN F. SMITH & ASSOCIATES (2003) C. HUNT (2003) B. SMITH (1996) B. RADER, D. JAMES (1991)	OUTSIDE
P-37-014545	CA-SDI-14178	PREHISTORIC	AP2 LITHIC SCATTER, AP16 MARINE SHELL SCATTER	H. PRICE, C. ZEPEDA-HERMAN (2019) N. BLOTNER (2010) G. PARKER (2004) BRIAN F. SMITH & ASSOCIATES (1996)	OUTSIDE
P-37-014546	CA-SDI-14179	PREHISTORIC	AP2 LITHIC SCATTER, AP16 MARINE SHELL SCATTER	BRIAN F. SMITH & ASSOCIATES (1996)	OUTSIDE

Primary Number	Trinomial	Period	Contents	Recorder (Date)	Relation to APE
P-37-014570	CA-SDI-14203	PREHISTORIC	AP2 LITHIC SCATTER, AP3 CERAMIC SCATTER, AP16 MARINE SHELL SCATTER	C. HUNT (2004) BRIAN F. SMITH & ASSOCIATES (2003) C. HUNT (2003) BRIAN F. SMITH & ASSOCIATES (1996)	OUTSIDE
P-37-014571	CA-SDI-14204	PREHISTORIC	AP2 LITHIC SCATTER	BRIAN F. SMITH & ASSOCIATES (1996)	OUTSIDE
P-37-014578	CA-SDI-14211	PREHISTORIC	AP2 LITHIC SCATTER	C. HUNT (2003) BRIAN F. SMITH & ASSOCIATES (1996)	OUTSIDE
P-37-014739	-	PREHISTORIC	AP16 LITHIC ISOLATE	A. CODY (1984)	OUTSIDE
P-37-014791	-	PREHISTORIC	AP16 LITHIC ISOLATE	ROBBINS-WADE, JOINES, KYLE, SENECA (1984)	OUTSIDE
P-37-014792	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SINKOVEC, ROBBINS-WADE (1984)	OUTSIDE
P-37-014793	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SINKOVEC, ROBBINS-WADE (1984)	OUTSIDE
P-37-014794	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SINKOVEC, ROBBINS-WADE (1984)	OUTSIDE
P-37-014795	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SINKOVEC, ROBBINS-WADE (1984)	OUTSIDE
P-37-014796	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SINKOVEC, ROBBINS-WADE (1984)	OUTSIDE
P-37-014799	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SERR, ROBBINS-WADE (1984)	OUTSIDE
P-37-014800	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SERR, ROBBINS-WADE (1984)	OUTSIDE
P-37-014801	-	PREHISTORIC	AP16 LITHIC ISOLATE	JOINES, SERR, ROBBINS-WADE (1984)	OUTSIDE
P-37-015148	-	PREHISTORIC	AP16 LITHIC ISOLATE	B. RADER, P. MITCHELL (1991)	OUTSIDE
P-37-015149	-	PREHISTORIC	AP16 LITHIC ISOLATE	B. RADER, P. MITCHELL (1991)	OUTSIDE
P-37-015334	-	PREHISTORIC	AP16 LITHIC ISOLATE	S. CAMPBELL, D. JAMES, T. COOLEY, J. BRIGGS (1993)	OUTSIDE
P-37-015335	-	PREHISTORIC	AP16 LITHIC ISOLATE	D. JAMES, S. BRIGGS (1993)	OUTSIDE
P-37-015525	-	PREHISTORIC	AP16 LITHIC ISOLATE	C. KYLE, L. TIFT (1996)	OUTSIDE
P-37-015975	-	PREHISTORIC	AP16 LITHIC ISOLATE	C. KYLE, L. TIFT (1996)	OUTSIDE
P-37-024806	CA-SDI-16437	PREHISTORIC	AP2 LITHIC SCATTER	BRIAN F. SMITH & ASSOCIATES (2003)	OUTSIDE
P-37-026519	CA-SDI-17415	HISTORIC	AH4 PRIVIES/DUMPS/REFUSE SCATTERS	G. PARKER (2004)	OUTSIDE
P-37-030568	-	PREHISTORIC	AP16 LITHIC ISOLATE	A. GILETTI, J. MERIWETHER, L. HOFF (2009)	INTERSECTS
P-37-030569	CA-SDI-19432	PREHISTORIC	AP2 LITHIC SCATTER	A. GILETTI, J. MERIWETHER, L. HOFF (2009)	INTERSECTS
P-37-031360	-	PREHISTORIC	AP16 LITHIC ISOLATE	N. BLOTNER (2010)	OUTSIDE
P-37-031373	CA-SDI-19921	PREHISTORIC	AP16 MARINE SHELL SCATTER	N. BLOTNER (2010)	OUTSIDE
P-37-032800	CA-SDI-20737	PREHISTORIC	AP2 LITHIC SCATTER	J. KRAFT (2012)	OUTSIDE
P-37-032801	CA-SDI-20738	PREHISTORIC	AP2 LITHIC SCATTER	J. KRAFT (2012)	OUTSIDE
P-37-010452/ P-37-033070/ P-37-033071	CA-SDI-10452/ CA-SDI-20823	PREHISTORIC	AP2 LITHIC SCATTER, AP13 TRAILS/LINEAR EARTHWORKS, AP16 MARINE SHELL SCATTER	H. PRICE, C. ZEPEDA-HERMAN (2019) K. TENNESEN (2014) S. UNDERBRINK (2012) B. SMITH (1996) F. RITZ ET AL (1989) S. BERRYMAN (1986)	OUTSIDE

Primary Number	Trinomial	Period	Contents	Recorder (Date)	Relation to APE
P-37-010452/ P-37-033070/ P-37-033071	CA-SDI-10452/ CA-SDI-20823	PREHISTORIC	AP2 LITHIC SCATTER, AP13 TRAILS/LINEAR EARTHWORKS, AP16 MARINE SHELL SCATTER	H. PRICE, C. ZEPEDA-HERMAN (2019) K. TENNESEN (2014) S. UNDERBRINK (2012) B. SMITH (1996) F. RITZ ET AL (1989) S. BERRYMAN (1986)	OUTSIDE
P-37-034473	-	PREHISTORIC	AP16 LITHIC ISOLATE	K. TENNESEN (2014)	OUTSIDE
P-37-034474	-	PREHISTORIC	AP16 LITHIC ISOLATE	K. TENNESEN (2014)	OUTSIDE
P-37-036628	CA-SDI-22124	PREHISTORIC	AP2 LITHIC SCATTER	J. MELING, R. LOVELESS (2014)	OUTSIDE
P-37-036629	-	PREHISTORIC	AP16 LITHIC ISOLATE	J. MELING, R. LOVELESS (2014)	OUTSIDE
P-37-036630	-	PREHISTORIC	AP16 LITHIC ISOLATE	J. MELING, R. LOVELESS (2014)	OUTSIDE
P-37-038705	-	HISTORIC	HP11 ENGINEERING STRUCTURE	M. IHLE (2018)	OUTSIDE
P-37-038724	-	PREHISTORIC	AP16 MARINE SHELL SCATTER	L. DOWNS, R. JOHNSTON (2019)	OUTSIDE

The four resources identified as existing within the APE consist of three prehistoric sites and one prehistoric isolate, each being described in detail below.

P-37-011145/CA-SDI-11145 was originally recorded by B. Smith in 1989 as a moderate scatter of tools and lithic flakes upon a ridge overlooking Otay Valley Road to the south. The resource was revisited and updated in 2009 by A. Giletti, who was able to successfully relocate the site and discover additional artifacts that expanded the site’s boundary. Giletti noted that the additional artifacts enlarged the site’s size from 30 meters (north-south) by 45 meters (east-west) to 60 meters (north-south) by 45 meters (east-west). The survey conducted by Giletti discovered an additional two primary volcanic flakes, one volcanic core fragment, and two medium/coarse-grained volcanic test cores. The 2009 update described the newly discovered artifacts as widely dispersed within the site area, which appeared to be very disturbed. The resource was recommended to be not significant due to the scarcity of cultural material, the disturbed nature of the site, and the lack of research potential (Robbins-Wade 2009). It is unclear if formalized testing and evaluation has occurred with the resource. The 1989 site form by Smith notes “surface recovery” and a site depth of 20 cm, which suggests a testing program was conducted, however no records of the program are available. No testing was conducted by Affinis for the 2009 update (Robbins-Wade 2009 and 2012). The resource has not been updated since 2009.

P-37-011146/CA-SDI-11146 was originally recorded by B. Smith in 1989 as a scatter of lithic tools and production waste upon a ridge overlooking Otay Valley Road to the south. The site measured approximately 75 meters (east-west) by 30 meters (north-south) and carried a depth potential of approximately 20 centimeters. Artifacts present within the site consisted of lithic tools, flakes, lithic cores, and debitage fragments. It is unclear if formalized testing and evaluation has occurred with the resource. The 1989 site form by Smith notes “surface recovery” and a site depth of 20 cm, which suggests a testing program was conducted, however no records of the program are available. The resource has not been updated since 1989.

P-37-030568 consists of a lithic isolate that was recorded by A. Giletti, J. Meriwether, and L. Hoff in 2009. The isolate consisted of a large rejuvenation flake containing core scars along its dorsal surface, measuring 7 cm by 7 cm by 2.5 cm, composed of Santiago Peak volcanic material. The isolate was situated along the edge of a south-facing terrace or bench. The isolate has not been relocated or updated since original recordation.

P-37-030569/CA-SDI-19432 was originally recorded by A. Giletti, J. Meriwether, and L. Hoff in 2009 as a large lithic scatter occupying a south-facing terrace at an elevation of approximately 210 feet amsl. Although the scatter was large in size, Giletti noted that the scatter density was low, consisting of four lithic flakes, five lithic cores, one scraper, and one fragment of angular waste. The site was measured at 75 meters (north-south) by 35 meters (east-west) and contained modern debris and moderate amounts of surface disturbance. The resource was recommended to be not significant due to the scarcity of cultural material, the disturbed nature of the site, and the lack of potential for intact subsurface deposits (Robbins-Wade 2009 and 2012). No testing was conducted by Affinis during the original recordation of the resource. The resource has not been updated since original recordation.

A previous cultural resources survey which included the majority of the APE and evaluations of P-37-011145/CA-SDI-11145 and P-37-030569/CA-SDI-19432 under CEQA was prepared in 2009 and updated in 2012. These reports have been included as Appendix D.

NAHC Record Search Results

The NAHC responded to the record search request of the SLF on June 29, 2021 that the record search of the SLF was negative. The NAHC also provided a list of twenty Native American individuals and organizations which may have additional information on the Project area. All correspondence pertaining to the NAHC, is included in Appendix B.

Red Tail Environmental sent an information request letter to the 20 Native American individuals and organizations on June 29, 2021. On July 2, 2021, Lisa Cumper, Tribal Historic Preservation Officer, representing the Jamul Indian Village of California, responded that they had searched their records and confirmed that the proposed project is within the Kumeyaay territory and asked if a survey had been done. On July 6, 2021, Shelby Castells responded that the Project Area had been previously surveyed, and that Red Tail would be conducting an additional archaeological survey as part of the Project.

As of September 28, 2021, no additional responses have been received.

Historic Map and Aerial Photograph Research Results

In addition to historical documents reviewed at the SCIC, Red Tail reviewed historic United States Geologic Survey (USGS) topographic maps and aerial photographs. Historical topographic maps were reviewed using USGS Historical Topographic Map Explorer, and aerial imagery was accessed via HistoricalAerials.com, part of NETROnline.com.

The APE is visible on USGS topographic maps as early as 1904. The 1904, 1908, 1911, 1915, 1920, 1928, and 1932 topographic maps show no development in the APE. A building and road are present to the south of the APE, south of the current alignment of Main Street. In addition, the river is shown south of its currently alignment and it is unknown if the alignment of the map is incorrect or the river has been rerouted. The previously prepared archaeology report (Robbins-Wade 2009) identified a house shown on the 1904 USGS topographic map outside of the APE to the north east. It is unknown if the building shown on the early topographic maps is the same building.

The 1943 topographic map shows the current alignment of Main Street and the Otay River to the south. It also shows a seasonal drainage bisecting the center of the APE running north-south and a series of two dams and reservoirs to the north of the APE. It also shows a seasonal drainage along the western edge of the APE and a dam and reservoir to the north of the APE. The 1955 topographic map shows a road bisecting the APE in the center drainage running north-south. It also shows additional development

outside of the APE. The 1962 topographic map shows no changes in the APE but the 1977 topographic map shows that the roadway is no longer present within the drainage. It also shows that the drainage on the western boundary of the APE has been dammed to the north of the APE. No additional changes are shown on the topographic maps.

Aerial photographs are available of the APE as early as 1953, which shows the current alignment of Main Street, although it is not as wide as the current alignment. The APE is undeveloped, however there is a roadway bisecting the APE running north-south within the drainage in the center of the APE. The current northern boundary line of the APE appears to be in place as a difference in vegetation along the northern boundary and outside of the APE is apparent. The drainage, shown by an increase in vegetation along the western boundary of the APE is also present. The 1964, 1966, and 1968 aerials show no changes in the APE. Although it is visible that agriculture and development is taking place to the north of the APE.

The 1971 aerial photograph shows that the APE to the west of the road running north-south through the APE may have been graded, mowed, or used for agriculture. The 1978 aerial photograph shows that the development to the north of the APE is currently being constructed, with evidence of mass grading. The road bisecting the center of the APE through the drainage is less visible and it is not clear if it has been abandoned and is being covered with vegetation.

The 1980 and 1981 aerials show that the road is no longer present and no other changes within the APE are visible. The remaining aerials from the 1980s and 1990s show no changes in the APE besides a variation in vegetation levels. Between 1995 and 1996 Main Street was widened into its current extent, but the ground disturbances took place to the south of Main Street and did not impact the APE. The 2005 aerial shows some disturbance along the northern boundary at the center of the APE, which may be related to grading of the land immediately north of the APE.

FIELD SURVEY AND MONITORING RESULTS

The survey was conducted by Red Tail Archaeological Field Director Spencer Bietz and Native American representative Corel Taylor, also from Red Tail Environmental. The crew traversed the area using 10-meter-wide survey intervals when vegetation allowed, with the survey transects being aligned in cardinal directions in order to survey the maximum amount of visible area. Special attention was given to visible soils in areas devoid of vegetation or disturbed soils from bioturbation.

The APE was largely undeveloped and is bordered by an equipment yard for F.J. Willert and an automobile impound area to the north, a medium-sized industrial structure to the west, and Main Street to the south. No development has occurred within areas bordering the APE's eastern boundary. As stated above, the majority of the APE is undeveloped, with a small unpaved pole line access road proceeding uphill and west from the center area. A wide swale divides the APE into eastern and western halves, with the swale measuring approximately 135 feet wide upon its northern entrance and diminishing to approximately 70 feet wide as it joins Main Street. The average elevation for the base of the swale is approximately 160 feet above main sea level (amsl) at its northern limits, and nearly 150 feet amsl where it joins Main Street. Within the swale is a small riparian drainage, which the drainage base cuts into the hill approximately 4 to 7 feet below surface. A second large swale comprises the western edge of the APE, measuring between 80 and 100 feet wide (east-west) with a basal elevation ranging from approximately 155 feet amsl at its northern extent to approximately 140 feet at Main Street.

The eastern half of the APE contained moderate densities of vegetation resulting in ground visibilities that ranged between 25 percent and 50 percent. The western half of the APE contained high densities of vegetation, primarily consisting of non-native grasses, which resulted in ground visibility ranging

between 5 percent and 25 percent. The central swale contained a moderate density of vegetation, with low amounts of ground visibility (less than 10 percent) within the riparian areas and greater amounts (15 percent to 30 percent) within the surrounding areas. The entirety of the western swale contained high densities of vegetation, with ground visibilities ranging between zero and 10 percent. Sediments within both locations consisted of light brown and tannish brown silty sands with small sub-rounded pea-sized gravels and small- to large-sized volcanic cobbles and cobble fragments.

Four cultural resources, P-37-030568, P-37-011145, P-37-030569, and P-37-011146 were previously recorded within the APE. The survey identified two of the four resources and identified an additional prehistoric isolate, 821MS-i-2. The results of the archaeological survey are outlined in Table 3 and described in detail below. The site locations and DPR forms are included in Confidential Appendix C.

During the monitoring for the geotechnical exploration the sediments observed during the auger boring and grading operations consisted of reddish-brown silty sand loam with moderate compaction, containing between twenty percent and 30 percent sub-rounded gravels and small and medium-sized cobbles. One previously unrecorded historic isolate was discovered, 821MS-i-3, during monitoring of grading activities for the creation of the unpaved access road.

Table 3. Results of the Archaeological Survey of the APE

Resource	Type	Status
P-37-030568	Prehistoric Isolate	Not relocated in 2021
P-37-011145/ CA-SDI-11145	Prehistoric artifact scatter	Recorded in 1998, Relocated in 2009 (site boundary extended) and relocated in 2021
P-37-030569/CA-SDI-19432	Prehistoric artifact scatter	Recorded in 2009, relocated in 2021 (approx. 40 m to the east of the previously mapped location)
P-37-011146/CA-SDI-11146	Prehistoric artifact scatter	Recorded in 1998, not relocated within the Project area in 2021
821MS-i-2	Prehistoric Isolate	Recorded 2021
821MS-i-3	Historic Isolate	Recorded 2021

P-37-011145/CA-SDI-11145

P-37-011145/CA-SDI-11145 was previously recorded as a moderately-dense prehistoric artifact scatter. The survey effort resulted in the identification of two fragments of volcanic debitage and one volcanic core within the southeastern portion of the site boundary and three flakes of aphanitic Santiago Peak volcanic material just outside of the northern portion of the site boundary extension identified by Giletti et al in 2009. No additional artifacts were identified, although ground visibility in the vicinity was very limited due to vegetation. However, the artifacts identified during the survey effort suggest that cultural elements appear to exist both within the originally recorded site area and the extension identified in 2009. Furthermore, the southern portions of the originally recorded site boundary by B. Smith in 1989 appear to be eroding into a steep south-facing slope. No cultural artifacts associated with the resource were identified in this area, and it is assumed that the artifacts were either previously collected or have been relocated downslope by alluvial transport. Due to this ongoing erosion, the site boundary was remapped to include stable areas that appeared to be able to contain potential in-situ artifacts (Confidential Appendix C).

P-37-011146/CA-SDI-11146

P-37-011146/CA-SDI-11146 was previously recorded as a scatter of lithic tools and production waste. The resource was not relocated during the survey effort, and no cultural artifacts associated with the resource were identified within the APE. Ground surface visibility within the vicinity was very poor due

to dense vegetation. In addition, the DPR form for the site states “Method of Determination: Surface Recovery” and it is possible the artifacts from the site were collected during the original recordation of the site in 1989 (Smith 1989).

P-37-030568

P-37-030568 was previously recorded as a lithic isolate located along the edge of a south-facing terrace or bench. The survey effort was unable to relocate the resource. The resource’s location is accurate in that the mapped position is directly adjacent to a moderate-to-steeply-angled southwest-facing slope that overlooks Main Street to the south. The surrounding area contained a high density of vegetation, with resulting ground visibility ranging between 5 percent and 25 percent.

P-37-030569/CA-SDI-19432

P-37-030569/CA-SDI-19432 was previously recorded as a large low density lithic scatter occupying a south-facing terrace at an elevation of approximately 210 feet amsl. The site was measured at 75 meters (north-south) by 35 meters (east-west) and contained modern debris and moderate amounts of surface disturbance. The current survey effort resulted in the identification of three volcanic cores, one volcanic core tool, and four fragments of volcanic debitage. At initial recording, the lithic scatter appeared to represent a new resource. However, the survey effort did not relocate any prehistoric artifacts within the area previously defined by Giletti et al in 2009. After reviewing the previously recorded site record and the newly identified lithic scatter, the newly identified scatter appears to represent P-37-030569 and the previously mapped location for the resource was incorrect. The primary indicator of this mistaken mapping lies in the site’s text description, as Giletti *et al.* had described the resource as existing upon at terrace at approximately 210 feet amsl. The newly identified scatter is located within an area matching that description. The previously mapped location of the resource was within the seasonal drainage at the center of the Project area at an elevation of approximately 155 feet amsl, and the drainage is not mentioned as the depositional environment within the 2009 site description. A site boundary was digitized around the newly identified scatter for future digitization by the SCIC as shown in Confidential Appendix C.

821MS-i-2

Isolate 821MS-i-2, consisted of a single volcanic core situated along the crest of a terrace plateau overlooking the western swale. Vegetation within the surrounding area was moderately dense, and ground visibility was approximately 25 percent. The core was present in a surficial context, and no additional artifacts or indications of possibly intact subsurface deposits were identified within the immediate vicinity.

821MS-i-3

Isolate 821MS-i-3, a historic-era clear glass toiletry/perfume bottle, was discovered on July 29, 2021, during monitoring of grading activities for the creation of the unpaved access road. The bottle was discovered in spoil sediments disturbed by the bulldozer during creation of the road. The bottle contained a concave base with an Owens scar, a two-piece body mold seam, and a prescription finish. In addition, the said bottle contained embossed marks upon the body reading “ED/PINAUD//PARIS//NEW YORK,” and “INSIST/ON/THE/GENUINE//PINAUD,” and a mark upon the base reading “BOTTLE/ARE//PROPERTY/OF//..AUD/INC//...” along with an indistinguishable bottle manufacturer mark. Ed. Pinaud is a Parisian perfume and cosmetics brand founded in 1830 by Édouard Pinaud in Paris. Pinaud named his business *A la Corbeille Fleurie*, and following Pinaud’s death in 1868, his son-in-law,

Victor Klotz, took over the company, renaming it to *Klotz et Cie* although the products continued to be sold under the Ed. Pinaud name. At the beginning of the twentieth century, Ed. Pinaud opened a store in New York City (Dumbarton Oaks 2021). The bottle was present within sediments within the drainage, which also contained fragmented portions of modern-era trash and debris.

6. RESOURCE EVALUATION

The City of Chula Vista is the lead review agency for CEQA compliance for the Project. Accordingly, cultural resources which may be impacted by the Project must be evaluated for eligibility to the CRHR under CEQA Guidelines and the City of Chula Vista Historic Preservation Ordinance.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND CALIFORNIA REGISTER OF HISTORIC RESOURCES (CRHR)

According to CEQA (§15064.5a), the term “historical resource” includes the following:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR. Section 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically of culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14, Section 4852) including the following:
 - (A) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 - (B) Is associated with the lives of persons important in our past;
 - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resource Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

According to CEQA (§15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

- (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate

surroundings such that the significance of an historical resource would be materially impaired.

- (2) The significance of an historical resource is materially impaired when a project:
- (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
 - (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
 - (C) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

- (1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).
- (2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
- (3) If an archaeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
- (4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

CITY OF CHULA VISTA HISTORIC PRESERVATION ORDINANCE

Under Title 21 of the Chula Vista Municipal Code (Section 21.04.100) and the City's Historic Preservation Program (Chula Vista 2011) a Historic Resource includes buildings, structures, sites, signs, and other resources. Historical Resources may be designated on the Chula Vista Register of Historical Resources that are:

- c) At least 45 years old; and
- d) Have historical integrity and are determined to have historical significance by meeting at least one of the following criteria:

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- 6) Criterion 1: It is associated with an event that is important to prehistory or history on a national, state, regional, or local level.
 - 7) Criterion 2: It is associated with a person or persons that have made significant contributions to prehistory or history on a national, state or local level.
 - 8) Criterion 3: It embodies that distinctive characteristics of a style, type, period, or method of construction, or represents the work of a master or important, creative individual, and/or possess high artistic values.
 - 9) Criterion 4: It is an outstanding example of a planned landscape or represents the work of a master landscape architect, horticulturalist, or landscape designer, or has potential to provide important information to the further study of landscape architecture or history.
 - 10) Criterion 5: It has yielded, or may be likely to yield information important in prehistory or the history of Chula Vista, the state, region, or nation.

NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the NHPA is the primary directive for cultural resource preservation. Section 106 requires federal agencies with either direct or indirect jurisdiction over a proposed action to take into account the effect of their actions on historic properties. Section 110 also requires federal agencies to assume responsibility for the preservation of historic properties under their jurisdiction or control.

Regulations revised in 1997 (36 CFR Part 800 et. seq.) set forth procedures to be followed for determining eligibility of properties for the NRHP. The eligibility criteria and process are used by federal, state, and local agencies in the evaluation of the significance of cultural resources. Recent revisions to Section 106 in 1999 emphasized the importance of Native American consultation.

36 CFR §800.16(I)(1) states:

Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the NRHP criteria.

Section 106 of the NHPA also requires federal agencies, and those they fund or over which they have approval authority, to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on undertakings on historic properties, following 36 CFR Part 800. To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (including archaeological, historical, and architectural properties) must be inventoried and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead federal agency, others can undertake the work necessary to comply with Section 106.

Pursuant to the NHPA, NRHP eligibility criteria have become the standard for evaluating significance. As published in the Federal Register (November 16, 1981, 46 (220):50189) they are stated as:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- (a) Are associated with events that have made a significant contribution to the broad patterns of our history; or

- (b) Are associated with the lives of persons significant in our past; or
- (c) Embody 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; or
- (d) Have yielded or may be likely to yield, information important in prehistory or history [36 CFR 60.4].

In addition to meeting at least one of the eligibility criteria, a property must also retain sufficient integrity to convey its significance. Integrity is a quality that relates to the historic authenticity of a property. Again, the NRHP defines seven elements of integrity: location, design, setting, workmanship, materials, feeling, and association. Location and setting relate to the relationship of a property to its environment. Design, materials, and workmanship relate to construction methods and stylistic details. Feeling and association relate to the ability of the property to convey a sense of historical time and place. A significant loss of integrity will render a property ineligible for the NRHP, regardless of its level of historical significance. Evaluation of a property to the NRHP requires a consideration of both historical significance as defined by the evaluation criteria and integrity. The criteria under which a property is significant are relevant to the issue of integrity, because the property must retain sufficient integrity of those elements of integrity relevant to the qualifying criteria. For example, for an engineering structure that qualifies for listing under Criterion C, integrity of design, workmanship, and materials are paramount. Generally, prehistoric cultural resources and historical archaeology sites are evaluated for significance under Criterion D, based on their research potential.

EVALUATION OF RESOURCES

Six cultural resources have been recorded within the APE. A summary of their evaluation is provided in Table 4.

Table 4. Eligibility of Resources within the Project Area

Resource	Type	Status	Evaluation
P-37-030568	Prehistoric Isolate	Not relocated in 2021	Isolate not significant under CEQA, not eligible for listing on NRHP
P-37-011145/ CA-SDI-11145	Prehistoric artifact scatter	Recorded in 1998, Relocated in 2009 (site boundary extended) and relocated in 2021	Evaluated as not significant in 2009/2012, evaluated as not significant under CEQA and not eligible for listing on NRHP
P-37-030569/CA-SDI-19432	Prehistoric artifact scatter	Recorded in 2009, relocated in 2021 (approx. 40 m to the east of the previously mapped location)	Evaluated as not significant in 2009/2012, evaluated as not significant under CEQA and not eligible for listing on NRHP
P-37-011146/CA-SDI-11146	Prehistoric artifact scatter	Recorded in 1998, not relocated within the Project area in 2021	Not evaluated, no surface evidence of the site within the Project area, recommended not significant under CEQA and not eligible for listing on NRHP
821MS-i-2	Prehistoric Isolate	Recorded 2021	Isolate not significant under CEQA, not eligible for listing on NRHP
821MS-i-3	Historic Isolate	Recorded 2021	Isolate not significant under CEQA, not eligible for listing on NRHP

P-37-011145/ CA-SDI-11145

P-37-011145/ CA-SDI-11145 was previously recorded as a prehistoric lithic scatter and was relocated during the current survey. In 2009 and 2012 it was recommended that the site did not meet the

significance criteria to be considered a significant archaeological resource under CEQA and an impact to this resource would not constitute a significant environmental effect (Robbins-Wade 2009 and 2012).

The current survey identified the resource in the same condition as identified in 2009 and concurs with the previous evaluation. Based on the sparse artifact assemblage P-37-011145/ CA-SDI-11145 does not appear to be eligible for listing on the CRHR under Criterion 4 or the Chula Vista Register of Historical Resources under Criterion 5, as it does not have any substantial research potential. The resource also does not appear to be eligible for listing in the NRHP as it does not exude any association with significant historic events (Criterion A), cannot be associated with the life of a significant individual (Criterion B), does not embody distinctive characteristics of a type or period and does not display characteristics of a master craftsman (Criterion C), and does not exude the potential to yield additional information contributing to prehistory or history (Criterion D). The site is recommended not eligible to the NRHP, and Project implementation will not result in adverse effects to a historic property. Three archaeological surveys have identified the site as a sparse lithic scatter and further archaeological work at the site is not likely to produce substantially different or unique data that would change these conclusions.

P-37-011146/CA-SDI-11146

P-37-011146/CA-SDI-11146 was previously recorded as a prehistoric lithic scatter and was not relocated within the APE. It is unknown if the resource has been previously evaluated for significance, and no records of earlier evaluations or recommendations exist at the SCIC. Artifacts documented on the DPR site form were unable to be relocated, and it is likely that they were collected at time of original recordation. Even if the resource was relocated, P-37-011146/CA-SDI-11146 does not appear to be eligible for listing on the CRHR under Criterion 4 or the Chula Vista Register of Historical Resources under Criterion 5, as it does not have any substantial research potential. Furthermore, even if the resource was relocated in the same condition as originally recorded, the resource does not appear to be eligible for listing on the NRHP as it cannot be associated with significant historic events (Criterion A), cannot be associated with the life of a significant individual (Criterion B), does not embody distinctive characteristics of a type or period and does not display characteristics of a master craftsman (Criterion C), and does not exude the potential to yield additional information contributing to prehistory or history (Criterion D). The site is therefore recommended as not eligible to the NRHP, and Project implementation will not result in adverse effects to a historic property.

P-37-030568

As an isolate P-37-030568 does not meet the eligibility criteria for listing in the CRHR or the Chula Vista Register of Historical Resources. Under NEPA, the resource cannot be associated with significant historic events (Criterion A), cannot be associated with the life of a significant individual (Criterion B), does not embody distinctive characteristics of a type or period and does not display characteristics of a master craftsman (Criterion C), and does not exude the potential to yield additional information contributing to prehistory or history (Criterion D). The site is recommended not eligible to the NRHP, and Project implementation will not result in adverse effects to a historic property.

P-37-030569/CA-SDI-19432

P-37-030569/CA-SDI-19432 was previously recorded as a prehistoric lithic scatter and was relocated during the current survey approximately 40 meters to the east of the previously mapped site boundary. In 2009 and 2012 it was recommended that the site did not meet the significance criteria to be considered a significant archaeological resource under CEQA and an impact to this resource would not constitute a significant environmental effect (Robbins-Wade 2009 and 2012).

The current survey identified the resource in the same condition as identified in 2009. After updating the site location, Red Tail concurs the previous evaluation for eligibility under CEQA. Based on the sparse artifact assemblage P-37-030569/CA-SDI-19432 does not appear to be eligible for listing on the CRHR under Criterion 4 or the Chula Vista Register of Historical Resources under Criterion 5, as it does not have any substantial research potential. The resource also does not appear to be eligible for listing in the NRHP as it does not exude any association with significant historic events (Criterion A), cannot be associated with the life of a significant individual (Criterion B), does not embody distinctive characteristics of a type or period and does not display characteristics of a master craftsman (Criterion C), and does not exude the potential to yield additional information contributing to prehistory or history (Criterion D). The site is recommended not eligible to the NRHP, therefore Project implementation will not result in adverse effects to a historic property. Two archaeological surveys have identified the site as a sparse lithic scatter and further archaeological work at the site is not likely to produce substantially different or unique data that would change these conclusions.

821MS-i-2

As an isolate 821MS-i-2 does not meet the eligibility criteria for listing in the CRHR or the Chula Vista Register of Historical Resources. Under NEPA, the resource cannot be associated with significant historic events (Criterion A); it cannot be associated with the life of a significant individual (Criterion B), it does not embody distinctive characteristics of a type or period and does not display characteristics of a master craftsman (Criterion C) and does not exude the potential to yield additional information contributing to prehistory or history (Criterion D). The site is recommended not eligible to the NRHP, therefore Project implementation will not result in adverse effects to a historic property.

821MS-i-3

As an isolate, 821MS-i-3 does not meet the eligibility criteria for listing in the CRHR or the Chula Vista Register of Historical Resources. Under NEPA, the resource cannot be associated with significant historic events (Criterion A); it cannot be associated with the life of a significant individual (Criterion B), it does not embody distinctive characteristics of a type or period and does not display characteristics of a master craftsman (Criterion C), and does not exude the potential to yield additional information contributing to prehistory or history (Criterion D).

The isolate is recommended not eligible to the NRHP, therefore Project implementation will not result in adverse effects to a historic property.

7. RECOMMENDATIONS AND CONCLUSIONS

Although avoidance is always the best course of action to take to protect cultural resources, it may not be feasible in all project designs. In order to comply with CEQA, project-related effects/impacts must be avoided, reduced, or mitigated to a level that is acceptable under CEQA.

As defined by CEQA, no significant historic resources are present with the APE and implementation of the Project will not cause an adverse change to a historical resource. The record search and survey identified six cultural resources existing within the APE (P-37-011145/CA-SDI-11145, P-37-011146/CA-SDI-11146, P-37-030568, P-37-030569/CA-SDI-19432, 821MS-i-2, 821-MS-i-3). P-37-011145/CA-SDI-11145 and P-37-030569/CA-SDI-19432, have been previously recommended as not significant under CEQA. As isolates P-37-030568, 821MS-i-2, and 821MS-i-3 are not eligible for listing on the CRHR and not significant under CEQA. P-37-011146/CA-SDI-11146 has not been evaluated for eligibility. However, no artifacts within the previously mapped site boundaries were identified during the archaeological survey, and it is believed that artifacts associated with the resource were collected at time of original recordation.

In order to comply with Section 106 of the NHPA, project-related effects/impacts must be avoided, reduced, or mitigated to a level that is acceptable under federal requirements. P-37-011145/CA-SDI-11145, P-37-011146/CA-SDI-11146, P-37-030568, P-37-030569/CA-SDI-19432, 821MS-i-2, 821-MS-i-3 are recommended not eligible to the NRHP, therefore no historic properties are present within the APE and Project implementation will not result in adverse effects.

Due to the presence of cultural resources within the APE, the presence of numerous cultural resources within one mile of the APE, early historic use within the vicinity of the APE, the overall poor to moderate ground visibility within the APE due to dense vegetation, and the possibility of buried cultural resources within the alluvial Otay River Valley (Gallegos *et al.* 1998:2-23) construction monitoring by an archaeologist and Native American monitor is recommended for the initial ground disturbance for the Project.

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APPENDICES

APPENDIX A: SCIC RECORD SEARCH CONFIRMATION

APPENDIX B: NAHC CORRESPONDENCE

APPENDIX C: CONFIDENTIAL MAPS AND DPR FORMS

(Provided Separately)

APPENDIX D: CONFIDENTIAL PREVIOUS ARCHAEOLOGICAL REPORTS

(Provided Separately)