CEQA Cultural Resources Technical Report, Otay River Restoration Project; City of Chula Vista Mitigation Bank Expansion and Trail Alignment, San Diego County, California

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Report Title:	CEQA Cultural Resources Technical Report, Otay River Restoration Project; City of Chula Vista Mitigation Bank Expansion and Trail Alignment, San Diego County, California
Type of Study:	Phase I Field Survey and Impacts Assessment
New Sites:	ICF-OH-P-001, ICF-OH-ISO-01, ICF-OH-ISO-02, ICF-OH-ISO-03, ICF-OH-ISO-04, ICF-OH-ISO-05
Updated Sites:	Relocated: P-37-004728, P-37-004732, P-37-004735, P-37-010875, P-37-014566, P-37-014575, P-37-014585, P-37-031366, P-37-032254, and P-37-034106 Not Relocated: P-37-004733, P-37-007212, P-37-008649, P-37-031365, P-37-014583, P-37-015386, and P-37-015391
USGS Quadrangle:	Otay Mesa, California: 7.5' series (1:24,000)
Acreage:	PAL: 240.17 acres; 219.24 surveyed
Keywords:	Phase I Survey and Inventory; CEQA Impact Assessment; Otay Mesa, Otay Valley, lithic scatter, lithic isolate

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Contents

Tables and Figures

Acronyms and Abbreviations

APN	Assessor's Parcel Numbers
BP	before present
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
HMMP	Habitat Mitigation and Monitoring Plan
LiDAR	light detection and ranging imagery
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PAL	project area limits
PRC	Public Resources Code
USACE	U.S. Army Corps of Engineers

Executive Summary

The Otay Land Company, LLC, is proposing multiple residential and commercial development projects as part of the Otay University Villages. The projects would result in direct impacts on small first-order ephemeral drainages, and would therefore require compensatory mitigation to offset unavoidable loss of stream acreage and function under Section 404 of the Clean Water Act. Compensatory mitigation is proposed within the nearby Otay River Valley on the Otay River mainstem immediately below the Savage Dam. To guide the mitigation project, a habitat mitigation and monitoring plan (HMMP) was developed. The mitigation project would require permits from the U.S. Army Corps of Engineers (USACE) and would need to be conducted in compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA) and the California Environmental Quality Act of 1970 (CEQA). ICF was retained to perform a cultural resources survey to support the project's NHPA and CEQA obligations. In 2015, cultural resources technical studies were conducted by ICF for a 110-acre mitigation parcel (Elder 2015) located immediately east of the Project Area Limits (PAL). Since the 2015 studies, the mitigation parcel has been expanded and an additional trails component has been added to the project. The purpose of this technical report is to describe the findings of the cultural resources survey for the project (expansion of the mitigation bank and trails) and provide technical recommendations accordance with the project's CEQA obligations.

A review of the Sacred Lands File performed by the Native American Heritage Commission (NAHC) revealed no documented Native American cultural resources within the PAL.

Cultural resources pedestrian surveys of the PAL were conducted on September 25, 2018; September 26, 2018; April 9, 2019; September 11, 2019; September 12, 2019; and June 29, 2021. Seventeen previously recorded archaeological resources are located within the PAL, and the pedestrian survey relocated artifacts associated with ten of the resources (P-37-004728, P-37-004732, O-37-004735, P-37-010875, P-37-014566, P-37-014575, P-37-014585, P-37-031366, P-37-032254, and P-37-034106). The pedestrian survey did not relocate artifacts for portions of seven previously documented sites (P-37-004733, P-37-008649, P-37-015391, P-37-015386, P-37-007212, P-37-031365, and P-37-014583), although in some instances the PAL only intersected with a very small portion of the resource. No attempt was made to relocate portions of sites outside of the PAL. One newly identified archaeological resource and five newly identified isolated artifacts were recorded during the course of the survey.

Historic documentation review and a pedestrian survey revealed that the central portion of the PAL has been subject to deep and widespread ground disturbance associated with a sand and gravel mining operation that occurred on site during the late twentieth century. This area is considered to have limited potential to contain archaeological and historic built resources.

The HMMP has identified specific activities for different areas of the PAL. In order to reduce impacts to a less-than-significant level, cultural resources and Native American monitoring has been recommended for initial ground-disturbing activities occurring within site boundaries of P-37-004728, P-37-004732, P-37-014575, P-37-014583, P-37-014585 and ICF-OH-P-001 and portions of sites outside the old mining extent for P-37-010875 and P-37-014566.

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Chapter 1
Introduction

The Otay Land Company, LLC, and City of Chula Vista are proposing multiple residential and commercial development projects as part of the Otay University Villages (the projects). The projects would result in direct impacts on small first-order ephemeral drainages, and would therefore require compensatory mitigation to offset unavoidable loss of stream acreage and function under Section 404 of the Clean Water Act. Compensatory mitigation is proposed within the nearby Otay River Valley on the Otay River mainstem immediately below the Savage Dam. To guide the mitigation project, a habitat mitigation and monitoring plan (HMMP) was developed. The HMMP proposes channel and floodplain re-establishment and enhancement (removal of invasive species) within the mainstem channel. Project elements associated with these activities would include grading, vegetation removal, recontouring, plantings, establishment of main access roads and permanent at-grade channel crossings, and decommissioning of other less frequently used roads.

In 2015, cultural resources technical studies were conducted by ICF for a 110-acre mitigation parcel (Elder 2015) located immediately east of the Project Area Limits (PAL). Since the 2015 studies, the mitigation parcel has been expanded and an additional trails component has been added to the project. As part of the larger partnership between the Otay Land Company and the City of Chula Vista, the mitigation project will also be finalizing elements of the Otay Valley Regional Park trails that occur within the project area. This includes identifying existing informal trails and roads, reclaiming redundant trails, designing a trail plan that meets the needs of the user community, constructing the trails, and adding educational signage. The project team has worked for the last 5 years to identify the specific needs of the existing land users (i.e., San Diego Gas & Electric, Border Patrol, and Otay Water District) as well as the future public recreation community, including pedestrians, bicyclists, and equestrians. The project team has also worked closely with the agencies to balance the multiple uses on site, including the mitigation, future recreation, utility access, and border safety.

The project is a federal undertaking and would require compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The project would also be funded by the City of Chula Vista and is therefore subject to review under the California Environmental Quality Act (CEQA) and its implementing regulations in the State CEQA Guidelines. CEQA requires state and local agencies to evaluate their proposed projects for their potential to cause significant impacts on archaeological resources, as well as other environmental resources. This technical report describes the findings of the cultural resources survey and provides technical recommendations in accordance with the project's CEQA obligations.

1.1 Project Area Limits

The project is located at the base of the Otay Valley, approximately 8 miles southeast of the City of Chula Vista, California, within Assessor's Parcel Numbers (APN) 64408009, 64408019, 64408021, 64409003, and 64409004 (Figures 1-1 and 1-2). The PAL includes the expanded mitigation bank area (expanded in April 2019 to include Salt Creek, expanded farther east again in September 2019, and approximately 20 acres added in June 2021) and the Otay Valley Regional Park trails (Figure 1-

3). It is anticipated that the project would result in minimal and temporary construction-related effects (e.g., dust, noise, and light) on areas that fall outside of the project's construction footprint. As a result, the horizontal extent of the project's archaeological and historic built environment PAL encompasses the project's construction footprint and associated access roads, and a 5-meter buffer for proposed trail improvements. The PAL measures approximately 240.17 acres and was accessed via existing paved and gravel roads. The vertical extent of the PAL would be defined as the depth of ground-disturbing activities, which would vary by activity across the PAL. For example, the depth of excavation associated with grading and channel excavation may extend as deep as 15 feet below the ground surface, while road decommissioning is anticipated to only result in minimal disturbance of the ground surface.

1.2 Regulatory Context

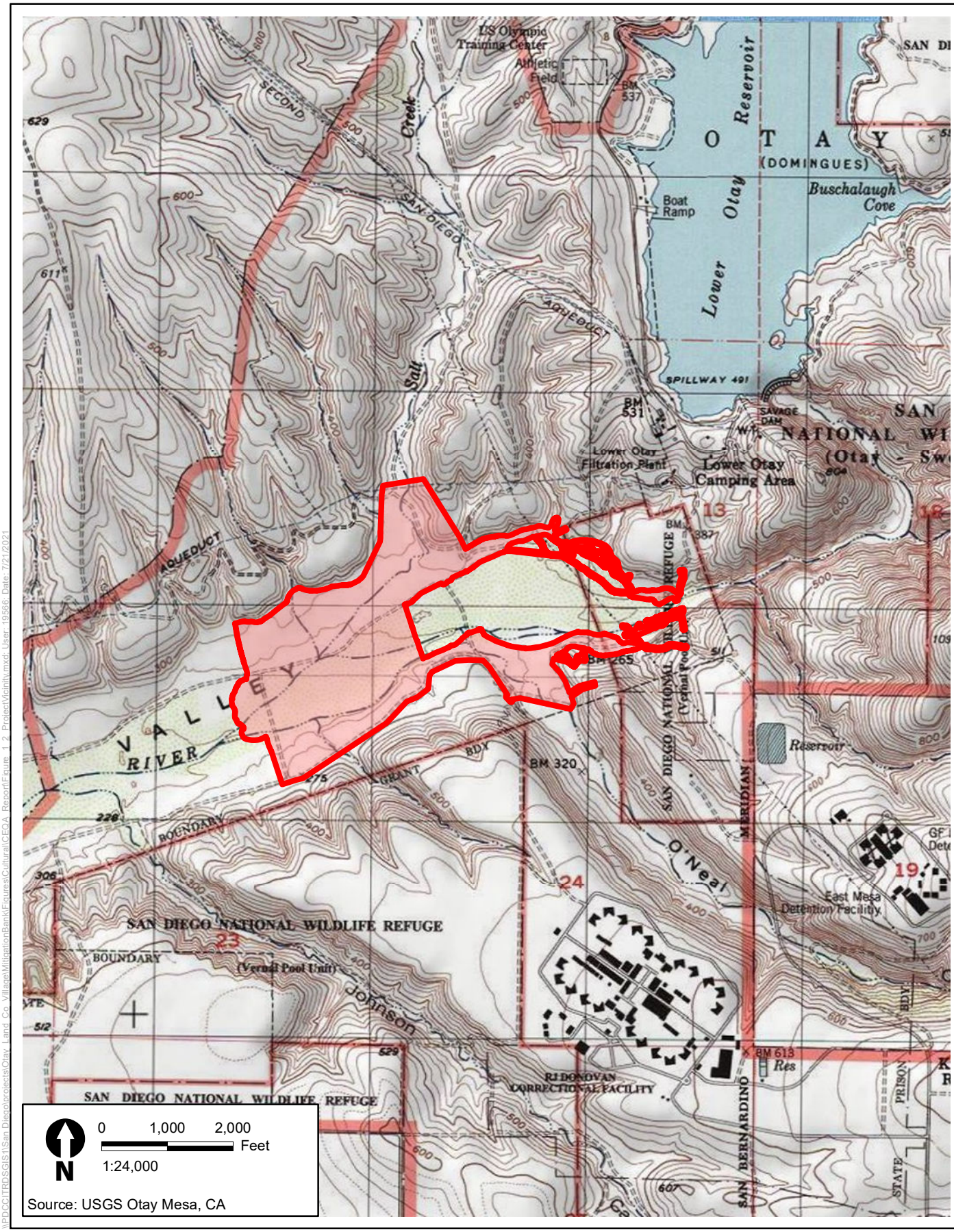
Federal and state regulations recognize the public's interest in cultural resources and the benefit in preserving them. These laws and regulations require analysts to consider how a project might affect cultural resources and to take steps to avoid or reduce potential damages to them. A cultural resource can be considered any property valued (e.g., monetarily, aesthetically, or religiously) by a group of people. Valued properties can be historical in character or date to the precontact past (i.e., the time prior to contact with European Americans). The project's federal cultural resources regulatory obligations were previously considered in the technical report *Cultural Resources Survey for the Otay River Restoration Project; City of Chula Vista Mitigation Parcel, San Diego County, California* (Elder 2015), and the expanded portions of this project will be considered in an upcoming report; therefore, the purpose of the present report is to address the project's state and local cultural resources obligations. Consequently, the following summarizes the state and local cultural resources regulations that apply to the project.

1.2.1 State Regulations

1.2.1.1 California Environmental Quality Act

CEQA is the primary regulation that guides the need for environmental review in California. The purpose of CEQA is to consider whether a project would result in adverse effects on the environment and whether any effects could be reduced or mitigated. Any projects undertaken by a public agency or any discretionary projects (i.e., projects that require the exercise of judgement or deliberation by a public agency) performed by private parties are subject to the CEQA process. Under CEQA, "historical resources" are considered part of the environment and are therefore protected.

Figure 1-1
Regional Location Map
Otay River Restoration Project; City of Chula Vista
Mitigation Bank Expansion and Trail Alignment



\\DOGCITRDSGIS1\San Diego\projects\Otay_Land_Co_Village\MitigationBank\Figures\Cultural\CEQA_Report\Figure_1-2_ProjectVicinity.mxd User: 19666 Date: 7/21/2021

Figure 1-2
Project Vicinity Map
Otay River Restoration Project; City of Chula Vista
Mitigation Bank Expansion and Trail Alignment

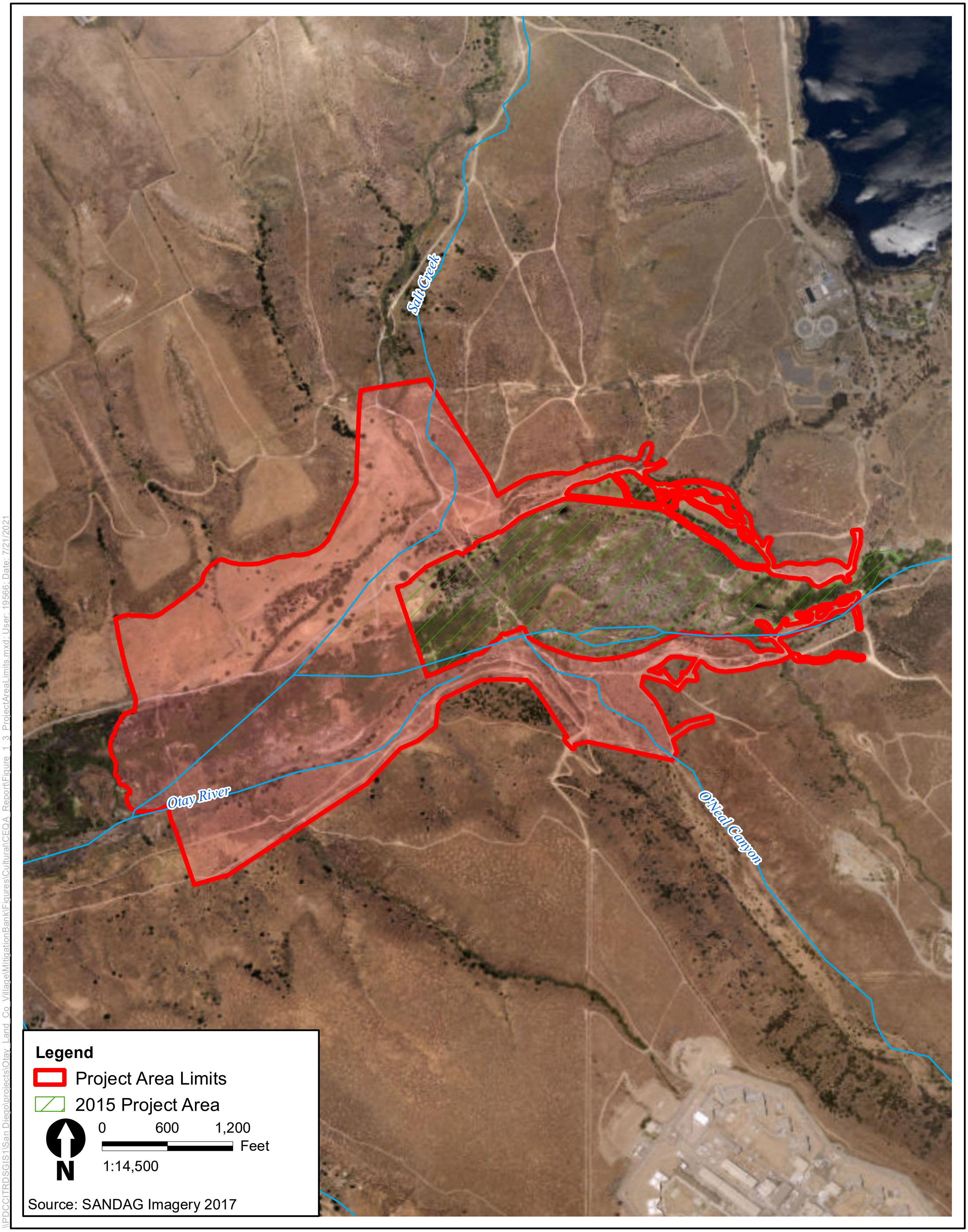


Figure 1-3
Project Area Limits
Otay River Restoration Project; City of Chula Vista
Mitigation Bank Expansion and Trail Alignment

Historical resources (Section 15064.5a) are defined as follows.

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code [PRC] SS5024.1; California Code of Regulations [CCR], Title 14, Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g).
- Any object, building, structure, site, area, place, record, or manuscript that 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, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (PRC SS5024.1, 14 CCR 4852), which parallel the National Register of Historic Places (NRHP) criteria but consider state and local significance.

Even in instances where a resource is not listed in, or determined eligible for listing in, the CRHR; not included in a local register of historical resources; or not identified in a historical resources survey, a lead agency may still determine that a resource is a historical resource as defined in PRC Section 5020.1(j) or 5024.1. If it is determined that a project would result in a substantial adverse change to the significance of a historical resource, then that project would have a "significant effect" on the environment.

CEQA also contains provisions regarding the protection of Native American remains (Section 15064.5 (d) & (e)). In the event that a study identifies the existence of, or likelihood of, Native American remains, the lead agency must work with the appropriate Native Americans as identified by the Native American Heritage Commission (NAHC) as provided in PRC SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC.

1.2.2 Local Regulations

1.2.2.1 San Diego County Local Register of Historical Resources

San Diego County requires that resource importance be assessed not only at the state level as required by CEQA, but also at the local level. The local register criteria parallel the NRHP criteria but consider resource significance at the county and local level.

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Chapter 2
Setting

The following summarizes of the key characteristics of the PAL's natural and cultural setting. Discussion of the natural setting includes geology, flora, and fauna, while discussion of the cultural setting summarizes the precontact, ethnographic, and historical cultural setting of the PAL vicinity.

2.1 Environmental Setting

2.1.1 Geology

The PAL is located at the interface between the coastal plain and inland mountains within the Peninsular Ranges physiographic province. The province is characterized by a series of north-to-south–trending mountain ranges that gradually slope west to the coastal plain and sharply slope east to the Salton trough (Norris and Webb 1990). The coastal plain is characterized by a series of terraces with localized vertical stream incision. The terraces are composed of uplifted bedrock derived from marine and non-marine sediments deposited along the coastal margin during the Tertiary (65 million years ago to 1.8 million years ago) and Quaternary (1.8 million years ago to the present) periods (Jahns 1954; Roffers and Bedrossian 2010). The PAL is situated on the floor of the Otay Valley, which was created when the ancestral Otay River and its tributary streams incised the Otay Mesa—one of the many terraces located along the coastal plain. The central portion of the PAL is situated on a floodplain, and alluvial terraces formed during the Holocene epoch. The northern and southern margins are situated on high alluvial terraces formed during the Pleistocene epoch. Outcrops of metavolcanic rock are located along—but outside of—the eastern, southern, and northwestern margins of the PAL (Tan and Kennedy 2002).

2.1.2 Flora

Based on a previous floristic survey performed by ICF in 2019, 21 vegetation communities and land cover types were documented within the PAL, including coastal and freshwater marsh, mule fat scrub, Diegan coastal sage scrub, southern willow scrub, southern cottonwood-willow riparian forest, chamise chaparral, southern interior cypress forest, nonnative grassland, eucalyptus woodland, and nonnative vegetation (ICF 2019). The most frequently observed vegetation on site included buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma, laurina*), California sagebrush (*Artemisia californica*), toyon (*Heteromeles arbutifolia*), broom baccharis (*Baccharis sarothroides*), Californian pepper tree (*Schinus molle*), and tamarisk (*Tamarix* sp.).

2.1.3 Fauna

Prior to the historic period, terrestrial faunal resources in the region included, but were not limited to, grizzly bear (*Ursus horribilis*) and black bear (*Ursus americanus*), mountain lion (*Felis concolor*), bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), badger (*Taxidea taxus*), ringtail (*Bassariscus asutus*), raccoon (*Procyon lotor*), jackrabbit (*Lepus californicus*), brush rabbit (*Sylvilagus bachmani*), cottontail rabbit (*Sylvilagus*

audubonii), ground squirrel (*Spermophilus beecheyi*), and pocket gopher (*Thomomys bottae*)(Burt and Grossenheider 1976). Present-day mammal species observed within the PAL include woodrat (*Neotoma* sp.), desert cottontail (*Sylvilagus audubonii*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and southern mule deer (*Odocoileus hemionus*) (ICF 2019).

2.2 Cultural Setting

2.2.1 Precontact Setting

The PAL is located the south coastal cultural region of California. Several cultural chronologies have been developed for the region (including, but not limited to, Morrato 1984, Bull 1987, Gallegos 1992, and Warren 1987). The setting provided below synthesizes some of these chronologies into a brief discussion of regional cultural trends over time. This setting divides the precontact cultural sequence into three periods. These periods are analytical constructs and do not necessarily reflect Native American views.

2.2.1.1 Paleoindian Period

Traditionally, it was thought that the earliest human inhabitants of North America were highly mobile terrestrial hunters. Commonly referred to as the Clovis, these people used intricate bone and stone technology. On the west coast of North America, Clovis assemblages are characterized by a wide but sparse distribution of isolated tools and caches dated to between 12,800 and 12,500 years before present (BP) (Meltzer 2004). However, over the last few decades along the western coasts of North and South America, several archaeological sites and sets of human remains have been documented in island and mainland coastal contexts that date to the same period as the Clovis (i.e., Erlandson et al. 2007). These discoveries have forced researchers to reconsider how early humans migrated to the Americas and their land-use strategies—with a greater emphasis placed on coastal environments.

In the south coastal region of California, the earliest evidence of human occupation has been found on the Channel Islands (Rick et al. 2005). For example, in addition to the set of human remains dated to around 13,000 years ago on Santa Rosa Island, an archaeological site dating to around 11,600 BP has been documented on San Miguel Island. The site contains numerous fish and shellfish remains, indicating an emphasis on marine resources (Rick et al. 2001). At least two archaeological sites along the mainland coast have been dated to prior to 10,000 BP, as well (Glassow et al. 2007). Although no coastal assemblages dated to earlier than 10,000 BP have been documented along the San Diego shoreline, it is inferred that the absence of sites is largely a function of a long-term trend in sea-level rise and shoreline erosion in the region. These trends are likely to have obscured and/or destroyed early coastal sites.

2.2.1.2 Archaic Period

Evidence of human occupation of the San Diego region begins to appear at around 10,000 BP in the form of lithic assemblages comprising scrapers, scraper planes, cobble choppers, large blades, large projectile points, and crescentic stones of unknown function (Davis et al. 1969; Warren 1967). These items are attributed to a cultural complex locally referred to as the San Dieguito. Based on the range

of artifact types, artifact frequency, and distribution of archaeological sites, the San Dieguito are thought to have used a generalized terrestrial hunting and gathering land-use strategy (Davis et al. 1969). At about the same time, shell middens with millstone assemblages began to appear along sloughs and lagoons. Although this complex was originally considered to be a separate cultural tradition—the La Jolla—several researchers have subsequently argued that the San Dieguito, La Jolla, and Pauma (an inland lithic tradition indicative of inland resource collection and processing) complexes were created by the same group. The differences between the various complexes are thought to be a function of localized differences in the types of resources that were being collected and processed, rather than a difference in cultural affiliation (Gallegos 1987). Interestingly, as the archaeological contents of early to middle Holocene-aged coastal sites in the San Diego vicinity sites tend to differ from coastal sites located farther north and include items typically associated with early Great Basin cultures (Morrato 1984), researchers have argued that the San Dieguito are descendants of groups that migrated out of the Great Basin region after the great Pleistocene lakes receded (e.g., Gallegos 1991).

It appears that after around 4,000 BP the frequency of coastal archaeological sites in the San Diego region began to decline. Several mechanisms for this apparent decline have been postulated, including, but not limited to, the in-filling of shallow lagoons during this period (Gallegos 1992; Masters and Gallegos 1997) and poor visibility/preservation of ca. 4,000 BP sites related to local geomorphic factors (Waters et al. 1999).

2.2.1.3 Late Prehistoric Period

Starting at around 1,300 BP, the archaeological record reflects the emergence of two cultural traditions in the San Diego region. The range and spatial distribution of site types, as well as site constituents for both traditions, is thought to reflect the ethnographically observed lifeways of the Kumeyaay and Luiseño peoples (Morrato 1984). Although these two groups have clear linguistic and cultural distinctions, both appear to have designed their land use around the intensive exploitation of a range of local resources and established permanent to semi-permanent villages from the coast to the mountains and foothills. Both groups also adopted the use of small projectile points, pottery, and intensified use of acorns (True 1970).

Based on ethnographic data, the boundary between the lands of the Kumeyaay (to the south) and Luiseño (to the north) peoples occurred in the vicinity of Agua Hedionda and Batiquitos Lagoon (Kroeber 1925). It is unknown, however, whether this boundary reflects a persistent spatial division between the two groups or the most recently recorded position of a boundary that fluctuated over time. Regardless, the PAL is located within an area inhabited by the Kumeyaay. Archaeological sites attributed to the Kumeyaay are characterized by a range of artifact types referred to as the *Cuyamaca complex*. The complex includes small triangular pressure flaked projectile points, mortars and pestles, drilled stone ornaments, olivella beads, a steatite industry, ceramics, and urn cremations. Archaeological sites attributed to the Luiseño (termed *the San Luis Rey complex*) contain a similar range of artifact types but tend to have lesser frequencies of side-notched projectile points, ceramics and ceramic forms, and milling stones. In addition, their cremations tended to be ungathered (True 1970).

2.2.2 Ethnographic Setting

The PAL was traditionally inhabited by the Kumeyaay people (previously referred to as the *Diegueño*), who spoke the *Tipai* dialect of the Yuman language. The Kumeyaay inhabited a region

that contained the southern San Diego County, west and central Imperial County, and the Northern Baja peninsula (Spier 1923; Almstedt 1982). Speakers of the Tipai dialect traditionally lived south of the San Diego River, while speakers of the Ipai tended traditionally lived north of the San Diego River (Langdon 1975; Hedges 1975).

The Kumeyaay used a wide range of environments for habitation and resource collection, including the coast, foothills, mountains, and desert (Almstedt 1982). In response to the wide-ranging conditions from these environments, the Kumeyaay used a range of settlement strategies. For example, residential mobility was commonly practiced in desert environments where resources were sparse and widely distributed (Hicks 1963), whereas large seasonal residential bases were established in the mountains and foothills (Almstedt 1982). In keeping with the wide range of environments that they inhabited, the Kumeyaay exploited a range of resources, including (but not limited to) terrestrial mammals, birds, fish, marine invertebrates, grasses, manzanita, sage, sunflowers, lemonade berry, chia, mesquite, agave, and acorns. The acorns were particularly important because they could be processed and stored for long periods (Hicks 1963; Shackley 1984).

The documentary record for ethnographically named places attributed to the Kumeyaay is sparse, consisting of fewer than 60 named places (Luomala 1978). Review of the publicly available literature reveals no documented ethnographically named places within the PAL. However, consultation with the affected tribes may result in the identification of previous undocumented ethnographically named places.

2.2.3 Historical Setting

The historical period began in the San Diego region between the late sixteenth century and the middle eighteenth century, which corresponds with the arrival of Spanish explorers. A brief history of the interaction between Native Americans, Europeans, and European Americans that followed initial contact is provided below.

2.2.3.1 Native American History

The Kumeyaay first encountered Spanish explorers in any great number in 1796, when the Spanish established the Mission San Diego de Alcalá and, later, the Mission San Luis Rey de Francia in 1798. The missions used the local Native American inhabitants as laborers and attempted to convert them to Catholicism (Castillo 1978). At contact, it is thought that the Kumeyaay population numbered between 16,000 and 19,000 individuals (Shipek 1986). Following the establishment of the missions and the introduction of European diseases, the Kumeyaay population decreased dramatically. By the early 1820s, California came under Mexico's rule. Despite the transition, the Kumeyaay continued to be forced from their traditional lands and to work as laborers (Castillo 1978). As a result of this continued hardship and a period of political instability, many Native Americans participated in an uprising against the Mexican rancheros and left the missions and rancheros to live in their traditional villages (Shipek 1970). When California became a state in 1849, the Kumeyaay continued to receive harsh treatment (Castillo 1978).

As conflicts with encroaching European Americans increased, the United States government entered into treaty negotiations with the Kumeyaay (referred to as the *Dieguiño* at the time) in 1852 to obtain exclusive rights to land and cessation of hostilities in exchange for allotted reservation land, payment, and European American farming and industrial equipment (Kappler 1929; Shipek 1978).

The treaty, referred to as the *1852 Treaty of Santa Ysabel*, was completed and sent to Congress for ratification. Under pressure from settlers and a California Senate delegation, the treaty—as well as 17 other treaties—was rejected (Castillo 1978). After several years of additional encroachment by European Americans, the United States Congress passed the *1891 Act for the Relief of Mission Indians*. This act set aside reservation lands and trust lands—often small in size and lacking adequate water—for the Kumeyaay people. Today, many descendants of the Kumeyaay live within or near the 13 reservations of the Kumeyaay Bands or in surrounding communities (Shipek 1978).

2.2.3.2 European/European American History

Spanish Period

The historic period in California began with the early explorations of Juan Cabrillo in 1542. Cabrillo came ashore on what is now Point Loma to claim the land for Spain and gave it the name San Miguel. Sixty years passed before another European, Sebastían Vizcaíno, entered the bay on November 10, 1602, and gave it the name San Diego. Although both expeditions encountered native inhabitants, there appears to have been little or no interaction. The first Spanish settlement in San Diego was established in 1769 on Presidio Hill and consisted of a presidio (fort) and a chapel that also served as Alta California's first mission. In that same year, an expedition headed by Gaspar de Portolá traveled north from the Presidio de San Diego to extend the Spanish Empire from Baja California into Alta California by seeking out locations for a chain of presidios and missions in the area. This expedition led to the establishment of the San Diego, San Luis Rey, and San Juan Capistrano missions between 1769 and 1821 (Pourade 1960).

During the Spanish period, colonists introduced horses, cattle, sheep, pigs, corn, wheat, olives, and other agricultural goods and implements, as well as new architecture and methods of building construction (Englehardt 1920). Despite the economic prosperity of the missions, Spain maintained a tenuous grip on the region—a grip that was ultimately overcome by Spanish colonists in Alta California in 1822 (Pourade 1961; Rawls and Bean 2003).

Mexican Period

Following Mexico's independence from Spain in 1821, the Mexican period began in San Diego County and lasted until 1848, ending with the conclusion of the Mexican-American War. During this period, most Spanish laws and practices continued until shortly before secularization of Mission San Luis Rey, Mission San Juan Capistrano, and Mission San Diego de Alcalá. During the Mexican period, former Presidio soldiers became civilian residents, the Pueblo of San Diego was established, and transportation routes were expanded. During the 1820s, the region's economic activity centered on agriculture and livestock-raising for subsistence and localized markets, and hide and tallow production for the international market (Pourade 1961; Sherman 2001).

After years of political instability and several failed efforts to secularize the missions, in 1834 Governor José Figueroa issued a proclamation defining the terms of the secularization redistribution of mission lands that would occur over the following 2 years. This redistribution resulted in the distribution of approximately 500 private rancho land grants, mainly to officials and retired soldiers (Rawls and Bean 2003).

American Period

Mexico's defeat in the Mexican-American War in 1848 initiated the American period, when Mexico ceded California to the United States under the Treaty of Guadalupe Hidalgo. Subsequently, land ownership by the Mexicans living in California became a matter of considerable legal wrangling. In principle, the Treaty of Guadalupe Hidalgo protected Californios' (residents of California prior to its acquisition by the United States) property. In practice, however, the legal process for vetting land claims that was set into motion by the Land Commission established in 1851, combined with the mounting debts of many rancho owners, allowed Americans and other newcomers to take possession of nearly all of the rancho lands originally granted to Californios. Much of the land that once constituted rancho holdings became public land, available for settlement by emigrants to California. The discovery of gold in the state, the conclusion of the Civil War, and the subsequent availability of free land through passage of the Homestead Act all resulted in an influx of people to California and the San Diego region after 1848. California's importance to the country as an agricultural area began in the latter half of the nineteenth century and was subsequently supported by the construction of connecting railways for the transportation of people and goods.

The completion of a transcontinental railroad connection to San Diego in the mid-1880s inaugurated the first land boom and saw the City of San Diego's population soar to over 35,000 in a few short years. The boom was felt throughout the region in the form of many newly formed towns and communities. Thousands of people came to the county to take advantage of the possibilities of the region. Paramount to the quest to develop the area was water acquisition, and late nineteenth century San Diego became a major focal point of dam construction in the world (Pryde 1984).

By the end of the 1880s, however, the "boom" had become a "bust" as banks failed, land prices plummeted, and speculation could not be sustained by true and beneficial economic growth. Thousands of people left the region, abandoning their significantly devalued properties to the tax assessors. However, not all of them left; many remained to form the foundations of many small pioneering communities across the county. These families practiced dry farming, planted orchards, raised livestock, built schools and post offices, and created a life for themselves in the valleys and mesas of San Diego County (Griffin and Weeks 2004).

2.2.3.3 Historic Land Use in the PAL

Review of historical maps, aerial images, and documents reveals that the PAL was subject to limited development between the nineteenth and middle twentieth centuries. After a short period of mining in the late twentieth century, no additional development has occurred in the PAL.

During the late nineteenth century, a rockfill dam was designed by E. S. Babcock and built to create the Lower Otay Lake just upstream of the PAL. Upon completion in 1897, the dam was 150 feet tall and was the tallest rockfill dam in the world. In 1916 after heavy rains, the dam breached and a 20-foot-high wall of water made its way over the PAL and down the valley (Hill 2002). The flooding left many of the inhabitants of the Otay Valley homeless and at least 20 people dead (United States Navy 1916). In some areas, it was reported that the flooding removed fine sediments on the valley floor, leaving only gravel (Pourade 1965). The dam was replaced by a concrete arch gravity dam in 1918 (Hill 2002).

Starting in the early twentieth century, commercial sand and gravel mining companies began to operate in the Otay Valley. The sand and gravel obtained from the valley was used for paving, laying foundations, and mixing asphalt and concrete. By the middle twentieth century, several companies

were operating extensive mining operations in the Otay Valley (Schoenherr 2009). Between 1971 and 1981, mining operations occurred within the PAL (NETR Online 1971, 1981). Following the completion of the mining operations, no substantive development appears to have occurred within the PAL.

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Chapter 3
Literature Review and Methods

Background research and field studies were conducted in compliance with CEQA as amended (PRC §21000 et seq.), pursuant to the Guidelines for Implementation of the California Environmental Quality Act (CCR Title 14 §15000 et seq.), and in accordance with industry standards for similar projects in San Diego County. The effort to identify cultural resources in the project study areas included records searches of previous cultural resource investigations and recorded sites; background research and a review of literature relevant to the prehistory, ethnography, and history of the study area; consultation with the NAHC and Native Americans; and site visits.

3.1 Cultural Resources Record Search

The South Coastal Information Center at San Diego State University conducted a record search on September 11, 2018. The South Coastal Information Center is part of the California Historical Resources Information System, which serves as the repository for cultural resources records in the state of California. The records search was undertaken to identify previously documented cultural resources within a half-mile radius of the PAL. Also included in the search were those cultural resources studies that have been conducted inside or within 0.5 mile of the PAL.

3.1.1 Previously Recorded Resources within or Adjacent to the PAL

The literature review revealed that 101 cultural resources have been documented within a half-mile of the PAL. Of those 101 resources, only 17 resources intersect with the PAL (P-37-004728, P-37-004732, P-37-004733, P-37-004735, P-37-007212, P-37-008649, P-37-010875, P-37-014566, P-37-014575, P-37-014583, P-37-014585, P-37-015386, P-37-015391, P-37-031365, P-37-031366, P-37-032254, and P-37-034106). These 17 include 11 prehistoric sites (all are lithic scatters), five prehistoric isolates (two of which were collected previously), and one historic corral. A brief summary of each resource within a half-mile of the PAL is presented below (Table 3-1).

Table 3-1. Cultural Resources Located within 0.5 Mile of the PAL

Primary	Trinomial	Site Type	Description	Recorder(s)
P-37-004726	CA-SDI-004726	Archaeological site	Prehistoric lithic scatter	Waters and Berg, 1973
P-37-004727	CA-SDI-004727	Archaeological site	Prehistoric lithic scatter	Kraft, 2011; Waters and Berg, 1973
P-37-004728	CA-SDI-004728	Archaeological site	Prehistoric lithic scatter	Waters and Berg, 1973
P-37-004729	CA-SDI-004729	Archaeological site	Prehistoric lithic scatter	Kraft, 2011; Waters and Berg, 1973
P-37-004730	CA-SDI-004730	Archaeological site	Prehistoric lithic scatter	Kraft, 2011; Waters and Berg, 1973

Primary	Trinomial	Site Type	Description	Recorder(s)
P-37-004732	CA-SDI-004732	Archaeological site	Prehistoric lithic scatter	Blotner, 2010; Waters and Berg, 1973
P-37-004733	CA-SDI-004733	Archaeological site	Prehistoric lithic scatter	Waters and Berg, 1973
P-37-004734	CA-SDI-004734	Archaeological site	Prehistoric lithic scatter	Waters and Berg, 1973
P-37-004735	CA-SDI-004735	Archaeological site	Prehistoric lithic scatter	Waters, 1973
P-37-004736	CA-SDI-004736	Unknown	Unknown	Waters, 1973
P-37-004737	CA-SDI-004737	Archaeological site	Prehistoric lithic scatter and historic debris	Kyle et al., 1993; Waters, 1973
P-37-004989	CA-SDI-004989	Archaeological site	Prehistoric lithic scatter	Smith, 1996; Waters, 1973
P-37-007212	CA-SDI-007212	Archaeological site	Prehistoric lithic scatter	Clowery, 2011; Blotnery, 2010; Kyle et al., 1993; Recon, 1989; Clark, 1981; Day and Hunter, 1979
P-37-007213	CA-SDI-007213	Archaeological site	Prehistoric lithic scatter	Thesken, 1979
P-37-007218	CA-SDI-007218	Archaeological site	Prehistoric lithic scatter	Thesken, 1979
P-37-008649	CA-SDI-008649	Archaeological site	Prehistoric lithic scatter	Blotner and Clowery, 2010; Smith, 1996; Ainsworth, 1981
P-37-009970	CA-SDI-009970	Archaeological site	Prehistoric lithic scatter	Thesken, 1982
P-37-009971	CA-SDI-009971	Archaeological site	Prehistoric lithic scatter	Thesken, 1982
P-37-009977	CA-SDI-009977	Archaeological site	Prehistoric lithic scatter	Collett et al., 1989; Kidder et al., 1984
P-37-009978	CA-SDI-009978	Archaeological site	Prehistoric lithic scatter	Shaver and Tuthill, 2004; Kidder et al., 1984
P-37-009979	CA-SDI-009979	Archaeological site	Prehistoric quarry	Kidder et al., 1984
P-37-009980	CA-SDI-009980	Archaeological site	Prehistoric lithic scatter	Blotner, 2010; Smith, 1996; Kidder et al., 1984
P-37-010155	CA-SDI-010155	Archaeological site	Prehistoric village site	Wilson, 2013; Shaver and Tuthill, 2010; Haynal et al., 1985; Hedges, 1983
P-37-010666	CA-SDI-010666	Archaeological site	Prehistoric quarry	Kyle, 1987
P-37-010667	CA-SDI-010667	Archaeological site	Prehistoric lithic scatter	Campbell, 1991; Kyle, 1986
P-37-010668	CA-SDI-010668	Archaeological site	Prehistoric quarry and lithic scatter, and historic cistern	AECOM, 2016; AECOM, 2013; Blotner and Clowery, 2010; Kyle, 1986; Thesken, 1979
P-37-010862	CA-SDI-010862	Archaeological site	Historic structure pads, trash scatter, and dump	Hector et al., 1987

Primary	Trinomial	Site Type	Description	Recorder(s)
P-37-010874	CA-SDI-010874	Archaeological site	Prehistoric quarry and lithic scatter	Kyle, 1989
P-37-010875	CA-SDI-010875	Archaeological site	Prehistoric lithic scatter	Elder, 2015; AECOM, 2013; Roy, 2013, Blotner, 2010; Kyle, 1987
P-37-011335	CA-SDI-011335	Built environment	Historic Lower Otay Lakes Filtration Plant	Schaefer, 1989
P-37-011370	CA-SDI-011370	Archaeological site	Historic trash scatter	Collett et al., 1989
P-37-011371	CA-SDI-011371	Archaeological site	Historic trash scatter	Collett et al., 1989
P-37-011375	CA-SDI-011375	Archaeological site	Prehistoric lithic scatter	Kraft, 2011; Ritz et al., 1989
P-37-011377	CA-SDI-011377	Archaeological site	Prehistoric lithic scatter	Kraft, 2011; Ritz et al., 1989
P-37-011380	CA-SDI-011380	Archaeological site	Prehistoric lithic scatter	Ritz et al., 1989
P-37-011381	CA-SDI-011381	Archaeological site	Historic trash scatter	Collett, 1989
P-37-011382	CA-SDI-011382	Archaeological site	Historic trash scatter	Ritz et al., 1989
P-37-011383	CA-SDI-011383	Archaeological site	Historic irrigation pipe	Ritz et al., 1989
P-37-011385	CA-SDI-011385	Archaeological site	Historic site of Brown Field Bombing Range	Blotner, 2010; Collett, 1989
P-37-012809	CA-SDI-012809	Archaeological site	Prehistoric village site	Hunt, 2004; Rosen, 1989
P-37-012876	CA-SDI-012876	Archaeological site	Prehistoric lithic and shell scatter	Huey and Campbell, 1991
P-37-012936	CA-SDI-012936	Archaeological site	Prehistoric lithic scatter	Hector, 1992
P-37-012940	CA-SDI-012940	Archaeological site	Prehistoric lithic scatter and rock alignments	Blotner, 2010; Smith, 1996; Rosen et al., 1992
P-37-012945	CA-SDI-012945	Archaeological site	Prehistoric artifact scatter	Shaver and Tuthill, 2004; Rosen et al., 1992
P-37-013456	CA-SDI-013456	Archaeological site	Prehistoric lithic scatter	Kyle et al., 1993
P-37-013457	CA-SDI-013457	Archaeological site	Prehistoric lithic scatter	Kyle et al., 1993
P-37-013458	CA-SDI-013458	Archaeological site	Prehistoric lithic scatter	Stropes, 2010; Kyle et al., 1993
P-37-013459	CA-SDI-013459	Archaeological site	Historic trash scatter	Kyle et al., 1993
P-37-013460	CA-SDI-013460	Archaeological site	Historic trash scatter	Kyle et al., 1993
P-37-013461	CA-SDI-013461	Archaeological site	Prehistoric lithic scatter	Kyle et al., 1993
P-37-014535	-	Isolate	Prehistoric scraper	Smith, 1996
P-37-014536	CA-SDI-021110	Archaeological site	Prehistoric lithic scatter	Blake and Tsunoda, 2014; Smith, 1996
P-37-014537		Isolate	Prehistoric scraper	Smith, 1996
P-37-014538		Isolate	Prehistoric scraper	Smith, 1996
P-37-014539		Isolate	Prehistoric scraper and flake	Smith, 1996

Primary	Trinomial	Site Type	Description	Recorder(s)
P-37-014563	CA-SDI-014196	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014564	CA-SDI-014197	Archaeological site	Prehistoric lithic scatter	Shaver and Tuthill, 2004; Smith, 1996
P-37-014565	CA-SDI-014198	Archaeological site	Prehistoric lithic scatter	Shaver and Tuthill, 2004; Smith, 1996
P-37-014566	CA-SDI-014199	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014567	CA-SDI-014200	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014568	CA-SDI-014201	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014569	CA-SDI-014202	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014573	CA-SDI-014206	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014574	CA-SDI-014207	Archaeological site	Prehistoric lithic scatter	Raven-Jennings, 1996
P-37-014575	CA-SDI-014208	Archaeological site	Prehistoric lithic scatter and groundstone	Smith, 1996
P-37-014576	CA-SDI-014209	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014579	CA-SDI-014212	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014580	CA-SDI-014213	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014581	CA-SDI-014214	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014582	CA-SDI-014215	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014583	CA-SDI-014216	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014584	CA-SDI-014217	Archaeological site	Prehistoric ceramic scatter	Blotner, 2010; Smith, 1996
P-37-014585	CA-SDI-014218	Archaeological site	Prehistoric lithic scatter	Blotner, 2010; Smith, 1996
P-37-014586	CA-SDI-014219	Archaeological site	Prehistoric lithic scatter	Smith, 1996
P-37-014587	CA-SDI-014220	Archaeological site	Prehistoric lithic scatter	Blotner, 2010; Smith, 1996
P-37-015200	-	Isolate	Prehistoric tool and core	Huey et al., 1991
P-37-015380	-	Isolate	Prehistoric flake (collected)	Kyle and Tift, 1993
P-37-015381	-	Isolate	Prehistoric flake (collected)	Kyle and Tift, 1993
P-37-015382	-	Isolate	Prehistoric two flakes (collected)	Kyle and Tift, 1993
P-37-015383	-	Isolate	Prehistoric core and flake	Kyle and Tift, 1993
P-37-015384	-	Isolate	Prehistoric two flakes	Kyle et al., 1993
P-37-015385	-	Isolate	Prehistoric flake (collected)	Kyle et al. 1993
P-37-015386	-	Isolate	Prehistoric two flakes (collected)	Kyle et al. 1993
P-37-015387	-	Isolate	Prehistoric flake (collected)	Kyle et al. 1993
P-37-015388	-	Isolate	Prehistoric flake (collected)	Kyle et al. 1993

Primary	Trinomial	Site Type	Description	Recorder(s)
P-37-015391	-	Isolate	Prehistoric flake (collected)	Kyle et al. 1993
P-37-019182	-	Isolate	Prehistoric biface fragment and debitage	Kyle, 2000
P-37-031362	-	Isolate	Prehistoric core	Blotner, 2010
P-37-031363	-	Isolate	Prehistoric flake	Blotner, 2010
P-37-031364	-	Isolate	Prehistoric core	Blotner, 2010
P-37-031365	-	Isolate	Prehistoric flake	Blotner, 2010
P-37-031366	-	Isolate	Prehistoric flake	Blotner, 2010
P-37-031367	-	Isolate	Prehistoric two flakes	Blotner, 2010
P-37-031368	-	Isolate	Prehistoric flake	Blotner, 2010
P-37-031741	CA-SDI-020163	Archaeological site	Prehistoric artifact scatter	Stropes, 2010
P-37-031947	-	Isolate	Prehistoric flake	Tsunoda, 2011
P-37-032253	CA-SDI-020442	Archaeological site	Prehistoric lithic scatter	Tyberg, 2011
P-37-032254	-	Built environment	Historic corral	Tyberg, 2011
P-37-032255	CA-SDI-020443	Archaeological site	Prehistoric lithic scatter	Tyberg, 2011
P-37-034105	-	Isolate	Prehistoric core	Dalope and Manchen, 2013
P-37-034106	-	Isolate	Prehistoric biface and core	Dalope, 2013

*Shaded sites intersect with or fall within the PAL

3.1.2 Previous Studies

The record search also revealed that 59 studies have been conducted within a half-mile of the PAL. Of these, 21 have occurred within at least a portion of the PAL (see Table 3-2). A list of studies occurring within half-mile but outside the PAL can be found in Appendix A.

Table 3-2. Previous Cultural Resources Studies Conducted within the PAL

Report No.	NADB No.	Year	Title	Author(s)
SD-00122	1120122	1980	An Archaeological Survey of the Otay Ranch Proposed Barrow Pit Locations San Diego County.	Banks, Thomas J.
SD-01619	1121619	1979	Proponents Environmental Assessment Miguel to Tijuana Interconnection Project 230 KV Transmission Line	WESTEC Services, Inc.
SD-02690	1122690	1993	Final Cultural Resources Evaluation of the 23,088 Acre Otay Ranch, San Diego County	Carrico, Richard
SD-02945	1122945	1994	Cultural Resource Survey and Test of Five Sites for the Otay Water District Central Area and Otay Mesa Interconnection Pipeline Alignments	Kyle, Carolyn, E. and Dennis R. Gallegos
SD-03156	1123156	1996	Results of an Archaeological Survey at the Otay Valley Parcel of the Otay Ranch	Smith, Brian F.

Report No.	NADB No.	Year	Title	Author(s)
SD-03266	1123266	1996	Archaeological Survey for the Joint Task Force-Six Border Road Repair Project, Otay Mountain, California	Gross, Timothy, Ruth Alter, and Mary Robbins-Wade
SD-04657	1124657	1992	Draft Program Environmental Impact Report, Otay Ranch	Ogden Environmental and Energy Services Co., Inc.
SD-04853	1124853	1983	Volume I Cultural Resource Data Recovery Program of the Proposed Miguel-Tijuana 230 kV International Interconnection Project San Diego, Co.	Cultural Systems Research, Inc.
SD-05379	1125379	1988	Cultural Resource Inventory Number 2 for Twenty-Seven Drill Sites within the Amir Indian Rose Area Lease	Gallegos, Dennis and Andrew Pigniolo
SD-06805	1126805	1987	Archaeological Overview and Planning Document for the Proposed Rancho Otay Project	Berry, Stanley
SD-08068	1128068	2000	Cultural Resources Test Results for the Otay Mesa Generating Project	Gallegos, Dennis R. and Jeffery Flenniken
SD-08167	1128167	2003	Notice of Preparation of a Draft Environmental Impact Report, Otay Second Pipeline Improvement Program	City of San Diego
SD-08421	1128421	2003	Archaeological Monitoring for Salt Creek Gravity Sewer Interceptor Phase IV Project	Pierson, Larry J.
SD-13626	1133626	2011	TCM Access Road Grading Project, Cultural Resources Inventory Report	Morgan, Nichole B.
SD-13636	1133636	2010	Cultural Resources Monitoring Results for Transmission Access Road Grading, South 1, Otay Mesa/Chula Vista, San Diego County, California	Whitaker, James E.
SD-14334	1134334	2013	Letter Report: ETS 25033 - Cultural Resources Survey for the Replacement of Pole Z81044, Community of Otay Mesa, San Diego County, California - IO 7011103	Wilson, Stacie
SD-14505	1134505	2013	Letter Report: ETS 25033 - Cultural Resources Monitoring Report for Replacement Activities for Pole P204015s, Community of Otay Mesa City of San Diego, California - IO 7011103	Wilson, Stacie
SD-15229	1135229	2013	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)	Tennesen, Kristin

Report No.	NADB No.	Year	Title	Author(s)
SD-15469	1135469	2015	ETA #29410, Cultural Resources Monitoring for TL 649, Replace Pole and Switch, Z31724 Project, San Diego County, California (HDR #255180)	Tennesen, Kristin

3.2 Field Methods

Karolina Chmiel and Kent Smolik performed a pedestrian survey of the project's PAL on September 25, 2018 and September 26, 2018, which included the trails and central portions of the PAL. The PAL was expanded in April 2019 to include portions of Salt Creek for potential restoration. On April 9, 2019, Nara Cox and Jordan Menvielle performed a pedestrian survey of additional Salt Creek areas added to the PAL. In September 2019, the PAL was expanded yet again to include an additional 69 acres to account for additional mitigation needs. The survey was conducted on September 11 and September 12, 2019, by Nara Cox and Jordan Menvielle. Approximately 20 acres was added to the mitigation bank area in June 2021. The survey was conducted by Karolina Chmiel and Lauren Downs on June 29, 2021. During the surveys, ICF archaeologists carefully inspected the ground surface and road- and stream-cuts to identify artifacts, features, and infrastructure and assess the local geomorphic context. Pedestrian survey transects were spaced at 15-meter intervals when vegetation and topography permitted. When revisiting documented resources or recording previously undocumented resources, pedestrian survey transects were spaced at 5-meter intervals when vegetation and topography permitted. Field observations were recorded on standard field survey forms, and any resources or important landscape features were documented via photography and handheld global positioning system units.

3.3 Native American Correspondence

On September 18, 2018, ICF contacted the NAHC requesting a review of its Sacred Lands Files. The NAHC responded on September 20, 2018, stating that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the study area. The NAHC also provided a list of Native American individuals and organizations that may have knowledge of cultural resources in the study area and recommended contacting the representatives from the following Native American groups:

- Ewiiaapaayp Band of Kumeyaay Indians
- La Posta Band of Diegueno Mission Indians
- Manzanita Band of Kumeyaay Nation
- Sycuan Band of the Kumeyaay Nation
- Viejas Band of Kumeyaay Indians
- Campo Band of Diegueno Mission Indians
- Jamul Indian Village
- Kwaaymii Laguna Band of Mission Indians

- Kumeyaay Cultural Repatriation Committee
- Iipay Nation of Santa Ysabel

On October 8, 2018, ICF sent due diligence outreach letters to all 12 individuals and organizations identified by the NAHC. The letters described the proposed project and requested information on cultural resources in or nearby the study area. A letter was received on October 22, 2018 from the Viejas Band of Kumeyaay Indians requesting that a Kumeyaay Cultural Monitor be on site for ground-disturbing activities and that the Band be informed of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains. To date, no additional replies to these letters have been received. The Native American correspondence is documented in Appendix B.

ICF archaeologists conducted pedestrian surveys on September 25, 2018; September 26, 2018; April 9, 2019; September 11, 2019; September 12, 2019; and June 29, 2021. The PAL measures 240.17 acres, and 219.24 acres were surveyed. Dense vegetation and standing water in Salt Creek and Otay River precluded surveys in some areas (20.93 acres). Seventeen previously recorded archaeological resources are located within the PAL, and the pedestrian survey relocated artifacts associated with ten of the resources. One newly identified archaeological site and five newly identified isolated artifacts were recorded during the survey.

4.1 Landform Summary

The PAL is at the base of the Otay Valley, where it widens just downstream of a confined bedrock canyon. Much of the PAL is on a series of flat to gently sloping alluvial terraces. The surface-exposed sediments on the higher elevation terraces appear to have undergone both pedogenesis (i.e., rubified soil) and some level of deflation (i.e., a high frequency of coarse sands and small gravels). The lower elevation terraces tended to show no visible indicators of pedogenesis at the ground surface—although observation of previous cuts on these terraces reveals a rubified subsoil—and had a higher frequency of fine-grained sediment than the higher elevation terraces. The central portion of the PAL has been extensively excavated (see below for additional detail) and has an undulating and irregular topography. The southern portion of the PAL contains a water channel and associated floodplains. It is questionable as to whether the channel predates the ground disturbance that has occurred in the PAL because it appears to have been redirected around the excavated area and inhabits a location that is at a higher elevation than the excavated area.

As indicated previously in Chapter 2, *Setting*, the PAL has been subject to at least two major anthropogenic landscape-altering events during the historic period. The first event, the breach of the Otay Dam, occurred just upstream of the PAL in 1916. The second event, a sand and gravel mining operation, occurred within the PAL between 1971 and 1981. The Otay Dam breach resulted in extensive flooding throughout the Otay Valley and resulted in the removal of fine sediments in some portions of the valley. No obvious landscape features associated with the dam breach were identified during the survey.

The mining operation resulted in widespread excavation and material sorting within the central portion of the PAL. Based on observations and measurements of cut-wall exposures obtained during the pedestrian survey, excavations associated with the mining operation occurred in the central portion of the PAL and ranged in depth from 6 to 10 feet below the pre-mining ground surface (Figure 4-1). Large push piles were observed throughout the mining area (Figure 4-2). The extent of the mining operations can be clearly observed using bare earth light detection and ranging imagery (LiDAR) (Figure 4-3) as well as historic aerials. An aerial image from April 1981 (UCSB 2019) shows the early stages of the mining operation, with ground stripping and creation of ponds and roads within the PAL (Figure 4-4).

Figure 4-1. Overview of Cut Banks within PAL

Figure 4-2. Overview of Push Piles Resulting from Mine Operations

4.2 Ground Surface Visibility

Ground visibility within the PAL varied from area to area and year to year due to heavy rains in winter 2018/spring 2109. In September 2018, ground visibility ranged from 10 to 70% along the upper terraces where the trail portion of the project is located. Ground visibility ranged from 10 to 50% in the central portion of the PAL in 2018. In April 2019, after a heavy rainy season, ground visibility in the northern portion of the PAL and near Salt Creek ranged from 0 to 5% due to dense vegetation cover. In September 2019, ground visibility averaged 50 to 60% along the upper terraces and 0 to 20% near the Otay River. In June 2021, ground visibility averaged about 10% due to dense vegetation cover. In areas of dense vegetation, the survey focused on areas of exposed ground due to ant colonies, rodent burrows, or roads. The banks of Salt Creek and Otay River were not surveyed due to water and heavy marsh vegetation. Survey coverage is detailed in Figure 4-5.

4.3 Resource Summaries

Seventeen previously recorded archaeological resources are located within the PAL, and the pedestrian survey relocated artifacts associated with ten of the resources (P-37-004732, P-37-004728, P-37-004735, P-37-010875, P-37-014566, P-37-014575, P-37-014585, P-37-031366, P-37-032254, and P-37-034106). The pedestrian survey did not relocate artifacts for portions of seven previously documented sites; although, in some instances, the PAL only intersected with a very small portion of the resource. No attempt was made to relocate portions of sites outside of the PAL. The pedestrian survey did not relocate portions of seven resources that intersect with the PAL (P-37-004733, P-37-007212, P-37-008649, P-37-014583, P-37-015386, P-37-015391, and P-37-031365). In addition to the previously recorded resources, one archaeological site and five isolated artifacts were newly identified during the survey. Figure C-1 (see confidential appendix C) shows the locations of the cultural resources documented within the PAL. Appendix D includes an archaeological resource form for each recorded resource.

Two cultural resource sites (P-37-008649 and P-37-014579) have been previously recorded within 10 meters of the PAL, and efforts were taken during the pedestrian survey to ensure existing site boundaries did not need to be extended within the PAL. No artifacts were identified in the PAL associated with these two sites.

4.3.1 P-37-004728 / CA-SDI-4728

This site was originally recorded by M. Waters and G. Berg in 1973 as a lithic scatter consisting of tools, cores, and flakes over a 220-foot-long ridge line. Waters and Berg specified that there were two loci, one at the top of the ridge and one below. The site was revisited by Brian F. Smith in 1996 and the site boundary was expanded to measure 174 meters (northeast/southwest) by 76 meters (northwest/southeast). No information was provided regarding site components at that time.

In September 2019, ICF archaeologists revisited the southwestern 30 (north/south) by 81 (east/west) meters of the plotted location of the site that intersects with the PAL. The surveyed area is downslope of the core of the site, which lies on a ridge overlooking the river valley. The valley in this area has apparently been used for agricultural purposes historically and is now densely vegetated with tall grasses and Russian thistle. Two lithics (one medium grained grey metavolcanic

flake, and one flaked and battered very fine grained green metavolcanic split cobble) were identified within cleared areas at the western edge of the site.

4.3.2 P-37-004732 / CA-SDI-4732

This site was originally recorded by M. Waters in 1973 as a lithic scatter consisting of cores, flakes, scrapers, and choppers over a 152- by 152-meter area. The site was revisited by Brian F. Smith in 1996, and the site boundary was modified to 152 by 132 meters. The site was revisited again by HDR in 2010, at which point two metavolcanic flakes were identified approximately 65 meters southeast of the previously recorded site boundary.

In 2019, ICF archaeologists revisited the site. As drawn, the boundary encompasses a steep-sided hill with a flat finger ridge and graded access road at the top. Within and around the ridge top, three unmodified flakes, one edge modified flake, one edge modified split cobble, and one retouched chopper exhibiting use-wear were identified. Several push piles were noted, as was dense ground cover resulting from recent heavy rains.

4.3.3 P-37-004733 / CA-SDI-4733

This site was originally recorded by M. Waters in 1973 as a lithic scatter consisting of tools and flakes over a 200- by 100-foot (61- by 30-meter) area. The site was revisited by Brian F. Smith in 1996, and the site boundary was expanded to measure 88 meters (north/south) by 174 meters (east/west). No information was provided regarding site components at that time.

In September 2019, ICF archaeologists revisited the westernmost 24 (north/south) by 84 (east/west) meters of the site as it intersected with the PAL. Review of historic aerials shows that a dirt road was cut into hillside in this location after 1953 but before 1964, creating an artificial slope (NETR 1953, 1964). One large old stockpile was noted directly at the southwestern edge of the site, as was other evidence of mechanical earthmoving (pushpiles and drag marks) within the surveyed area. The old stockpile was densely overgrown and had settled indicating that it was deposited years, if not decades, ago. No artifacts were identified within the surveyed portions of the site as it intersects with the PAL.

4.3.4 P-37-004735 / CA-SDI-4735

This site was originally recorded by M. Waters in 1973 as a lithic scatter consisting only of flakes over a 61- by 15-meter area. The site was revisited by Brian F. Smith in 1996, and the site boundary was expanded to measure 213 (north/south) by 85 meters (east/west). Only a 79- by 15-meter portion of the site intersects with the PAL. Within the PAL, the site consists of an existing graded road, and an overgrown drainage. Review of historic aerials shows that a dirt road was cut into the drainage after 1953 but before 1964 (NETR 1953, 1964). Vegetation begins obscuring the road in the 1990s to early 2000s aerials (NETR 1994, 1996, 2002).

One very large old stockpile was noted directly west of the site, as was other evidence of mechanical earthmoving (pushpiles and drag marks) within the surveyed drainage. The floor of the drainage was densely overgrown, and the disturbances had settled, indicating that it was disturbed years, if not decades, ago. One broken medium grained black metavolcanic flake was identified within the site boundary, in a small game trail that allowed for a clear view of the ground.

Figure 4-3
Extent of Mining Operations in the PAL
Otay River Restoration Project; City of Chula Vista Mitigation Bank Expansion and Trail Alignment

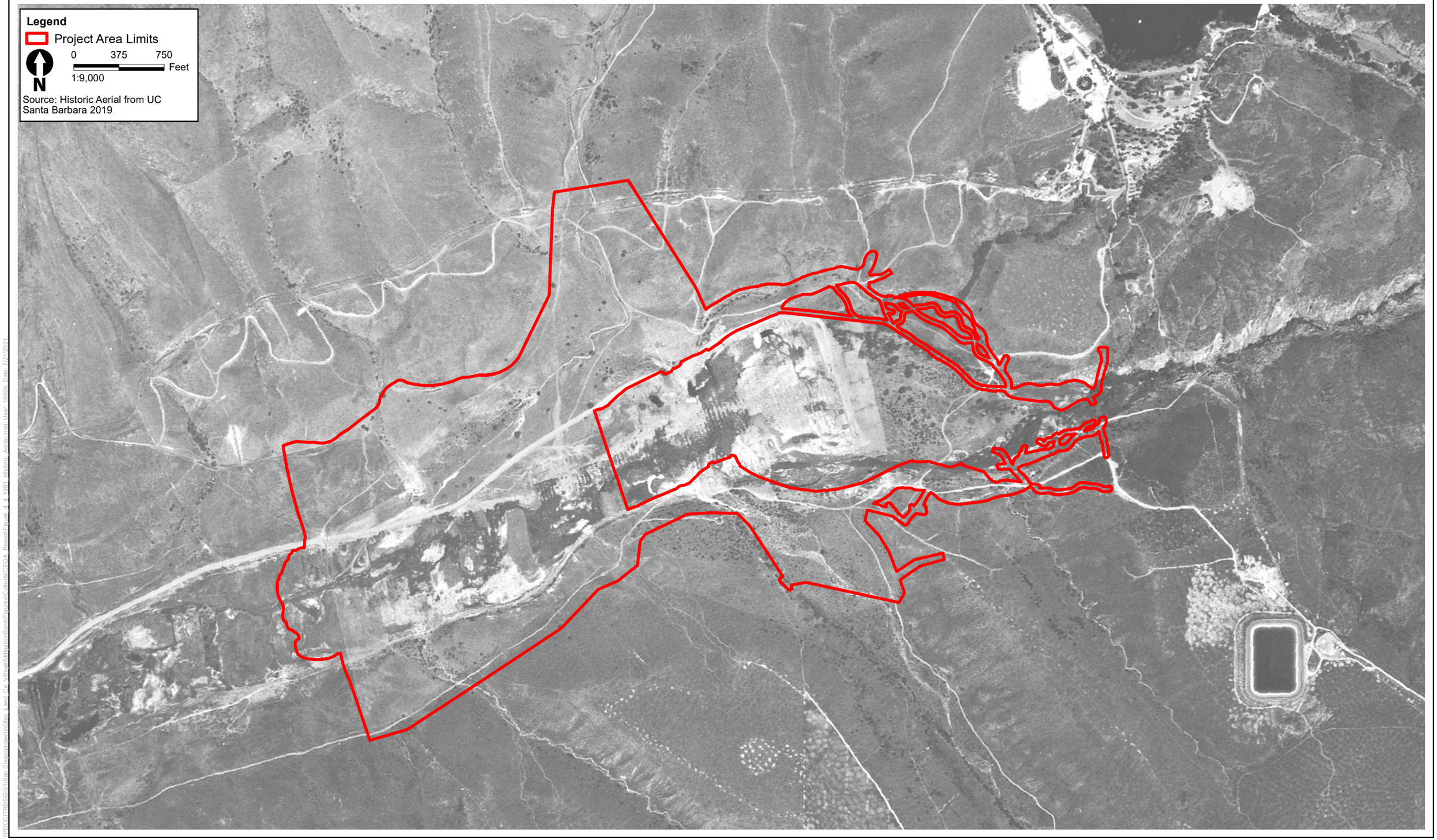

Figure 4-4
1981 Historic Aerial of PAL with Mining Operation
Otay River Restoration Project; City of Chula Vista Mitigation Bank Expansion and Trail Alignment

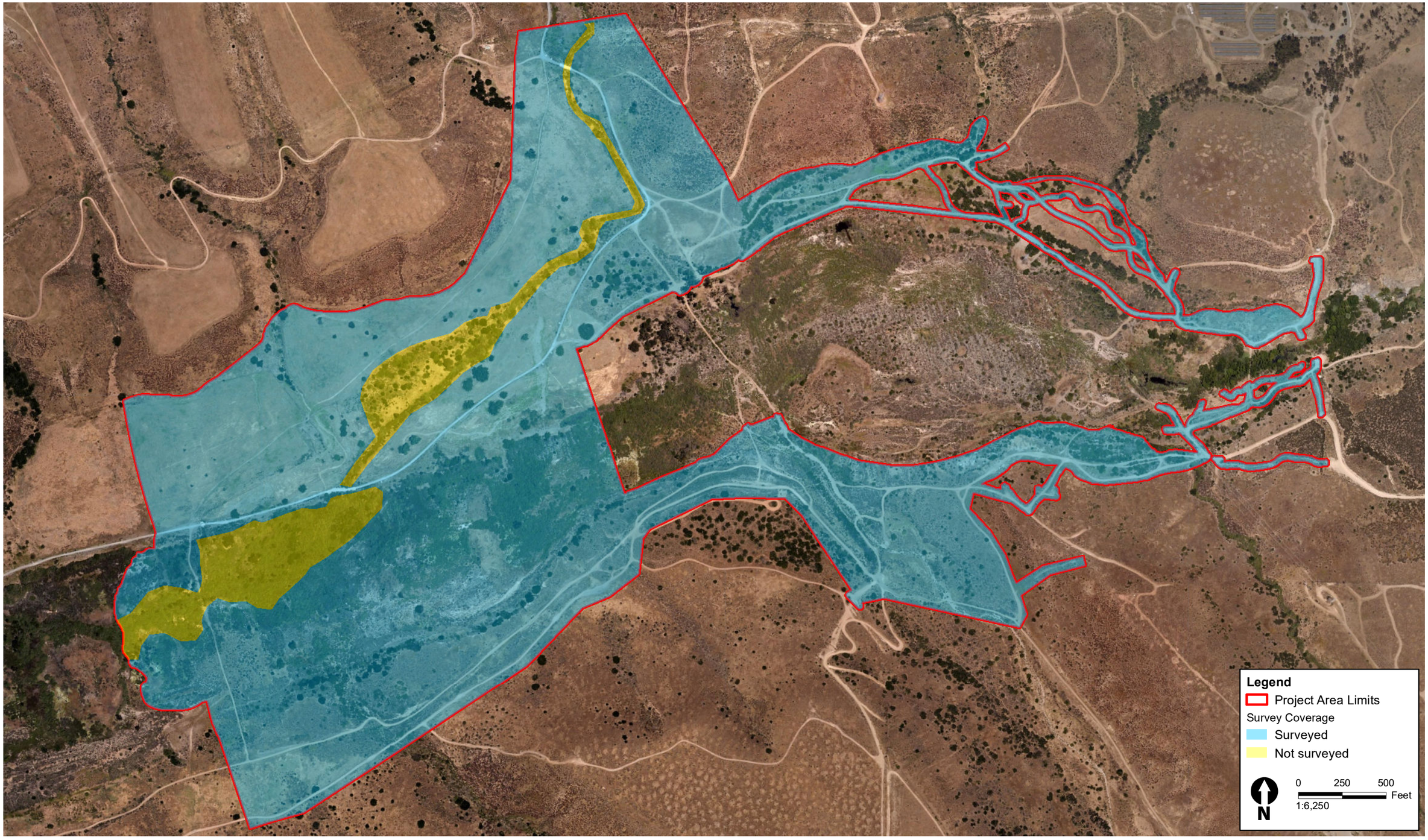

Figure 4-5
Survey Coverage
Otay River Restoration Project; City of Chula Vista Mitigation Bank Expansion and Trail Alignment

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4.3.5 P-37-007212 / CA-SDI-7212

This site was originally recorded by S. Day and R. Hunter in 1979 as a disturbed lithic scatter over 10 by 15 meters. The site was revisited in 1981 by N. Clark and expanded to 55 by 30 meters to include additional observed artifact types. A subsurface component was suggested at that time. Three test units were placed, and artifacts were recovered up to a depth of 60 centimeters. Additionally, the northern "lobe" was noted as destroyed due to road grading in 1981. In 1989 the site was revisited by RECON archaeologists, who reported a single flake and noted the site was destroyed within the survey area. In 1993, Gallegos and Associates revisited the site location, whereupon several flakes, fire-affected rock, and a core were observed on the ground surface and within a road cut. An intact subsurface deposit within the remaining portion of the site was suggested at that time. In 2010, HDR archaeologists expanded the site an additional 14 meters northeast due to the discovery of a metavolcanic flake. In 2011, HDR excavated two shovel-test probes within the existing site boundaries, and both probes were negative for subsurface resources.

In 2018, ICF archaeologists revisited the northern 76- (east/west) by 45- (north/south) meter portion of the site, which intersects with the PAL. In addition to containing an intermittent creek, this portion is graded for use as an access roads. No artifacts or features were observed within the intersecting portion of the site during the 2018 survey effort. Ground visibility varied within the surveyed portion of the site from 100% within graded access roads to less than 40% in dense vegetation.

4.3.6 P-37-008649/ CA-SDI-8649

This site was originally recorded by P. Ainsworth in February 1981 as a sparse lithic scatter in an area measuring 80 by 20 meters. It was updated in July 1981 to include 35 lithic artifacts over an area measuring 75 by 60 meters. The site was tested in 1981 with five artifacts recovered at a 0–10 centimeter depth subsurface. The site was updated again in 1996 by Brian F. Smith and in 2010 by HDR, and each time the site boundary was expanded to include additional artifacts. The site is described as being located on a steep ridge.

In 2021, ICF archaeologists revisited the southern 21-meter (east/west) by 12-meter (north/south) portion of the site, which intersects with the PAL. This portion of the site is located on a flat terrace, below the steep ridge. No artifacts or features were observed within the intersecting portion of the site during the 2021 survey effort. Ground visibility was approximately 30–40% due to vegetation. Based on the site description, it is likely that artifacts associated with this site are located farther north,

4.3.7 P-37-010875/ CA-SDI-10875

This site was originally recorded by Gallegos and Associates archaeologists in 1987 as a sparse lithic scatter covering a 304- by 150-meter area. In 1996, Brian F. Smith archaeologists revisited the site and expanded the boundary to measure 640 by 259 meters, although no data regarding the site components was included in the 1996 site record. HDR archaeologists resurveyed the site in 2010. At that time numerous artifacts were identified within the 1996 site boundary. In 2013 the site was revisited by AECOM archaeologists; however, no cultural materials were observed. Installation of a pole within the site boundaries was also monitored by AECOM archaeologists in 2013; no cultural deposits were observed at that time.

ICF archaeologists visited the northeast portion of the site in 2015 and identified two artifacts within the surveyed portion. The surveyed portion of the site was located within the boundaries of previous mining activities. At the time, ICF recommended that the portion of the site located within their survey area was not eligible for listing in the CRHR because of a paucity of artifacts (Elder 2015). In 2018 and 2019, ICF archaeologists revisited portions of the site, which intersected with the current study area. Only one location of artifacts was identified within the site boundaries of P-37-010875 and within the PAL. The artifact scatter was observed on a small terrace above and to the south of the previous mining activity, and it measured roughly 80 by 25 meters. Approximately 30 artifacts consisting of cores, groundstone, tested cobbles, and debitage were identified in that area. One primary flake was identified in the eastern portion of the site in 2019. No other artifacts were found within the surveyed portions of P-37-010875.

4.3.8 P-37-014566/ CA-SDI-14199

This site was originally recorded in 1996 by Brian F. Smith archaeologists as a lithic scatter including 30+ flakes, 20+ scrapers, 10 choppers, 5 hammerstones, 20 cores, and 20+ pieces of debitage.

ICF archaeologists revisited portions of the site in 2018 and 2019. The eastern half of the site, an 11-acre portion, is located within the PAL on a series of alluvial terraces and above the Otay River. The main concentration of artifacts was located on a small terrace above the mining activity. Several artifacts (core and flakes) were located within the boundaries of the old mining activity and appeared to have been transported there by erosion. Approximately 20 flakes were found to be eroding down from a steep slope into the old mining area. Artifact density in the previously undisturbed terrace area appeared to be about 10 flakes/debitage in a 15-square-meter area. Lithics found within the surveyed portions of the site consisted of cores, flakes, debitage, and one retouched flake tool.

4.3.9 P-37-014575 / CA-SDI-14208

This site was originally recorded by Brian F. Smith in 1996 as a lithic scatter consisting of 15+ flakes, 1 mano, and an unspecified number of scrapers over a 122-meter (north/south) by 290-meter (east/west) area.

In September 2019, ICF archaeologists revisited the southeastern 50 (north/south) by 30 (east/west) meters of the plotted location of the site. The surveyed area was densely vegetated with grasses, and no artifacts were identified within the surveyed area north of the maintained road that bisects the site. One modified primary flake, identified as a scraper, was observed on the southern shoulder of the road within the site boundary.

4.3.10 P-37-014583 / CA-SDI-14216

This site was originally recorded in 1996 by Brian F. Smith as a lithic scatter including retouched flakes and 20+ flakes over a 34- by 30-meter area. In 2019, ICF archaeologists revisited the plotted location of the site; no cultural resources were identified in the area at the time.

4.3.11 P-37-014585 / CA-SDI-14218

This site was originally recorded by Brian F. Smith archaeologists in 1996 as a lithic scatter including 50+ flakes, 10+ scrapers, and an unspecified number of cores over a 152- by 91-meter area. The site location was revisited in 2010 by HDR archaeologists, but no cultural materials were observed at that time.

The site was revisited by ICF archaeologists in 2018 and 2019. One concentration of artifacts in the southeast portion of the site was noted at the time. Ten flakes, a core, and one groundstone fragment were found in an area measuring 30 by 12 meters. In addition, three artifacts (two possible expedient tools or cores and one flake) were identified in the northeast section of the site, near a dirt access road. Ground visibility was approximately 80% at the time of survey, and no additional artifacts were noted within the site boundaries. The site boundary was reduced to better reflect the 2018–2019 finds.

4.3.12 Isolate P-37-015386

This isolate was originally recorded by Gallegos and Associates in 1993 as two metavolcanic flakes identified within the Otay River Valley floodplain. The artifacts were collected at that time. No additional artifacts were identified in the vicinity of the isolate during the 2018 survey effort.

4.3.13 Isolate P-37-015391

This isolate was originally recorded by Gallegos and Associates in 1993 as one metavolcanic flake identified within the Otay River Valley floodplain. The artifact was collected at that time. No additional artifacts were identified in the area during the 2018 survey effort.

4.3.14 Isolate P-37-031365

This isolate was recorded by HDR archaeologists in 2010 to include one fine-grained metavolcanic retouched flake with cortex and one fine-grained metavolcanic core fragment; both artifacts were identified within the graded access road. The artifacts were not relocated during the 2018 survey effort.

4.3.15 Isolate P-37-031366

This isolate was originally recorded by HDR archaeologists in 2010, it was described as a fine-grained metavolcanic flake that was broken in two (two-piece refit). The described artifact was not relocated during survey efforts; however, one previously unrecorded very fine-grained noncortical flake was discovered approximately 3 meters north of the previously recorded isolate. An isolate is defined as two or fewer artifacts within 30 meters. As such, the new artifact will be added to the existing isolate record. This area is within an existing continually graded access road. It is likely that the disturbance associated with grading of the road has obscured the originally recorded artifact.

4.3.16 P-37-032254

This resource was recorded in 2011 by Brian F. Smith archaeologists as a historic corral associated with the Otay Ranch Farm Company. Brian F. Smith recommended the corral as a contributing, but

not significant, element of the Otay Ranch Farm Company ranch complex, as it is one of many such features scattered around Otay Ranch and is 3 miles from the complex itself (Smith 2011). The 2018 and 2019 pedestrian surveys relocated the described historic corral and found it to be as it was previously described in 2011. The enclosure is made mostly of milled lumber, with a few reused power pole sections and natural branches forming posts and struts. The gate is formed of ferrous metal pipe and twisted non-barbed wire fencing. Many of the details of the structure were obscured by dense overgrowth of mustard and grasses in 2019. A review of historic aerials shows the corral as early as 1953.

4.3.17 ICF-OH-P-001

This is a newly recorded by ICF in 2021 archaeological resource consisting of a sparse lithic scatter. The lithic scatter consists of five flakes located in a 14- by 7-meter area. All flakes were either dark green or black metavolcanic and typical of what was observed in the area. Ground visibility was approximately 50% due to dense vegetation and chaparral. The newly recorded site is located approximately 170 meters south of previously recorded resource P-37-010875, on a small flat terrace, overlooking a shallow drainage.

4.3.18 Isolate P-37-034106

This isolate was originally recorded by ASM Affiliates archaeologists in 2013 and consisted of one volcanic biface and one volcanic core, bifacially worked. Both were identified within the graded access road. Neither artifact was relocated in 2018. However, one metavolcanic flake was identified 14 meters northeast of the previous isolate location. The new artifact will be added to the existing isolate record.

4.3.19 Isolate ICF-OH-ISO-001

This resource consists of a single very fine-grained black metavolcanic primary flake. Cortex is present over 80% of the dorsal surface and the bulb of percussion shows an eraillure scar. The flake measures 7.5 centimeters (width) by 5.2 centimeters (length) by 1.2 centimeters (thickness) and was identified within an overgrown dirt road within the Otay Riverbed.

4.3.20 Isolate ICF-OH-ISO-002

This resource consists of a single very fine-grained green metavolcanic edge modified flake. The flake was likely utilized as a scraper. The edges are flaked unidirectionally forming a serrated edge along three margins and leaving the ventral surface relatively flat. Cortex is present over 5% of the dorsal surface. The flake measures 3.9 centimeters (width) by 5.5 centimeters (length) by 1.2 centimeters (thickness) and was identified within a dirt road on the south side of the Otay Riverbed.

4.3.21 Isolate ICF-OH-ISO-003

This resource consists of a single medium-grained black metavolcanic tertiary flake. The flake measures 2.2 centimeters (w) by 3.4 centimeters (length) by 0.6 centimeters (thickness) and was identified within a recently tilled open area on the north side of the Otay Riverbed.

4.3.22 Isolate ICF-OH-ISO-004

This resource consists of a shaped, bifacial mano exhibiting shouldering and was identified within a graded access road approximately 30 feet south of site boundary P-37-004733. The mano measures 14.5 by 12 centimeters. The mano is possibly not in-situ given the previous disturbance in the area (road construction, grading, 1980s mining activities) and could be related to P-37-004733. However, its being treated as an isolate as no artifacts were found between the mano and site P-37-004733.

4.3.23 Isolate ICF-OH-ISO-005

This resource consists of two isolated metavolcanic flakes located on the southwest side of a dirt access road. The first flake measures 3.2 centimeters (length) by 1.9 centimeters (width) by 1.2 centimeters (thickness). The second flake measures 2 centimeters (length) by 1.6 centimeters (width) by 0.5 centimeter (thickness).

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Chapter 5
Recommendations and Impact Analysis

5.1 Preliminary Significance Recommendations

Seventeen previously identified resources were recorded within the PAL, and the pedestrian survey relocated artifacts associated with ten of the resources. In addition, one archaeological resource and five isolated artifacts were newly identified during the survey efforts. This study did not survey portions of cultural resources outside of the limits of the PAL; therefore, all recommendations apply only to portions of the resource within the PAL. The Otay Land Company's and the City of Chula Vista's preferred management approach for cultural resources is avoidance and preservation incorporated into project design. Table 5-1 provides preliminary significance recommendations for all 23 recorded resources within the PAL. Resources are treated as potentially eligible for listing in the CRHR until formal evaluation. ICF will be conducting further subsurface exploration in areas of potential ground disturbance to determine if subsurface archaeological deposits exist in those areas. A treatment plan will be developed if subsurface deposits are identified.

A small portion of resource P-37-004728 intersects with the PAL. Within this area of intersection, two artifacts were located. The site was never tested or evaluated; therefore, it is assigned a moderate potential for significance due to the unknown potential for subsurface component or intact deposits.

Resource P-37-004732 was recorded as a lithic scatter, and the current study identified six artifacts within its boundaries. The site was never tested or evaluated; therefore, it is assigned a moderate potential for significance due to the unknown potential for subsurface component or intact deposits.

A small portion of resource P-37-004733 intersects with the PAL. No artifacts were identified within the portion of the site that intersects with the PAL. Review of historic aerials shows that a road was cut in this area after 1953, creating an artificial slope. Therefore, it is recommended that this portion of the site has low potential for contributing to the overall eligibility of the resource for inclusion in the CRHR due to loss of integrity and previous disturbance. Project components within this area will be contained within the vertical and horizontal limits of previous disturbance, with low chance of affecting previously undisturbed cultural deposits.

A small portion of resource P-37-004735 intersects within the PAL. One artifact was found within the surveyed portions of the site. Within the PAL, the site consists of an existing graded road, and an overgrown drainage. Review of historic aerials shows that a dirt road was cut into the drainage after 1953, and the current survey found evidence of historic earthmoving activities in the form of large push piles. Therefore, it is recommended that this portion of the site has low potential for contributing to the overall eligibility of the resource for inclusion in the CRHR due to loss of integrity and previous disturbance. Project components within this area will be contained within the vertical and horizontal limits of previous disturbance, with low chance of affecting previously undisturbed cultural deposits.

The northern portion of resource P-37-007212 was tested in 1981 and 2011, with no subsurface deposits located in 2011. The portion of the PAL within P-37-007212 consists of previously graded roads and stream channel improvements, and no artifacts were found during the survey. Therefore,

it is recommended that this portion of the site has low potential for contributing to the overall eligibility of the resource for inclusion in the CRHR due to loss of integrity and previous disturbance. Project components within this area will be contained within the vertical and horizontal limits of previous disturbance, with low chance of affecting previously undisturbed cultural deposits.

A small portion of resource P-37-008649 intersects with the PAL. Previous site records indicate that the site was tested in 1981, and five artifacts were found subsurface (0- to 10-centimeter depth). The records also indicate that the majority of artifacts were found on the steep ridge above the terrace where the PAL intersects with the site boundary. No artifacts were found within the surveyed portions of the site boundary in 2021. Therefore, it is recommended that this portion of the site has low potential for contributing to the overall eligibility of the resource for inclusion in the CRHR due to paucity of artifacts.

ICF archaeologists visited the northeastern portion of the site P-37-010875 in 2015 and identified two artifacts within the surveyed portion. The surveyed portion of the site was within the boundaries of previous mining activities. At the time, ICF recommended that the portion of the site within their survey area was not eligible for listing in the CRHR because of a paucity of artifacts (Elder 2015). In 2018, ICF archaeologists identified approximately 30 artifacts in an area measuring 80 by 25 meters. The surveyed portions of the site are assigned a moderate potential for significance due to the unknown potential for subsurface component or intact deposits.

Resource P-37-014566 was recorded as a lithic scatter, and the current study identified 10 flakes/debitage in a 15-square-meter area as well as additional artifacts eroding down a bank into the old mining area. The site was never tested or evaluated; therefore, it is assigned a moderate potential for significance due to the unknown potential for subsurface component or intact deposits.

A small portion of resource P-37-014575 intersects with the PAL. Within this area of intersection, one artifact was located in the road shoulder. The site was never tested or evaluated; therefore, it is assigned a moderate potential for significance due to the unknown potential for subsurface component or intact deposits.

Resource P-37-014583 was not relocated during the current study; therefore, no eligibility recommendation is provided.

One concentration of artifacts in the southeast portion of P-37-014585 was noted during survey. The site was never tested or evaluated; therefore, it is assigned a moderate potential for significance due to the unknown potential for subsurface component or intact deposits.

Resource P-37-032254 consists of a historic corral. Brian F. Smith recommended the corral as a contributing, but not significant, element of the Otay Ranch Farm Company ranch complex, as it is one of many such features scattered around Otay Ranch and is located 3 miles from the complex itself (Smith 2011). Its haphazard method of construction makes it not significant for architectural value or for embodying distinctive characteristics of a type, period, or method of construction.

Newly recorded resource ICF-OH-P-001 consists of a sparse lithic scatter. The site was never tested or evaluated; therefore, it is assigned a moderate potential for significance due to the unknown potential for subsurface component or intact deposits.

The record search identified five isolates within the PAL, but two were previously collected. Intensive pedestrian survey in the vicinity of the isolates revealed no additional artifacts or features. In addition, five isolates were newly recorded within the PAL. Although it is unknown whether there

are buried archaeological deposits associated with these isolates, it is inferred that these isolates would have limited potential for being eligible for listing in the CRHR and/or NRHP because of a paucity of associated artifacts and features.

Table 5-1. Potential Significance of Cultural Resources within the PAL

Resource	Type	Description	Potential Significance for NRHP/ CRHR	Reasoning
CA-SDI-4728/ P-37-004728	Prehistoric site	Lithic scatter	Moderate	Presence of subsurface component unknown; intact deposits or diagnostic artifacts could merit significance.
CA-SDI-4732/ P-37-004732	Prehistoric site	Lithic scatter	Moderate	Presence of subsurface component unknown; intact deposits or diagnostic artifacts could merit significance.
CA-SDI-4733/ P-37-004733	Prehistoric site	Lithic scatter	Low within PAL	Small portion of site within PAL has been disturbed by access road and grading. No artifacts identified in PAL.
CA-SDI-4735/ P-37-004735	Prehistoric site	Lithic scatter	Low within PAL	Small portion of site within PAL has been disturbed by access road and grading. One artifact identified in PAL.
CA-SDI-7212/ P-37-007212	Prehistoric site	Lithic scatter	Low	Northern portion tested in 2011 with no subsurface component. Portion of site within PAL has been graded.
CA-SDI-8649 P-37-008649	Prehistoric site	Lithic scatter	Low	Small portion of the site in the PAL with no artifacts; previous testing indicated shallow subsurface component.
CA-SDI-10875/ P-37-010875	Prehistoric site	Lithic scatter	Low/ Moderate	Portions of site within previous mining activity: low due to site destruction. Previously undisturbed portion of site: moderate due to unknown potential for subsurface component or intact deposits.
CA-SDI-14216/ P-37-14575	Prehistoric site	Lithic scatter	Moderate	Presence of subsurface component unknown; intact deposits or diagnostic artifacts could merit significance.
CA-SDI-14199/ P-37-014566	Prehistoric site	Lithic scatter	Moderate	Presence of subsurface component unknown; intact deposits and/or diagnostic artifacts could merit significance.
CA-SDI-14216/ P-37-014583	Prehistoric site	Lithic scatter	n/a	Site was not relocated.

Resource	Type	Description	Potential Significance for NRHP/ CRHR	Reasoning
CA-SDI-14218/ P-37-014585	Prehistoric site	Lithic scatter	Moderate	Presence of subsurface component unknown; intact deposits and/or diagnostic artifacts could merit significance.
ICF-OH-P-001	Prehistoric site	Lithic scatter	Moderate	Presence of subsurface component unknown; intact deposits and/or diagnostic artifacts could merit significance.
P-37-015386	Prehistoric isolate	Isolate (collected)	None	Isolate, by definition, is not eligible.
P-37-015391	Prehistoric isolate	Isolate (collected)	None	Isolate, by definition, is not eligible.
P-37-031365	Prehistoric isolate	Isolate	None	Isolate, by definition, is not eligible.
P-37-031366	Prehistoric isolate	Isolate	None	Isolate, by definition, is not eligible.
P-37-032254	Historic site	Historic corral	Low	Not unique design or significant contributor to a historic ranch complex.
P-37-034106	Prehistoric isolate	Isolate	None	Isolate, by definition, is not eligible.
ICF-OH-ISO-001	Prehistoric isolate	Isolate	None	Isolate, by definition, is not eligible.
ICF-OH-ISO-002	Prehistoric isolate	Isolate	None	Isolate, by definition, is not eligible.
ICF-OH-ISO-003	Prehistoric isolate	Isolate	None	Isolate, by definition, is not eligible.
ICF-OH-ISO-004	Prehistoric isolate	Isolate	None	Isolate, by definition, is not eligible.

Historic documentation review and a pedestrian survey revealed that the central portion of the PAL has been subject to deep and widespread ground disturbance associated with a sand and gravel mining operation that occurred on site during the late twentieth century. This area is considered to have limited potential to contain archaeological and historic built resources.

5.2 Impact Analysis

Activities identified in the HMMP include grading, vegetation removal, recontouring, plantings, establishment of main access roads and permanent at-grade channel crossings, and decommissioning of other less frequently used roads. The Otay Valley Regional Park trails component would include identifying existing informal trails and roads, reclaiming redundant trails, constructing the trails, and adding educational signage. Potential impacts on eligible resources could occur from these proposed activities. However, in order to avoid impacts on areas of artifact

concentration within the archaeological site boundaries, the HMMP will use nonnative weed control using herbicide and seeding of native vegetation. As part of the mitigation measures, the Proposed Project would establish environmentally sensitive areas (ESAs) around areas of artifact concentration and prohibit ground-disturbing activities and avoid impacts in the ESAs (CUL-1). In addition to establishing ESAs, archaeological and tribal monitoring will be required within existing cultural resources boundaries that intersect the PAL but where no artifact concentrations were identified during survey efforts. These areas are referred to as Monitoring Areas (MAs) and ground-disturbing activities occurring within MAs will require the presence of an archaeological monitor. The ESAs and MAs would be incorporated into the cultural resources treatment and monitoring plan (CUL-2).

The following section outlines proposed activities that would occur within cultural resources sites boundaries and the mitigation measures that would reduce impacts to a less-than-significant level. Table 5-2 and Figure E-1 (see Appendix E) provide a summary of when and where mitigation measures apply. Appendix E contains a nonconfidential version of the mitigation and activities table (Table E-1) and Figure E-1; these will be incorporated into the cultural resources monitoring plan and can be made available to nonarchaeological staff for scheduling purposes.

Proposed activities within the site boundary of P-37-004728 consist of nonnative weed control. No cultural resources monitoring is recommended for these activities within the site boundary since no artifact concentrations were identified. MM-CUL-02 and MM-CUL-03 would apply if ground-disturbing activities are proposed within the site boundary.

Proposed activities within the site boundary of P-37-004732 consist of nonnative weed control using herbicide and seeding of native vegetation. No cultural resources monitoring is recommended for these two activities within the site boundary; however, MM-CUL-01 applies. MM-CUL-02 and MM-CUL-03 would apply if ground-disturbing activities are proposed within the site boundary.

A small portion of resource P-37-004733 intersects within the PAL. In this area, the project is proposing trail reclamation, which will involve ground-disturbing activities. However, given the lack of artifacts identified within the intersecting area, and the level of previous ground disturbance in this area, cultural monitoring is not recommended.

A small portion of resource P-37-004735 intersects within the PAL. Two types of activities are proposed in areas that intersect with the site boundary. In one area, the project is proposing to narrow the existing road to 8–10 feet wide, and, in a second spot, the project is proposing improvements to a drainage. Both activities will involve ground disturbance. However, given the lack of artifacts identified within the intersecting areas, and the level of previous ground disturbance in this area, cultural monitoring is not recommended.

Proposed activities within resource P-37-007212 consist of road improvements, road closures, and stream improvements. No subsurface cultural deposits were found during the 2011 testing program, and no artifacts were found during the current study. Given the lack of artifacts, and the level or previous disturbance within the northern portion of P-37-007212, no cultural resources monitoring is recommended.

Proposed activities within resource P-37-008649 consist of nonnative weed control using herbicide and seeding of native vegetation. Some planting of native vegetation may occur with minimal ground disturbance. Given the lack of artifacts identified within the small portion of the site boundary located in the PAL, cultural monitoring is not recommended.

Proposed activities within boundaries of P-37-010875 would consist of nonnative weed control, seeding, trails enhancement, and reclamation resulting in ground-disturbing activities. Seeding and use of herbicides within areas of artifact concentrations would not require cultural monitoring because they would not result in ground-disturbing activities. However, MM-CUL-01 would apply. Additionally, no monitoring is recommended for the portion of the site within the previous mining extent, as that area has limited intact cultural deposit potential. Cultural resources monitoring (MM-CUL-02 and MM-CUL-03) is recommended for initial ground-disturbing activities associated with trail improvements and closures within the site boundary of P-37-010875.

Proposed activities within boundaries of P-37-014566 would consist of nonnative weed control, seeding, trails enhancement, and reclamation, resulting in ground-disturbing activities. Seeding and use of herbicides within areas of artifact concentrations would not require cultural monitoring because they would not result in ground-disturbing activities. However, MM-CUL-01 would apply. Additionally, no monitoring is recommended for the portion of the site within the previous mining extent, as that area has limited intact cultural deposit potential. Cultural resources monitoring (MM-CUL-02 and MM-CUL-03) is recommended for initial ground-disturbing activities associated with trail improvements and closures within the site boundary of P-37-014566.

Proposed activities within the site boundary of P-37-014575 consist of nonnative weed control using herbicide and seeding of native vegetation as well as road improvements and recontouring. Seeding and use of herbicides within the site boundary would not require cultural monitoring because they would not result in ground-disturbing activities, and no concentration of artifacts were identified within the site boundary. MM-CUL-02 and MM-CUL-03 would apply for proposed ground-disturbing activities within the site boundary.

Resource P-37-014583 was not relocated during the current study. At this time, no ground-disturbing activities are proposed within the site boundary. Use of herbicides and seeding method would not require cultural monitoring. MM-CUL-02 and MM-CUL-03 would apply if ground-disturbing activities are proposed within the site boundary.

Proposed activities within P-37-014585 would consist of road closures/reclamation, installation of a fence around the area, seeding, and nonnative weed control. MM-CUL-01 would apply to the area of artifact concentration. Cultural resources monitoring (MM-CUL-02 and MM-CUL-03) is recommended for ground-disturbing activities within the site boundary.

Proposed activities within P-37-032254 consist of weed control and installation of an interpretive sign. Proposed ground-disturbing activities would not result in impacts on the historic corral; therefore, no cultural resources monitoring is recommended.

Proposed activities within ICF-OH-P-001 consist of nonnative weed control using herbicide and seeding of native vegetation. Seeding and use of herbicides within the site boundary would not require cultural monitoring because they would not result in ground-disturbing activities. MM-CUL-02 and MM-CUL-03 would apply for proposed ground-disturbing activities within the site boundary.

No mitigation measures are necessary for isolates because they lack association and context with other archaeological materials; therefore, they are by definition not eligible for listing in the NRHP or CRHR.

Table 5-2. Proposed Activities and Applicable Mitigation Measures

Resource	Corresponding Environmentally Sensitive Area or Monitoring Area	Activity	Mitigation Measure
P-37-004728/CA-SDI-4728	MA 4	Herbicide and seeding	None
		Ground-disturbing activities	MM-CUL-02 and MM-CUL-03
P-37-004732/ CA-SDI-4732	ESA 1 MA 2	Herbicide and seeding	MM-CUL-01
		Ground-disturbing activities	MM-CUL-02 and MM-CUL-03
P-37-004733/ CA-SDI-4733	None	Road improvements	None
P-37-004735/ CA-SDI-4735	None	Drainage and road improvements	None
P-37-007212/ CA-SDI-7212	None	Road improvements/ closure	None
		Stream improvements	None
P-37-008649/ CA-SDI-8649	None	Herbicide and seeding	None
P-37-010875/ CA-SDI-10875	ESA 4 MA 7	Herbicide and seeding	MM-CUL-01
		Ground-disturbing activities within mining extent	None
		Road improvements/ closure	MM-CUL-02 and MM-CUL-03
		Other ground-disturbing activities	MM-CUL-02 and MM-CUL-03
P-37-014566\ CA-SDI-14199	ESA 3 MA 6	Herbicide and seeding	MM-CUL-01
		Ground-disturbing activities within mining extent	None
		Road improvements/ closure	MM-CUL-02 and MM-CUL-03
		Other ground-disturbing activities	MM-CUL-02 and MM-CUL-03
P-37-014575/ CA-SDI-14208	MA 5	Herbicide and seeding	None
		Ground-disturbing activities	MM-CUL-02 and MM-CUL-03
P-37-014583/ CA-SDI-14216	MA 1	Herbicide and seeding	None
		Ground-disturbance activities	MM-CUL-02 and MM-CUL-03
P-37-014585/ CA-SDI-14218	ESA 2 MA 3	Herbicide and seeding	MM-CUL-01
		Road improvements/ closure	MM-CUL-02 and MM-CUL-03

Resource	Corresponding Environmentally Sensitive Area or Monitoring Area	Activity	Mitigation Measure
		Fence installation	MM-CUL-02 and MM-CUL-03
P-37-032254	None	Weed control	None
		Sign installation	None
ICF-OH-P-001	MA8	Herbicide and seeding	None
		Other ground-disturbing activities	MM-CUL-02 and MM-CUL-03

5.3 Mitigation Measures

Mitigation measures MM-CUL-01, MM-CUL-02, and MM-CUL-03 will reduce impacts to less-than-significant levels when implemented.

MM-CUL-1: Establish Environmentally Sensitive Areas

- To reduce potential impacts on archaeological resources, ESAs will be established in areas of artifact concentrations.
- In order to avoid impacts on ESA 1 through ESA 4, only non-ground-disturbing methods of seeding and herbicide control of nonnative species will be used.
- Cultural resources monitoring will not be required for seeding and herbicide control of nonnative species.

MM-CUL-02: Conduct Archaeological Monitoring

To reduce potential impacts on archaeological resources, a qualified archaeologist will monitor initial ground-disturbing activities within identified portions of sites (described below) in order to minimize disturbance of archaeological deposits. Specifically, the following measures will be implemented to reduce impacts:

- Prior to the start of construction, a monitoring and treatment plan will be prepared that describes the nature of the archaeological monitoring work, procedures to follow in the event of an unanticipated discovery, and reporting requirements. The plan will be submitted for review to the City of Chula Vista.
- All monitoring will be conducted by individuals with experience monitoring for archaeological resources in southern California. All monitors will be under the supervision and direction of a qualified archaeologist(s) who meets the Secretary of the Interior's Professional Qualifications Standards, as promulgated in Code of Federal Regulations (CFR), Title 36, Section 61.
- Monitoring of initial ground disturbance will occur within:
    - The site boundary of P-37-004728.

  - The site boundary of P-37-004732.
  - The site boundary of P-37-014583.
  - For sites P-37-010875 and P-37-014566, portions of the site outside the old mining extent.
  - The site boundary of P-37-014575.
  - The site boundary of P-37-014585.
  - The site boundary of ICF-OH-P-001.
- The following activities will require the presence of an archaeological monitor when they occur within the areas identified above:
  - Manual weed pulling, fence installation, mechanical work that includes ground disturbance, and other ground-disturbing activities necessary for the implementation of the HMMP.
- If intact subsurface deposits are identified during construction, the archaeologist will be empowered to divert construction activities away from the find and will be given sufficient time and compensation to investigate the find and determine its significance. No soil will be exported off site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.
- Recovered items will be treated in accordance with current professional standards by being properly provenienced, cleaned, analyzed, researched, reported, and curated in a collection facility meeting the Secretary of the Interior's Standards, as promulgated in 36 CFR 79, such as the San Diego Archaeological Center. The costs for curation will be included in the budget for recovery of the archaeological remains.
- A final cultural resources report will be produced and provided to the City of Chula Vista, which will discuss the monitoring program and its results and will provide interpretations of any recovered cultural materials.
- The qualified archaeologist will have the discretion to increase or decrease the level of monitoring based on professional judgement and field conditions.

MM-CUL-03: Conduct Native American Monitoring

A Kumeyaay tribal monitor will be retained to conduct Native American monitoring for areas and activities identified in MM-CUL-02 and when an archaeological monitor is present.

- Attendance by Native American monitors during ground-disturbing activities is at the discretion of the tribe, and the absence of a Native American monitor, should the tribe choose to forgo monitoring for some reason, will not delay work.
- Interpretation of a find will be requested from Native American monitors involved with the discovery, evaluation, or data recovery of unanticipated finds for inclusion in the final cultural resources report.

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Chapter 6
References

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Appendix A

Previous Record Search Studies within 0.5 Mile of the PAL

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Table A-1. Cultural Resources Studies Conducted within 0.5 Mile of the PAL

Report No.	NADB No.	Year	Title	Author(s)
SD-00673	1120673	1988	Cultural Resource Survey and Testing Program for the East Mesa Detention Facility San Diego, California.	Gallegos, Dennis, Carolyn Kyle, Richard Carrico, and Roxana Phillips
SD-00850	1120850	1988	Cultural Resource Survey and Testing Program for the East Mesa Detention Facility, San Diego, California	Kyle, Carolyn, Dennis Gallegos, and Roxana Phillips
SD-01364	1121364	1990	Archaeological Survey Report for Proposed State Route 125 from State Route 905 (Near the Second Border Crossing) to State Route 54 (Near the Sweetwater Reservoir), San Diego County, California.	Rosen, Martin D.
SD-01526	1121526	1982	Archaeological Survey of the Proposed Otay Mesa Correctional Facility	Thesken, Jay and Richard L. Carrico
SD-01793	1121793	1989	The Lower Otay Filtration Plant (CA-SDI-11,355H)- An Historical Survey and Assessment	Schaefer, Jerry
SD-01861	1121861	1982	Results of an Archaeological Test Program Conducted at SDI-10862 Lower Otay County Park County of San Diego	Hector, Susan and Stephen Van Wormer
SD-02047	1122047	1985	Reviewers of the Otay Mesa Prison Sewer Pipeline Negative Declaration	James Hargrove
SD-02842	1122842	1984	Archaeological Survey of Two Sewerline Routes: Proposed Otay Mesa Prison Site, San Diego, California	Kidder, Fred W.
SD-02843	1122843	1985	Final Report-Archaeological Test Excavations at CA-SDI-9980 and CA-SDI-9981 on the Proposed Otay Mesa State Prison Sewer Link, RT.5	Cultural Resource Management Center, SDSU
SD-03740	1123740	1993	Phase II Archaeological Evaluation of CA-SDI-12,809 a Late Prehistoric Habitation Site in the Otay River Valley San Diego County, California	Mcdonald, Meg, Carol Serr, and Jerry Schaefer
SD-03767	1123767	1994	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.	Schaefer, Jerry, Stephen Van Wormer, and Susan Walter
SD-03823	1123823	2000	Cultural Resource Constraint Study for the Otay Water Treatment Plant Improvements City of San Diego, California	Kyle, Carolyn
SD-04134	1124134	2000	Cultural Resource Survey for the Otay Water Treatment Plant Upgrade, City of San Diego, Ca.	Kyle, Carolyn E.
SD-04260	1124260	1991	Cultural Resource Survey for San Diego County Water Authority Pipeline 4EII	Brian F. Mooney Associates
SD-04643	1124643	1982	California State Prison at San Diego Final Environmental Impact Report State Clearinghouse Number 81010704	Westec Services, Inc.

Report No.	NADB No.	Year	Title	Author(s)
SD-04651	1124651	1982	California State Prison at San Diego Final Environmental Impact Report State Clearinghouse Number 81010704	Westec Services, Inc.
SD-04653	1124653	1988	East Mesa Detention Facility Supplemental Environmental Impact Report Draft	Westec Services, Inc.
SD-05032	1125032	1983	Archaeological Assessment of Bureau of Land Management Jamul Site Number 3	County of San Diego
SD-05069	1125069	1997	Volume I Final Report of the Excavation of CSUSD CAL F:5:1	McGowan, Charlotte
SD-05144	1125144	2000	Cultural Resource Survey for the Otay Water Treatment Plant Upgrade city of San Diego, California	Kyle, Carolyn
SD-05245	1125245	1989	Results of an Archaeological Survey and Evaluation of Cultural Resources Within the Baldwin/Otay Ranch Business Park	Brian F. Smith
SD-05408	1125408	2001	Draft Mitigated Negative Declaration Otay Water Treatment Plan Upgrade	Raap, Allison
SD-07659	1127659	1990	Archaeological Survey Report for Proposed State Route 125 From State Route 905 (Near the Second Border Crossing) to State Route 54 (Near Sweetwater Reservoir); 11-SD-125 P.M. 0.0/11.2	Caltrans
SD-09658	1129658	2005	Cultural Resource Monitoring for the Otay Water Treatment Plant Upgrade Project City of San Diego, California	Kyle, Carolyn
SD-10251	1130251	2006	Cultural Resource Records Search and Site Visit Results Search and Site Visit Results for Spirit Nextel Telecommunications Facility Candidate CA7456A (Johnson Canyon), 2270 Wueste Road, Chula Vista, San Diego County, California	Bonner, Wayne H. and Sarah A. Williams
SD-10306	1130306	2006	Archaeological Survey Report for the State Route 125-South Project: Biological Mitigation Properties (Otay Ranch - San Ysidro and Otay River Valley) San Diego County, California	McCorkle-Apple, Rebecca and Christopher L. Shaver
SD-10367	1130367	2006	Archaeological Resources Assessment, CA-SDI-11217, CA-SDI-11218, CA-SDI-11219, Lonestar Ridge (New Millennium), Otay Mesa, San Diego, California	Robbins-Wade, Mary
SD-12351	1132351	2006	9th Supplemental Historic Property Survey Report for State Route 125-South Project: Biological Mitigation Properties (Otay Ranch, San Ysidro, And Otay River Valley)	McCorkle Apple, Rebecca
SD-13123	1133123	2011	Archaeological Survey Report for the State Route 11 Port of Entry Project: Johnson Canyon Biological Mitigation Site in Otay Mesa, San Diego County, California	Tsunoda, Koji
SD-13650	1133650	2010	ETS #8360; TL 6910 Wood to Steel, Miguel to Border Substations, Cultural Resources Inventory Report	Clowery, Sara C. and Nicole Blotner

Report No.	NADB No.	Year	Title	Author(s)
SD-14368	1134368	2013	Draft Program Environmental Impact Report for the Otay Mesa Community Plan Update, City of San Diego Project Number 30330/304032	City of San Diego

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Appendix B

Native American Correspondence

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

September 20, 2018

Karolina Chmiel

ICF

Sent by Email: karolina.chmiel@icf.com

Re: Otay River Mitigation Bank and Trails, San Diego County

Dear Ms. Chmiel,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at 916-573-1033 or frank.lienert@nahc.ca.gov.

Sincerely,

Frank Lienert
Associate Governmental Program Analyst

Native American Heritage Commission
Native American Contacts
September 20, 2018

Ewiiaapaayp Band of Kumeyaay Indians
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Campo Band of Diegueño Mission Indians
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rgoff@campo-nsn.gov
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La Posta Band of Diegueño Mission Indians
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LP13boots@aol.com
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(619) 478-2125 Fax

Jamul Indian Village
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(619) 669-4817

Manzanita Band of Kumeyaay Nation
Angela Elliott-Santos, Chairperson
P.O. Box 1302 Diegueno/Kumeyaay
Boulevard , CA 91905
(619) 766-4930

(619) 766-4957 Fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
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Sycuan Band of the Kumeyaay Nation
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Kumeyaay Cultural Repatriation Committee
Clint Linton. Director of Cultural Resources
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Viejas Band of Kumeyaay Indians
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This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes with regard to cultural resources assessments for the proposed
Otay River Mitigation Bank and Trails, San Diego County

Native American Heritage Commission
Native American Contacts
September 20, 2018

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(619) 669-4817 Cell

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes with regard to cultural resources assessments for the proposed
Otay River Mitigation Bank and Trails, San Diego County

October 8, 2018

Campo Band of Diegueño Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1
Campo, CA 91906

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Mr. Goff:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

ICF has been retained to conduct a cultural resources study to support an Initial Study. To accomplish this objective, ICF cultural resources personnel performed a records search, archival research, a Sacred Lands File search, and a pedestrian survey within the project area. Archival research refers to both written and oral history including record searches at the South Central Coastal Information Center (SCCIC), the Native American Heritage Commission (NAHC), as well as Native American consultation. Prehistoric sites have been identified directly adjacent to or within the project area as a result the record search and pedestrian survey.

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Sincerely,

Karolina Chmiel, MA
Archaeologist

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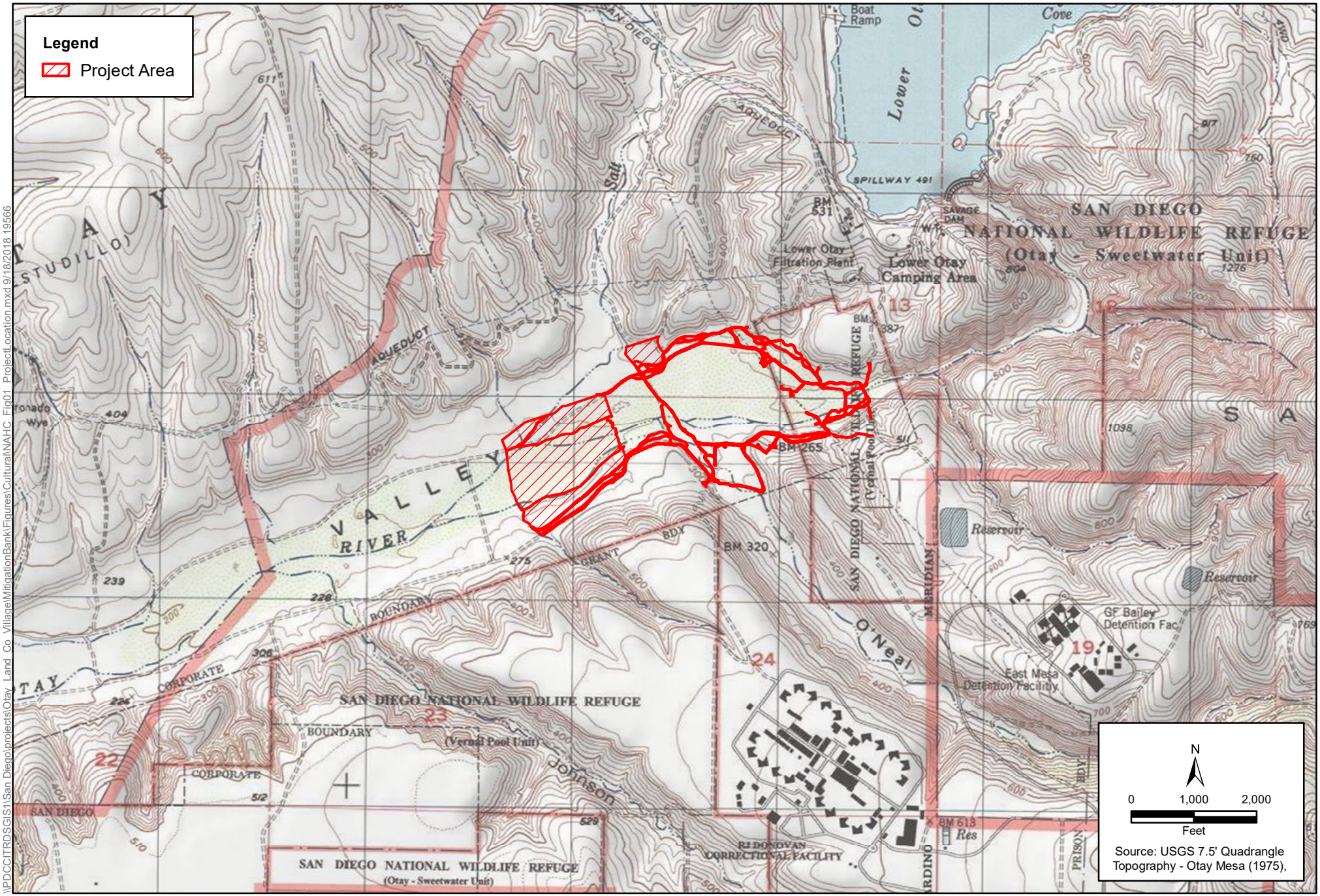

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto Sr. Chairperson
4054 Willows Road
Alpine, CA 91901

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Mr. Pinto:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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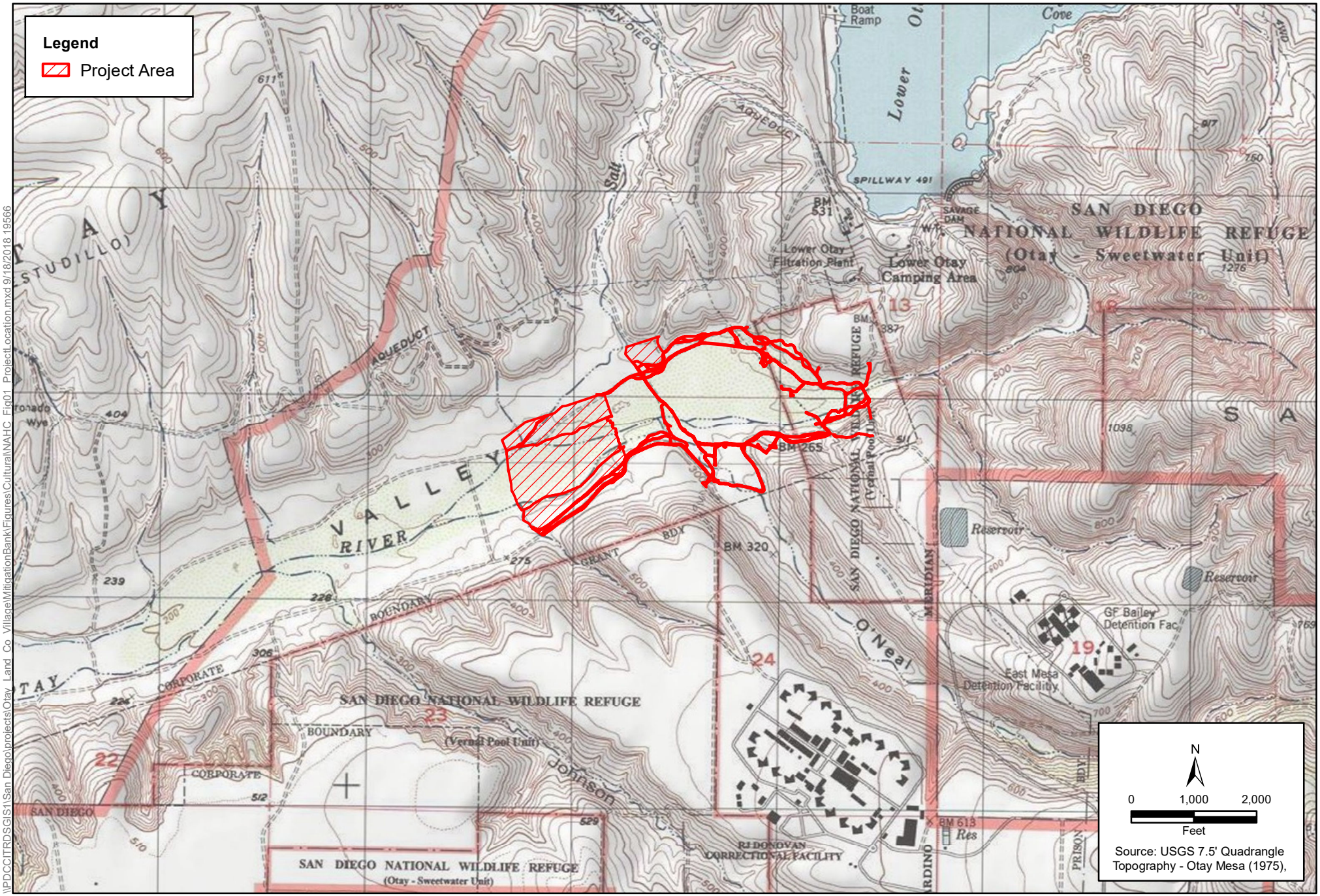

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road
Alpine, CA 91901

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Mr. Garcia:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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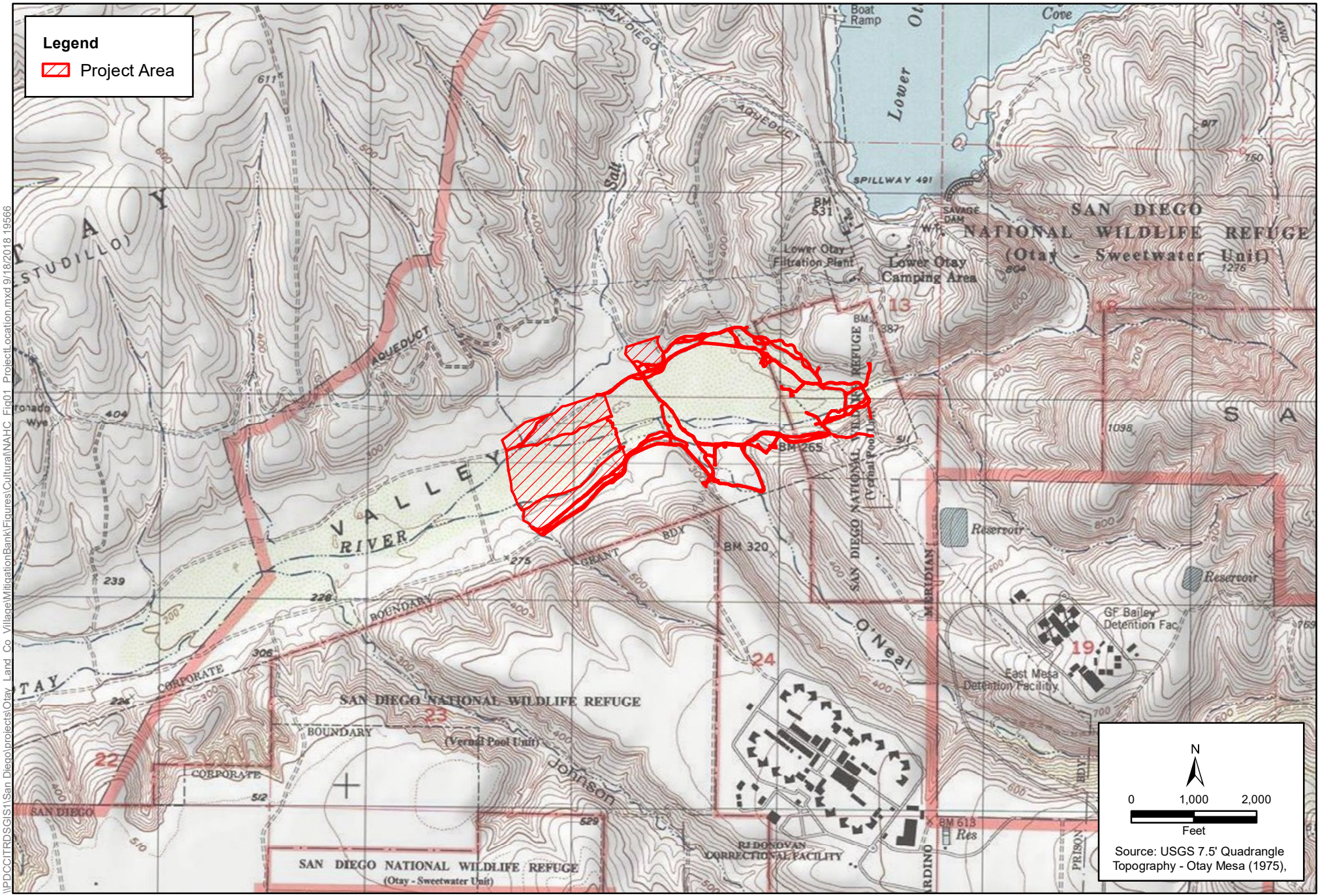

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Iipay Nation of Santa Ysabel
Virgil Perez, Chairperson
P.O. Box 130
Santa Ysabel, CA 92070

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Mr. Perez:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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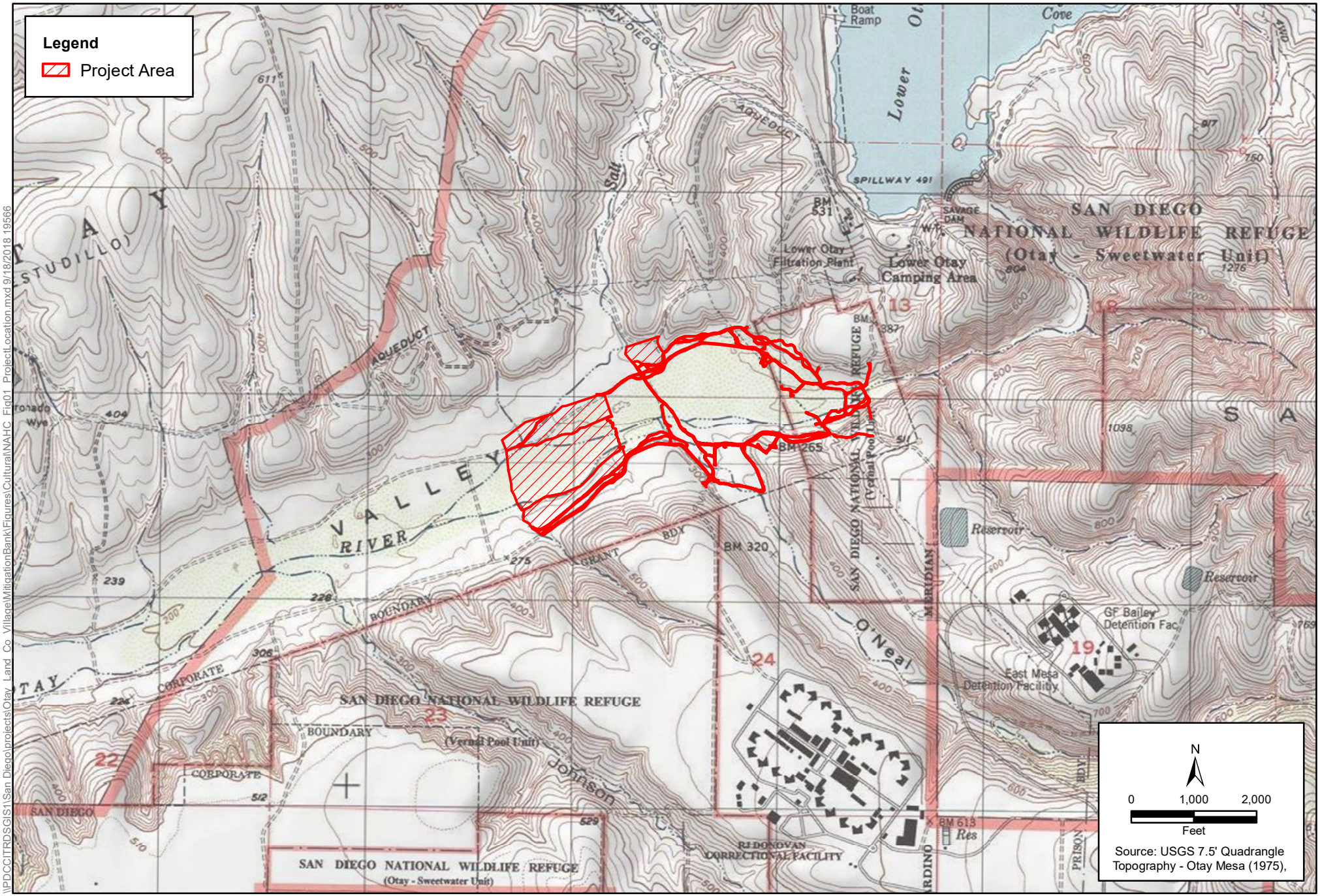

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Kumeyaay Cultural Repatriation Committee
Clint Linton, Director of Cultural Resources
P.O. Box 507
Santa Ysabel, CA 92070

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Mr. Linton:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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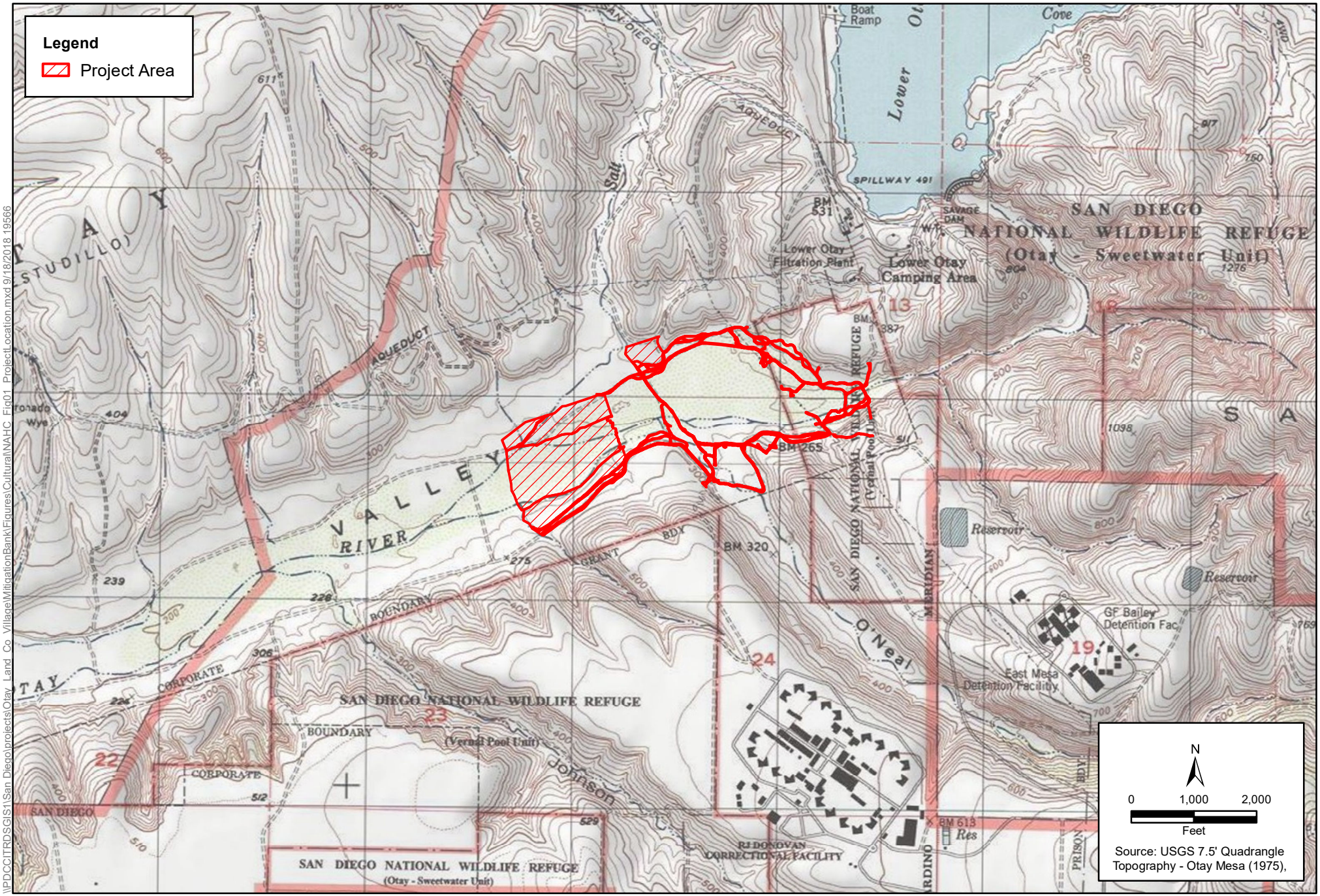

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Jamul Indian Village
Erica Pinto, Chairperson
P.O. Box 612
Jamul, CA 91935

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Ms. Pinto:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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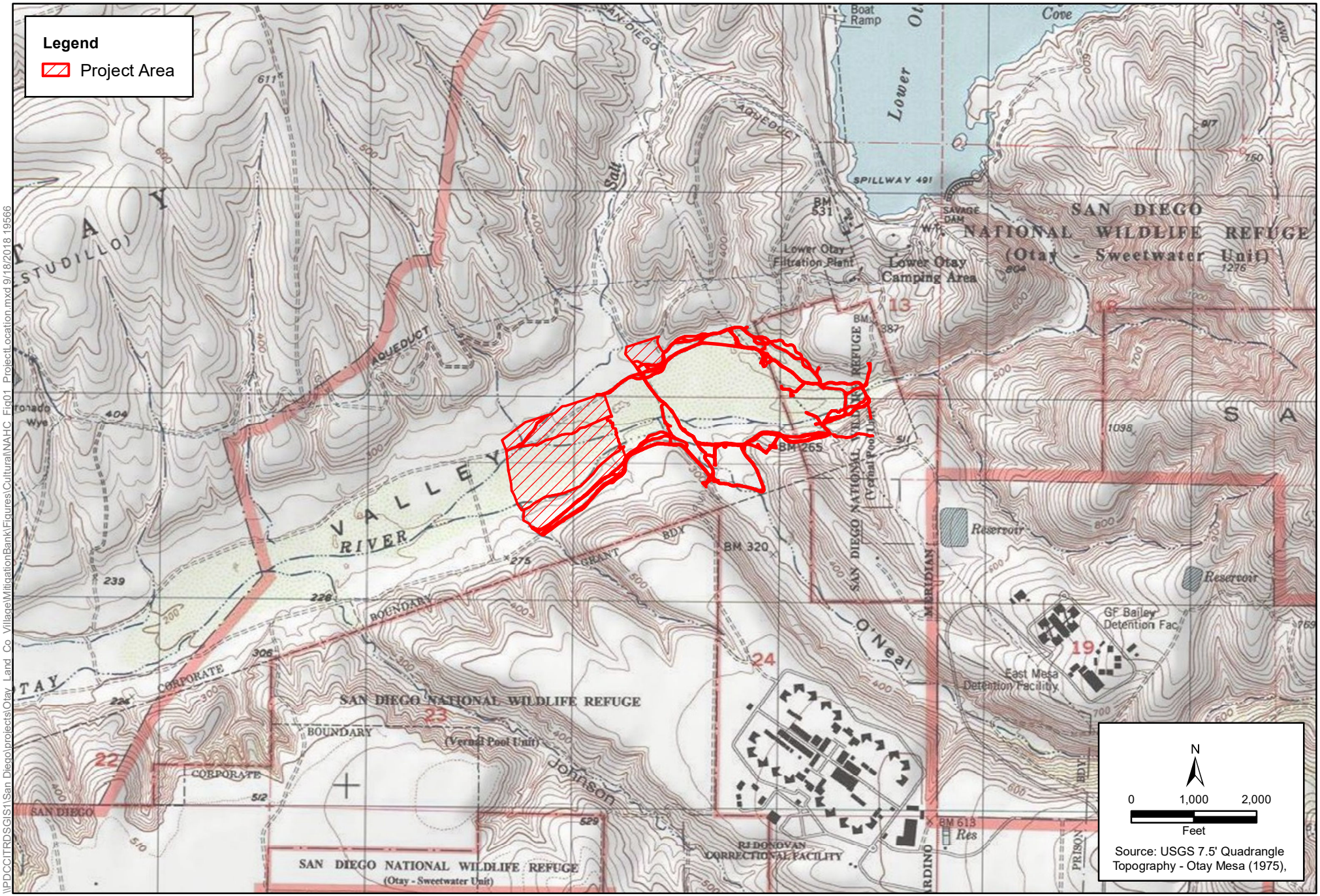

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Jamul Indian Village
Lisa Cumper, THPO
P.O. Box 612
Jamul, CA 91935

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Ms. Cumper:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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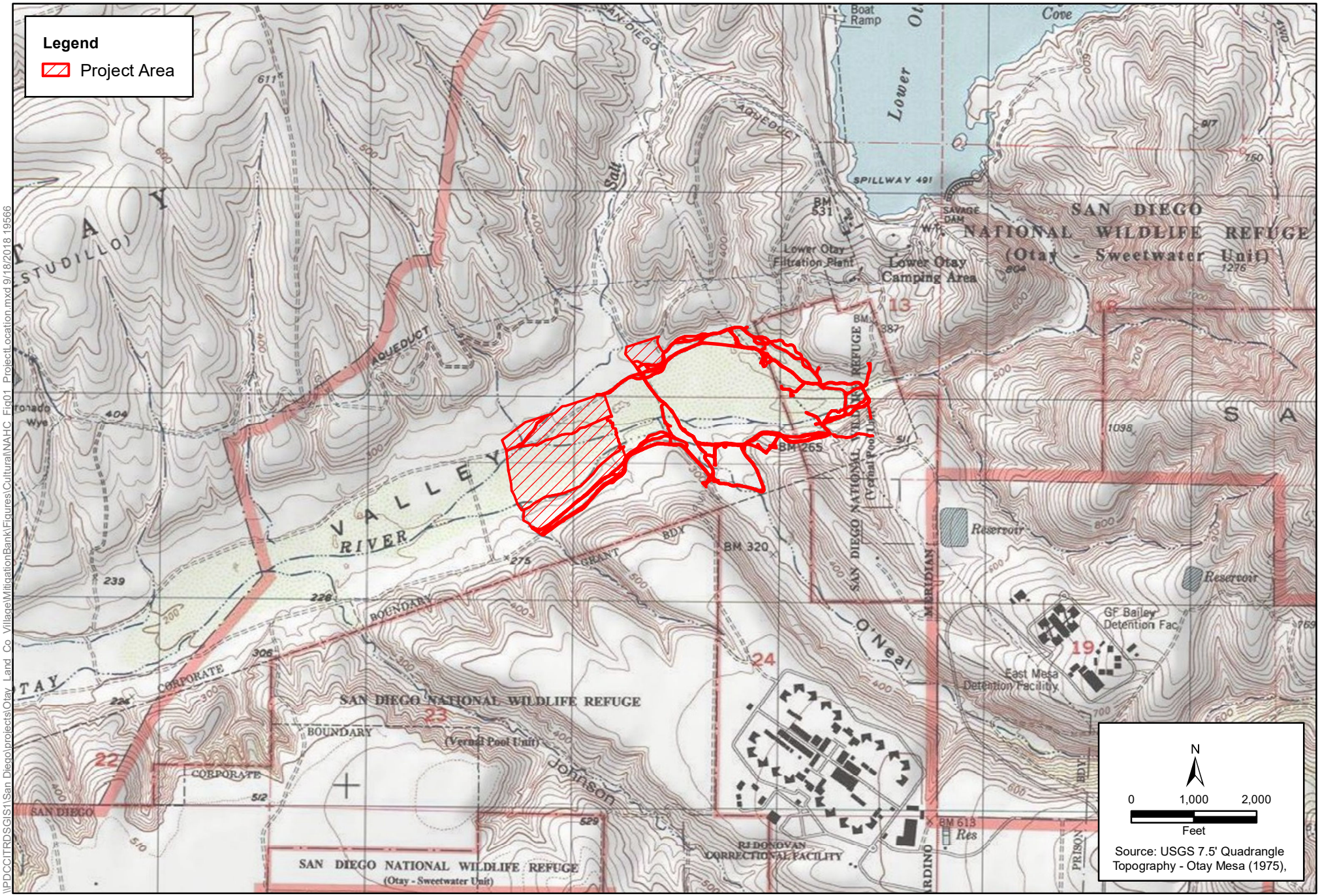

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775
Pine Valley, CA 91962

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Ms. Lucas:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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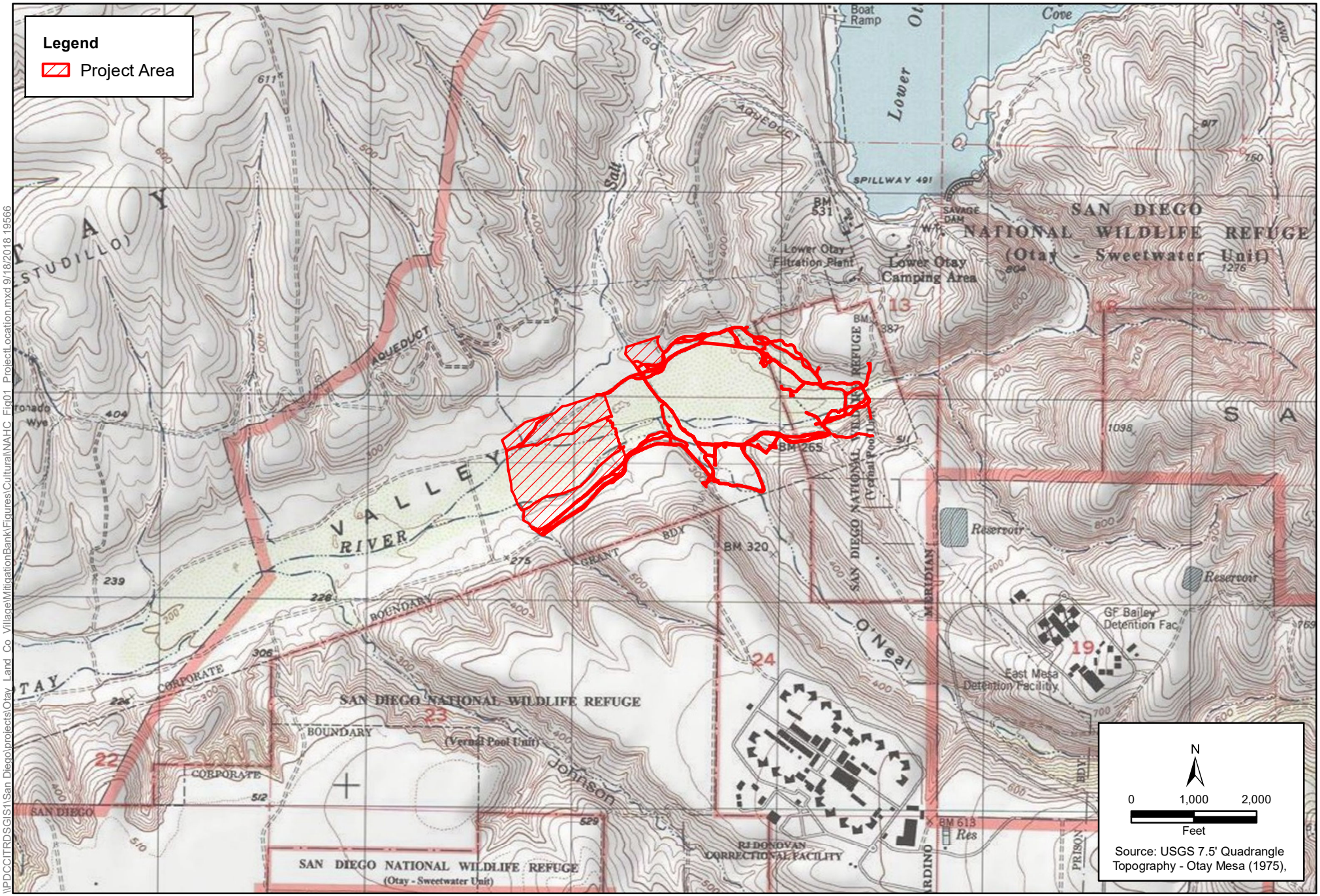

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

La Posta Band of Diegueño Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road
Boulevard, CA 91905

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Ms. Parada:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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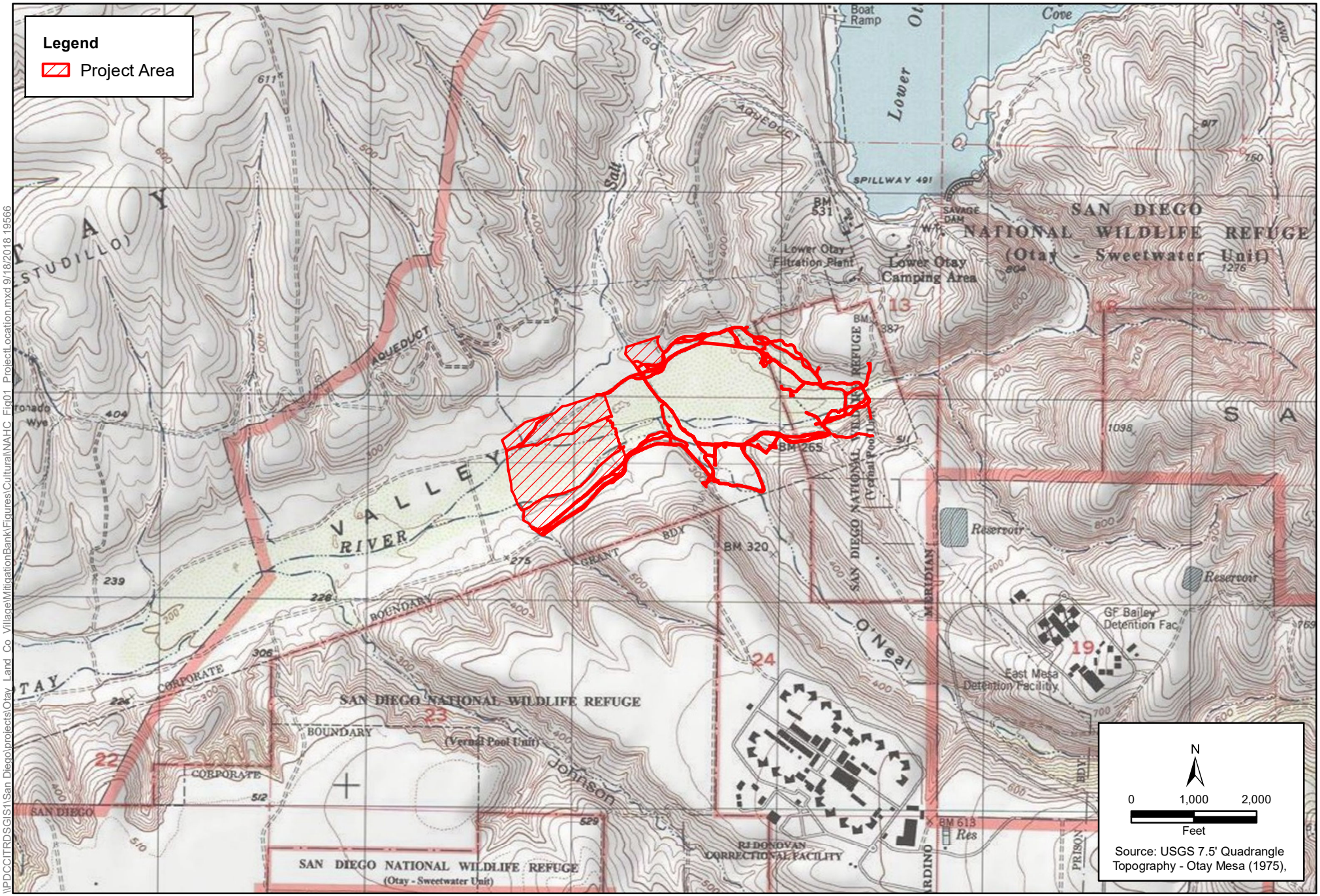

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos
P.O. Box 1302
Boulevard, CA, 91905

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Ms. Elliott Santos:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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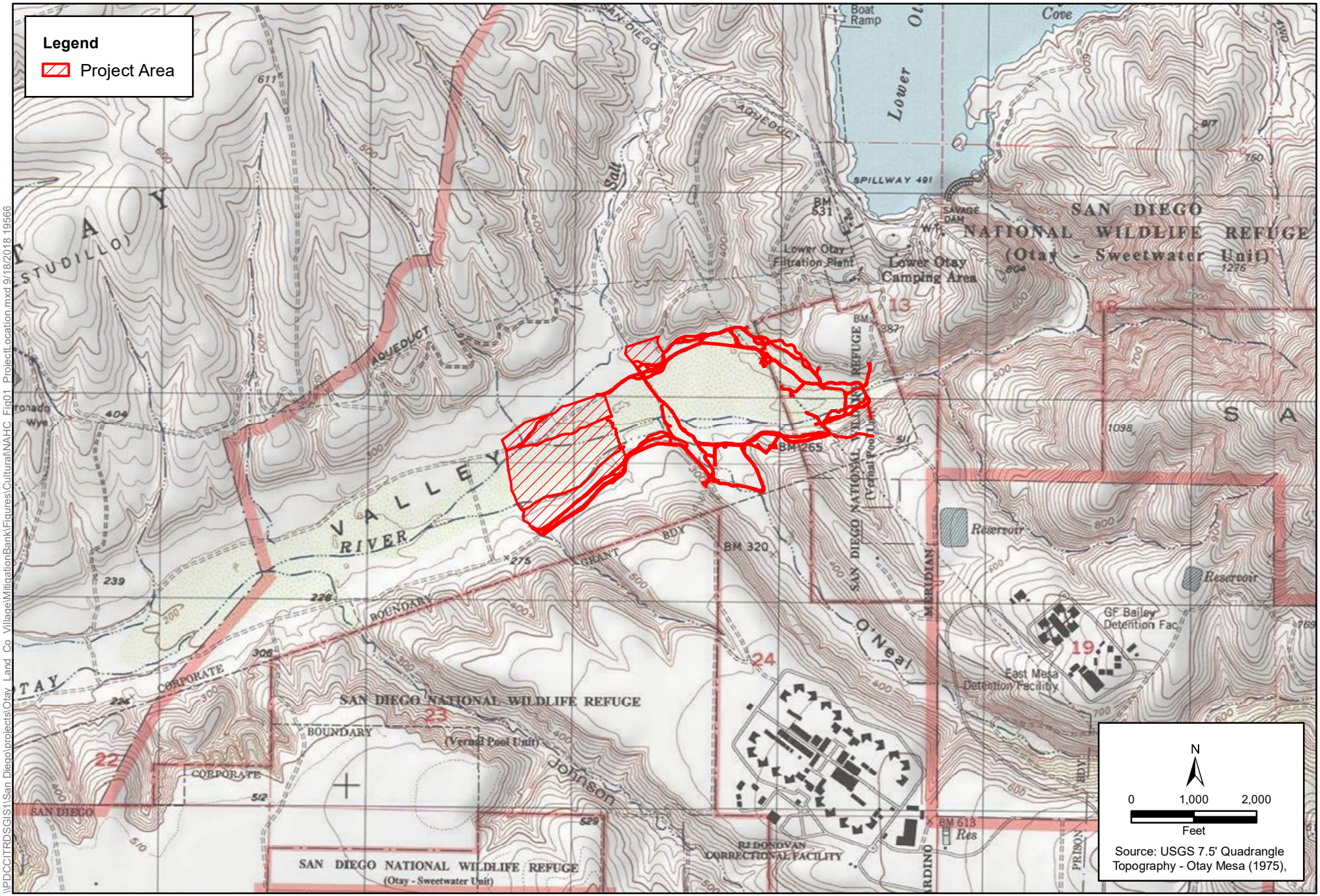

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Sycuan Band of the Kumeyaay Nation
Cody J. Martinez, Chairperson
1 Kwaaypaay Court
El Cajon, CA 92019

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Mr. Martinez:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

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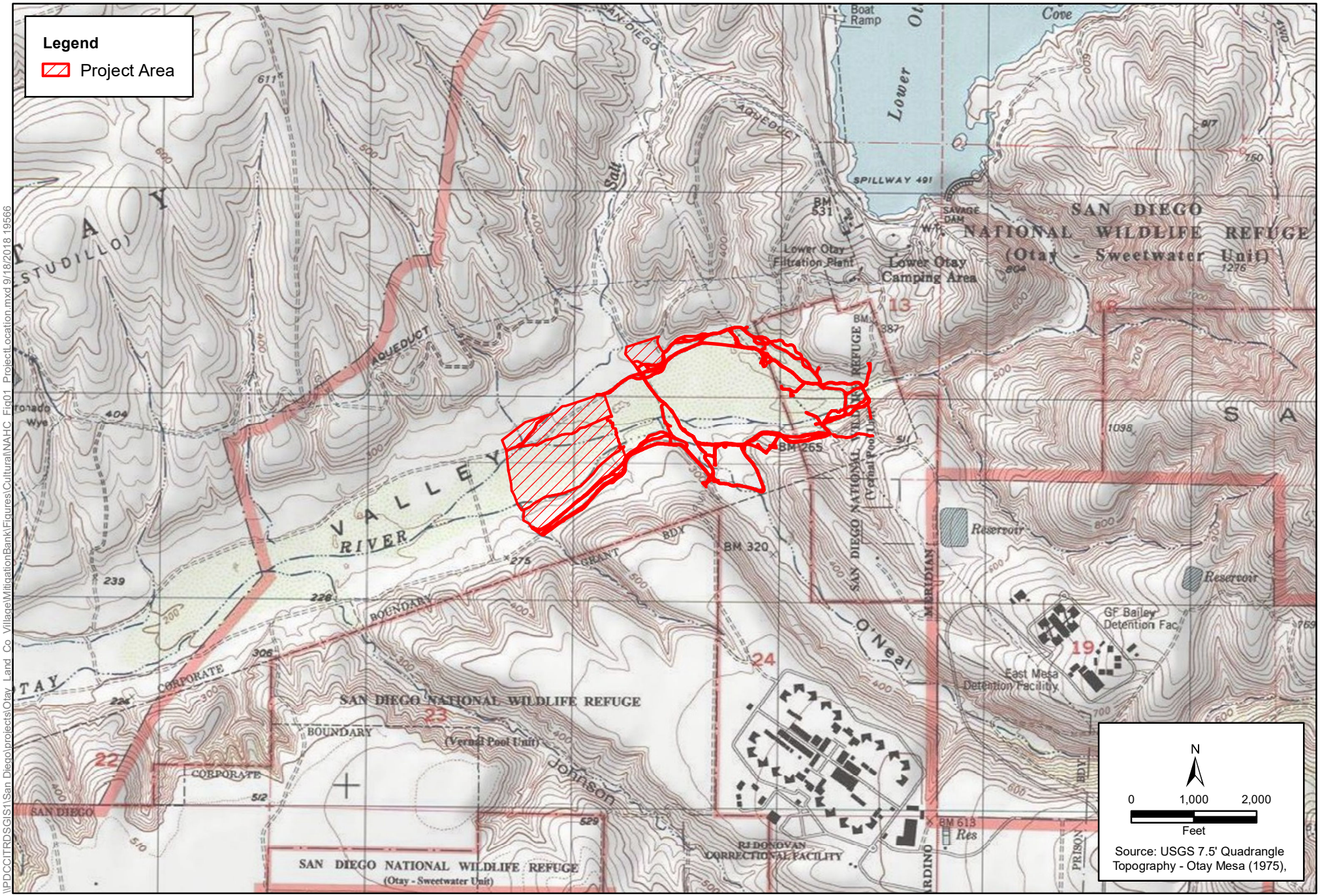

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ICF

Figure 1
Project Location
Otay River Restoration Project

October 8, 2018

Viejas Band of Kumeyaay Indians
Robert J. Welch Jr., Chairperson
1 Viejas Grade Road
Alpine, CA 91901

Subject: Otay River Mitigation Bank and Trails Project – Due Diligence Outreach

Dear Mr. Welch:

The Mitigation Bank project is a proposed approximately 135-acre mitigation bank that would result in the restoration of the Otay River, its floodplain, and adjacent upland habitat (the Project). The Project will provide compensatory mitigation for unavoidable impacts to waters of the US. The Project also involves restoration to natural habitat or creation of trails and roads. The Project is within Sections 13, 14, 23, and 24 of Township 18 South, Range 1 West, and appears on the *Otay Mesa*, California USGS 7.5-minute series topographic map (Figure 1).

ICF has been retained to conduct a cultural resources study to support an Initial Study. To accomplish this objective, ICF cultural resources personnel performed a records search, archival research, a Sacred Lands File search, and a pedestrian survey within the project area. Archival research refers to both written and oral history including record searches at the South Central Coastal Information Center (SCCIC), the Native American Heritage Commission (NAHC), as well as Native American consultation. Prehistoric sites have been identified directly adjacent to or within the project area as a result the record search and pedestrian survey.

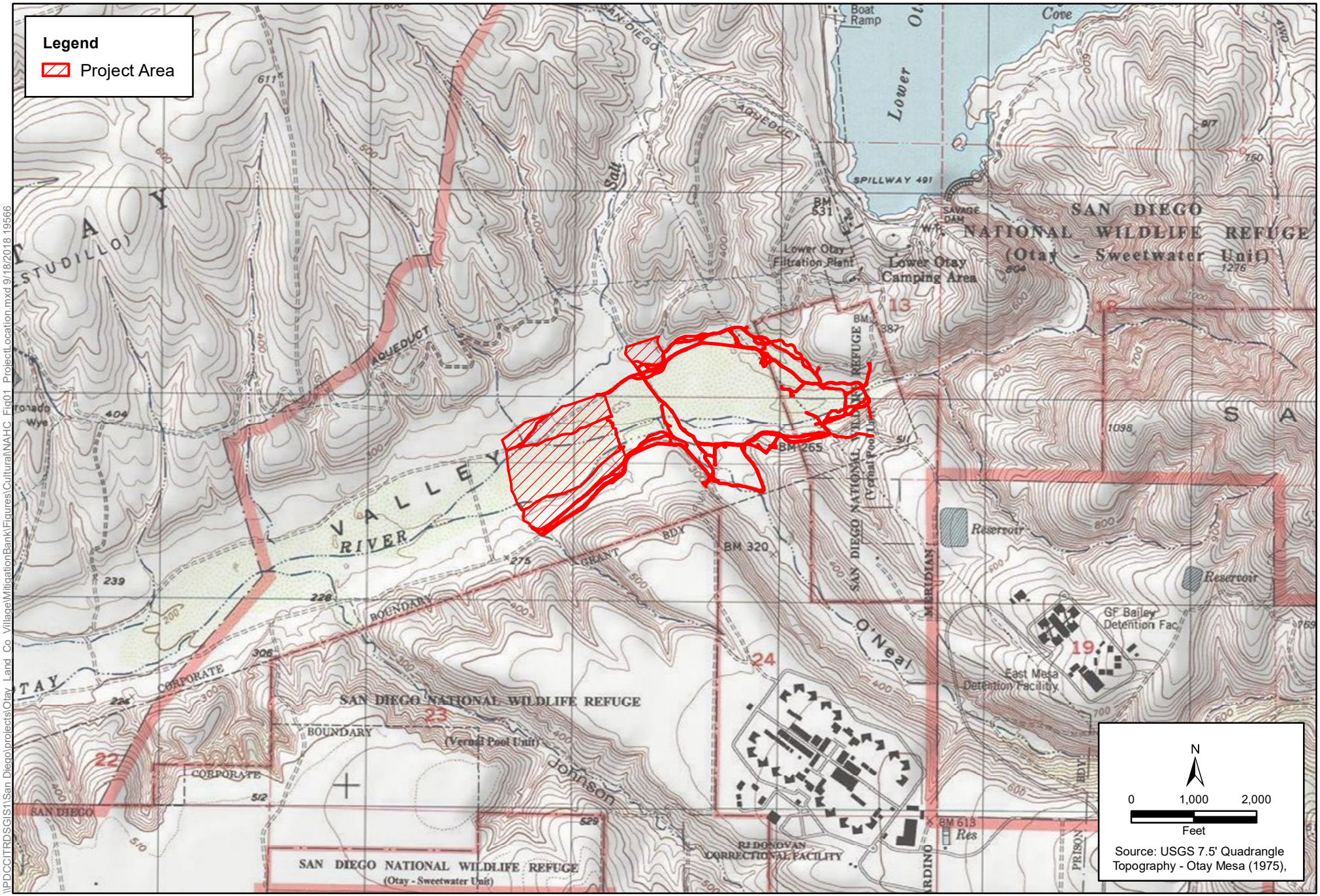
The NAHC completed a search of the Sacred Lands File which failed to indicate the presence of Native American sacred lands within the project area. The NAHC identify you as a person who may have concerns or knowledge of cultural resources in the project area. Any information you might be able to share about the project area would greatly enhance the study and would be most appreciated.

If you would like to participate in the consultation process, or if you have any recommendations regarding the Project, please address them to me so that I can incorporate them into our draft report. As required by State law, all site data and other culturally sensitive information will not be released to the general public and will be kept strictly confidential. This outreach is for due diligence and not under AB52 or Section 106. I can be reached at 858-444-3936, or by email at Karolina.chmiel@icf.com.

Sincerely,

Karolina Chmiel, MA
Archaeologist

Encl. Figure 1



\\PDCCITRDSGIS1\San Diego\projects\Otay Land Co VillageMitigationBank\Figures\Cultural\NAHC Fig01 ProjectLocation.mxd 9/18/2018 19566

ICF

Figure 1
Project Location
Otay River Restoration Project

VIEJAS
TRIBAL GOVERNMENT

P.O Box 908
Alpine, CA 91903
#1 Viejas Grade Road
Alpine, CA 91901

Phone: 6194453810
Fax: 6194455337
viejas.com

October 22, 2018

Karolina Chmiel
Archaeologist
ICF
525 B Street, Suite 1700
San Diego, CA 92101

RE: Otay River Mitigation Bank and Trails Project

Dear Ms. Chmiel,

The Viejas Band of Kumeyaay Indians ("Viejas") has reviewed the proposed project and at this time we have determined that the project site has cultural significance or ties to Viejas.

Viejas Band request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities to inform us of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains.

Please call me at 619-659-2312 or Ernest Pingleton at 619-659-2314 or email, rteran@viejas-nsn.gov or epingleton@viejas-nsn.gov , for scheduling. Thank you.

Sincerely,

Ray Teran, Resource Management
VIEJAS BAND OF KUMEYAAY INDIANS

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Appendix C

CONFIDENTIAL Figure C-1 Cultural Resources in the PAL

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Appendix D

CONFIDENTIAL Site Forms

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Appendix E

Nonconfidential Monitoring Locations

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Table E-1 Proposed Activities and Applicable Mitigation Measures

Activity	Mitigation Measure to Implement	Applies to ESA or MA
Herbicide and seeding with no ground disturbance	MM-CUL-01	ESA 1 through ESA 4
Ground-disturbing activities	MM-CUL-02 to MM-CUL-03	MA 1 through MA 8
Ground-disturbing activities within mining extent	None	None
Stream improvements	MM-CUL-02 to MM-CUL-03	MA 1 through MA 8
Road improvements/closure	MM-CUL-02 to MM-CUL-03	MA 1 through MA 8
Weed control-mechanical	MM-CUL-02 to MM-CUL-03	MA 1 through MA 8
Sign installation	None	None
Fence installation	MM-CUL-02 to MM-CUL-03	MA 3

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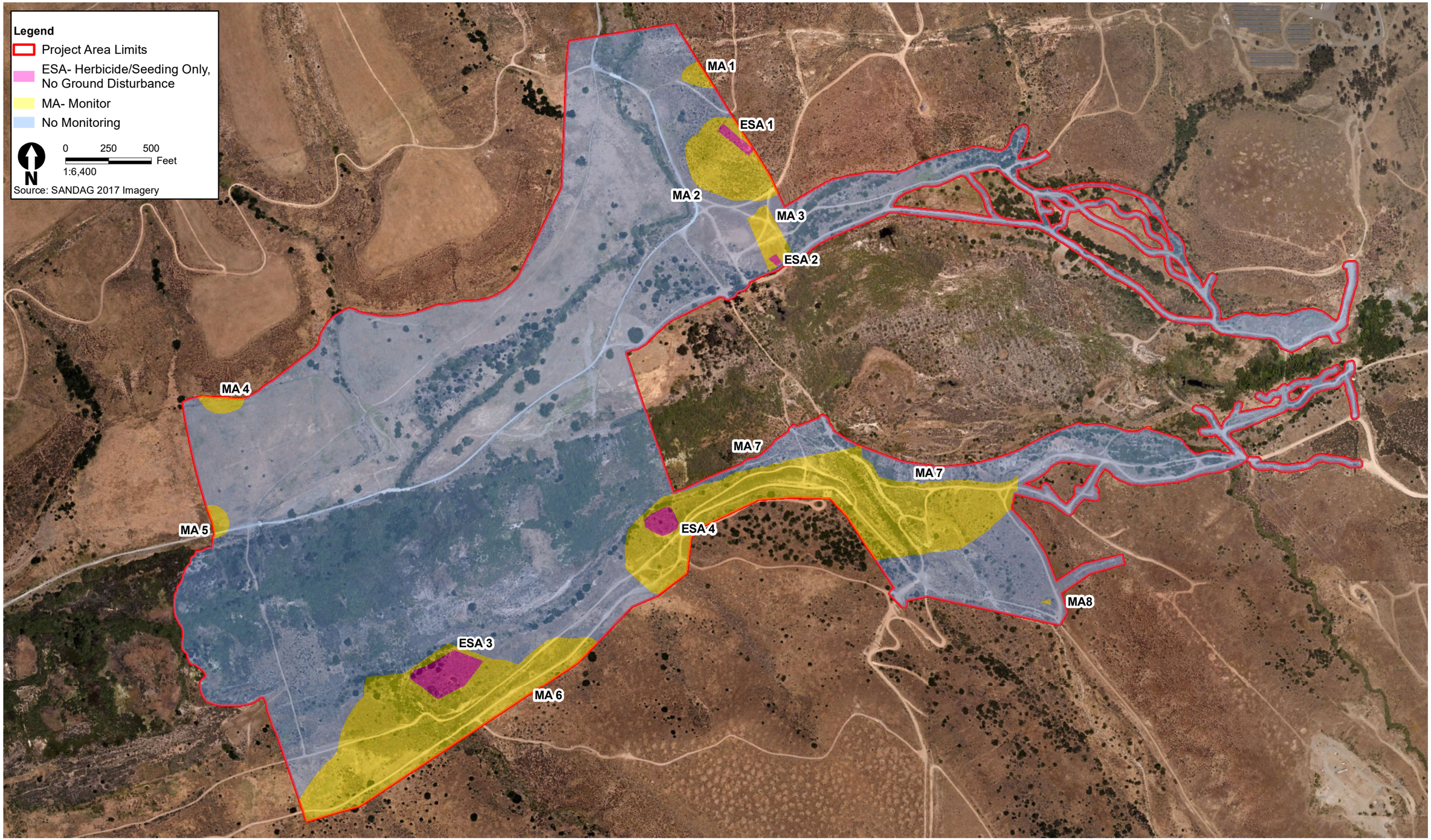

Figure E-1
Cultural Resources Monitoring within PAL
Otay River Restoration Project; City of Chula Vista Mitigation Bank Expansion and Trail Alignment

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