DRAFT
Archaeological Inventory and Assessment:
Cottonwood Sand Mine Project
PDS2018-MUP-18-023
PDS2018-RP-18-001

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National Archaeological Database Information

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Client/Project Proponent:	New West Investment Group, Inc., 565 N. Magnolia Avenue, El Cajon, CA 92020
Report Date:	March 2021
Report Title:	Archaeological Inventory and Assessment: Cottonwood Sand Mine Project
Type of Study:	Archaeological Survey and Phase I Testing
New Sites:	P-37-038837 (CA-SDI-22864) and P-37-038838 (CA-SDI-22865)
Updated Sites:	P-37-004765 (CA-SDI-4765), P-37-005468 (CA-SDI-5468), P-37-016257 (CA-SDI-14767), P-37-027624 (CA- SDI-17943), and P-37-027625
USGS Quad:	Jamul Mountains and El Cajon 7.5' Quadrangles
Acreage:	Approximately 280 acres
Permit Numbers:	PDS2018-MUP-18-023; PDS2018-RP-18-001
Key Words:	San Diego County; Township 16 South, Range 1 West/1 East; Rancho Jamacha; Jamacho/Jamacha land grant; Valle De Oro Community Planning area; Jamacha Valley ; Rancho San Diego; Willow Glen Drive; Sweetwater River; Cottonwood Golf Course; positive archaeological survey; lithic scatter, flaked stone, shell scatter; CA-SDI-4765, CA-SDI-5468, CA-SDI-14767, CA- SDI-17943; P-37-027625, CA-SDI-22864, and CA-SDI-22865; Phase I testing; no significant resources.

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AD	Anno Domini
AMSL	above mean sea level
APN	Assessor's Parcel Number
BP	Before Present
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
cm	centimeter
CRHR	California Register of Historical Resources
CY	cubic yard
DPR	Department of Parks and Recreation
g	gram
HELIX	Helix Environmental Planning, Inc.
MLD	Most Likely Descendant
MUP	Major Use Permit
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
RP	Reclamation Plan
RPO	Resource Protection Ordinance
SDNWR	San Diego National Wildlife Refuge
SLF	Sacred Lands File
SCIC	South Coastal Information Center
STP	shovel test pit
TCR	Tribal Cultural Resources
TCP	Traditional Cultural Properties
USGS	U.S. Geological Survey

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) was contracted by New West Investment Group, Inc. to provide cultural resources services for the Cottonwood Sand Mine Project (project) located within the Valle De Oro Community Planning area in unincorporated San Diego County. The project is a proposed sand mining operation within an approximately 280-acre Area of Potential Effect (APE).

A cultural resources study was undertaken by HELIX Environmental Planning, Inc. (HELIX) between August 2018 and November 2018 and included a review of previous studies of the project site, a records search conducted at the South Coastal Information Center (SCIC), Sacred Lands File search, Native American outreach, a field survey of the project site, and archaeological testing. The study was conducted in accordance with the Resource Protection Ordinance (RPO), Section 21083.2 of the Public Resources Code (California Environmental Quality Act [CEQA]) and the San Diego County CEQA Guidelines.

The records search conducted at the SCIC indicated that 114 previous cultural resources studies have been conducted within one mile of the project area, 18 of which overlap or are immediately adjacent to the project site. The records search results also indicated that a total of 83 cultural resources have been previously recorded within one mile of the project area, five of which have been documented within or immediately adjacent to the APE: P-37-004765 (CA-SDI-4765), P-37-005468 (CA-SDI-5468), P-37-016257 (CA-SDI-14767), P-37-027624 (CA- SDI-17943), and P-37-027625.

The field investigations included intensive pedestrian survey of the project area by HELIX archaeologists and a Kumeyaay Native American monitor on August 16 and 17, 2018. As a result of the survey, one of the previously recorded prehistoric archaeological sites, CA-SDI-17943, was reidentified within the project area. In addition, two newly identified prehistoric archaeological sites, P-37-038837 (CA-SDI-22864) and P-37-038838 (CA-SDI-22865), were observed within the project site. Of the remaining previously recorded resources, CA-SDI-4765 was found to be adjacent, but not within the project area; CA-SDI-5468 was determined through desktop research to be inaccurately mapped within the project area; the portion of the historic site CA-SDI-14767 that once crossed the project area has been destroyed; and prehistoric isolate P-37-027625 could not be reidentified.

CA-SDI-17943, CA-SDI-22864, and CA-SDI-22865 are located within the areas proposed for mining and would be subject to direct impacts from project implementation. In order to assess potential project impacts, archaeological testing was undertaken by HELIX to evaluate the significance of these resources. All three sites are light density lithic and shell scatters situated within disturbed contexts. Testing did not identify intact subsurface components at these sites. Furthermore, the sites contain poor integrity, due to the construction and ongoing maintenance and restructuring of the golf course. CA-SDI-17943, CA-SDI-22864, and CA-SDI-22865 are recommended as not eligible for listing on the California Register of Historical Resources (CRHR) or the Local Register, not eligible for protection under RPO guidelines, and as not significant under CEQA. However, all archaeological sites are considered important under County guidelines. Impacts to the archaeological resources have been reduced to a level below significant through testing, recording, and documentation undertaken as part of this current study.

The Sacred Lands File has indicated that Native American cultural sites are present within the project area, and the project has been noted by the Native American community/Kumeyaay people to be within a culturally significant area. To date, no Tribal Cultural Resources (TCRs) that currently serve religious or other community practices are known to exist within the project area.

Due to the cultural sensitivity of the project region and the alluvial setting of the project site, a pre-survey and monitoring program is recommended for the project. As a result of Native American consultation, a Treatment and Preservation Agreement will be implemented.

1.0 INTRODUCTION

HELIX Environmental Planning, Inc. (HELIX) was contracted by New West Investment Group, Inc. (proponent) to provide cultural resources services for the Cottonwood Sand Mine Project (project), located within the Valle De Oro Community Planning area in the unincorporated area of San Diego County. The project is a proposed sand mining operation within an approximately 280-acre area.

This report details the methods and results of the cultural resources study and has been prepared to comply with County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Cultural Resources: Archaeological and Historical Resources (2007), the Resource Protection Ordinance (RPO), and the California Environmental Quality Act (CEQA). The cultural resources study included a records search, Sacred Lands File search, Native American outreach, a review of historic aerial photographs and maps, a pedestrian survey, and archaeological testing. Stacie Wilson, M.S., RPA served as principal investigator and is the primary author of this technical report. Ms. Wilson is on the County of San Diego CEQA Consultant List for Archaeological Resources and meets the qualifications of the Secretary of Interior's Standards and Guidelines for archaeology. Julie Roy, B.A. served as report contributor. Mary Robbins-Wade, M.A, RPA provided overall project management support and senior technical review. Red Tail Monitoring and Research, Inc. provided Native American (Kumeyaay) monitors for the fieldwork.

1.1 PROJECT LOCATION AND DESCRIPTION

The project is located in eastern San Diego County, within the unsectioned Jamacho land grant within Township 16 South, Range 1 West and 1 East, on the U.S. Geological Survey (USGS) 7.5-minute Jamul Mountains and El Cajon topographic quadrangles (Figures 1 and 2, *Regional Location* and *USGS Topography,* respectively). The project site located southeast of State Route (SR) 54 (Jamacha Road), on the south side of Willow Glen Drive, along the Sweetwater River (Figure 3, *Aerial Vicinity*). The approximately 280-acre acre project site is located within the following Assessor's Parcel Numbers (APNs): 506-021-19-00, 506-020-52, 518-012-13, 518-012-14, 518-030-05 thru 518-030-08, 518-030-10, 518-030-12, 518-030-13, 518-030-15, 518-030-21, 518-030-22-00, 519-010-15, 519-010-17, 519-010-20, 519-010-21, 519-010-33, 519-010-34, 519-010-37 and 519-011-03. The project includes the following discretionary actions:

- A Major Use Permit (MUP) PDS2018-MUP-18-023 to allow mining activities on 251.1 acres of the 279.8-acre property; and

- A Reclamation Plan (RP) PDS2018-RP-18-001 to specify the standards to which the site must be reclaimed upon completion of mining activities in accordance with the California Surface Mining and Reclamation Act of 1975 (SMARA).

The project site is currently occupied by the Cottonwood Golf Course, which consists of two 18-hole courses. The project proposes to convert the two golf courses to a sand mining operation that would be conducted in three phases over an approximately 10-year period (Figure 4, *Mining Phases*). Aggregate extraction during Phase 1 would be located within the area currently occupied by the closed 18-hole golf course at the western portion of the project. Phase 2 would be located in the center of the site, east of Steele Canyon Road, on the currently operating Ivanhoe Course. Phase 3 mine operations would encompass the remaining acreage of the Project site located to the east of Phase 2. Upon approval of

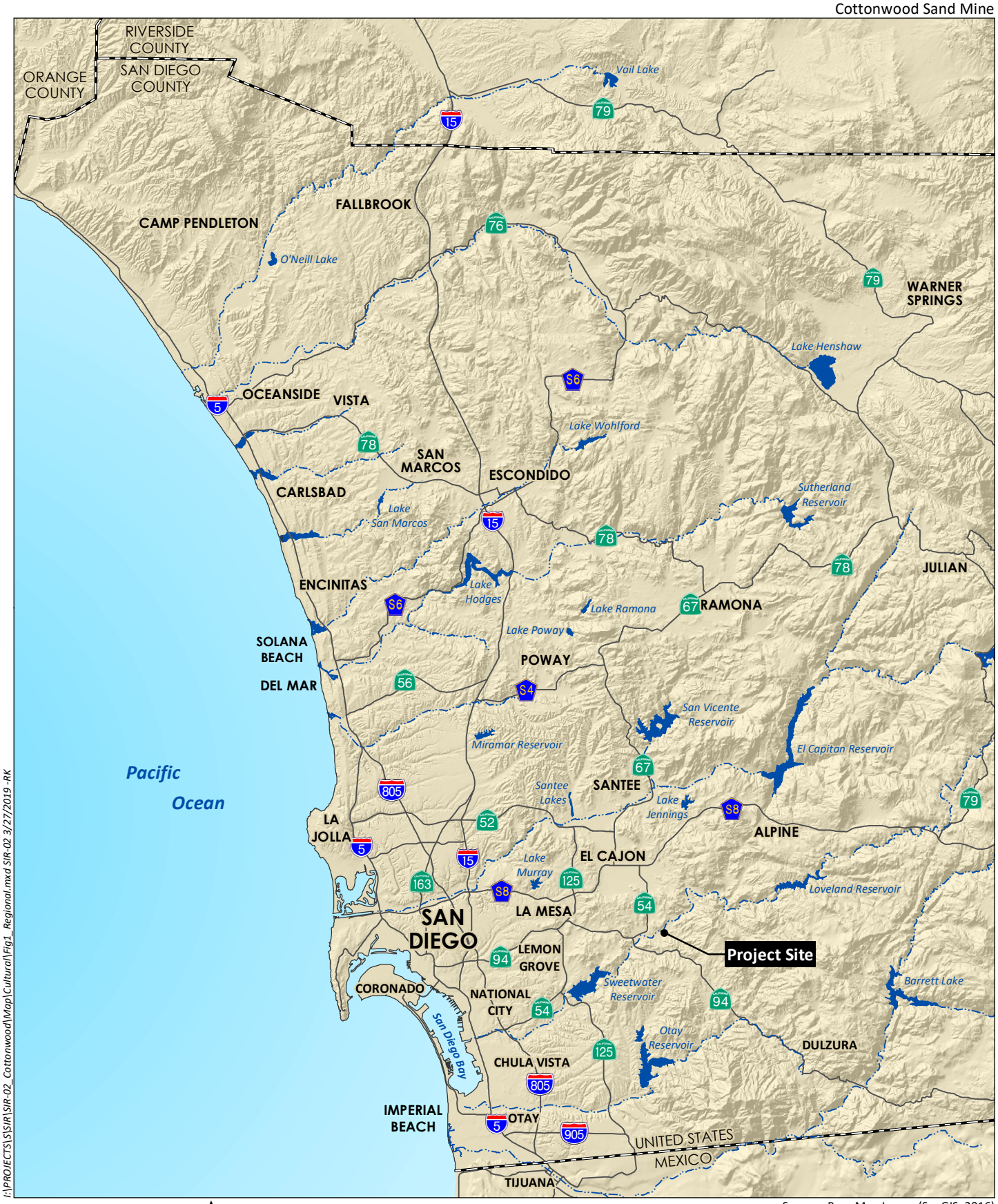
the Project and the related MUP, the Ivanhoe Course would be closed; the existing golf clubhouse would be demolished near the end of Phase 2 mining. Phase 4 would consist of removal of the processing plant, grading to final contours, final reclamation and revegetation efforts, cleanup, and equipment removal.

Approximately 214 acres of the 251-acre MUP area are proposed for extractive use (Figure 4). The project's mining operations would extract, process, and transport aggregate using conventional earth moving and processing equipment. Approximately 4.3 million cubic yards (CY) (6.40 million tons) of material would be extracted, with approximately 3.8 million CY (5.7 million tons) produced for market use. Extraction operations would be limited to a maximum production of 380,000 CY (570,000 tons) of construction grade aggregate (sand) per calendar year. Sand extracted and processed at the site would be suitable for construction uses and would be available to customers in San Diego County.

The project would be developed in three continuous phases, described above, with sub-phases in each major phase. In addition, a phase of reclamation would follow the mining phases. Pre-mining activities proposed prior to the initiation of Phase 1 would include the improvement of Willow Glen Drive to four lanes from Steele Canyon Road to the project egress driveway, improvements to the access point from Willow Glen Drive to the Phase 1 excavation area, and installation of screening landscaping. Operations would begin with the placement of the processing plant and the conveyor line from the plant to the western portion of the property where Phase 1 would commence. Existing vegetation and infrastructure in the existing and former golf courses would be removed as mining operations proceed, with approximately 20 to 30 acres subject to mining at any one time. The maximum excavation depth is proposed to be 40 feet below the existing land surface (bgs) outside the river channel. The average depth of excavation is expected to be approximately 20 feet bgs.

As part of the Willow Glen Drive road improvements, a new, paved access ramp off Willow Glen Drive would be provided to the west of the existing driveways that exit to the processing plant as a one-way road. This would serve as the primary access for mining operations, material sales, employees, and vendors. This road would continue to a new egress point in the approximate center of the existing parking lot. A second access road would be installed on the western edge of the project at the intersection of Muirfield Drive and Willow Glen Drive. The new driveway would be restricted to servicing the mining operations. A new access point to the property from Willow Glen Drive west of Steele Canyon Road (Phase 1 area) would be necessary, as the clearance height of the bridge that crosses the Sweetwater River on Steele Canyon Road would not allow most large trucks or heavy equipment used for mining operations to pass beneath the bridge. This access would be used primarily for mobilization/demobilization, servicing of heavy equipment and reclamation for the Phase 1 area west of Steele Canyon Road. The existing golf clubhouse would be demolished near the end of Phase 2 mining.

Reclamation would be an ongoing process starting in the second year as mining proceeds to the east. Upon completion of the extraction activities, reclamation would occur in accordance with the mining and reclamation plan. The final landform is proposed to be a relatively flat plain that gently slopes downward from east to west, with a widened river channel bisecting the length of the site. The reclaimed river channel is expected to average approximately 250 to 300 feet in width. The widened river channel and associated graded slopes would be restored by planting the areas with native riparian and upland vegetation. Reclaimed and revegetated areas would be restored to an end use of undeveloped lands, recreational trails, and land suitable for uses allowed by the General Plan land use designation and existing zoning classifications.



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Source: Base Map Layers (SanGIS, 2016)

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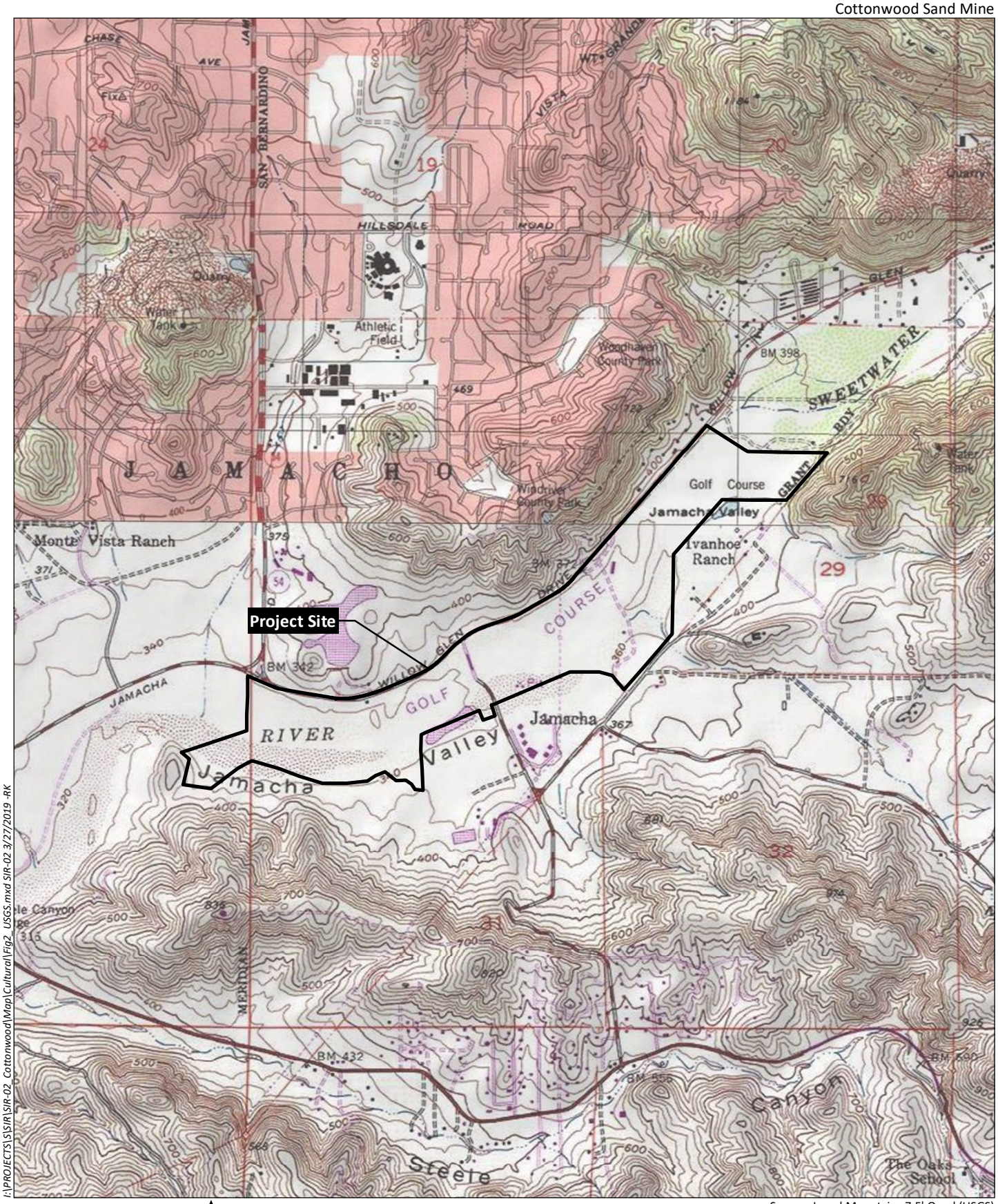
Regional Location

Figure 1



Source: Jamul Mountains 7.5' Quad (USGS)

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HELIX Environmental Planning

USGS Topography

Figure 2

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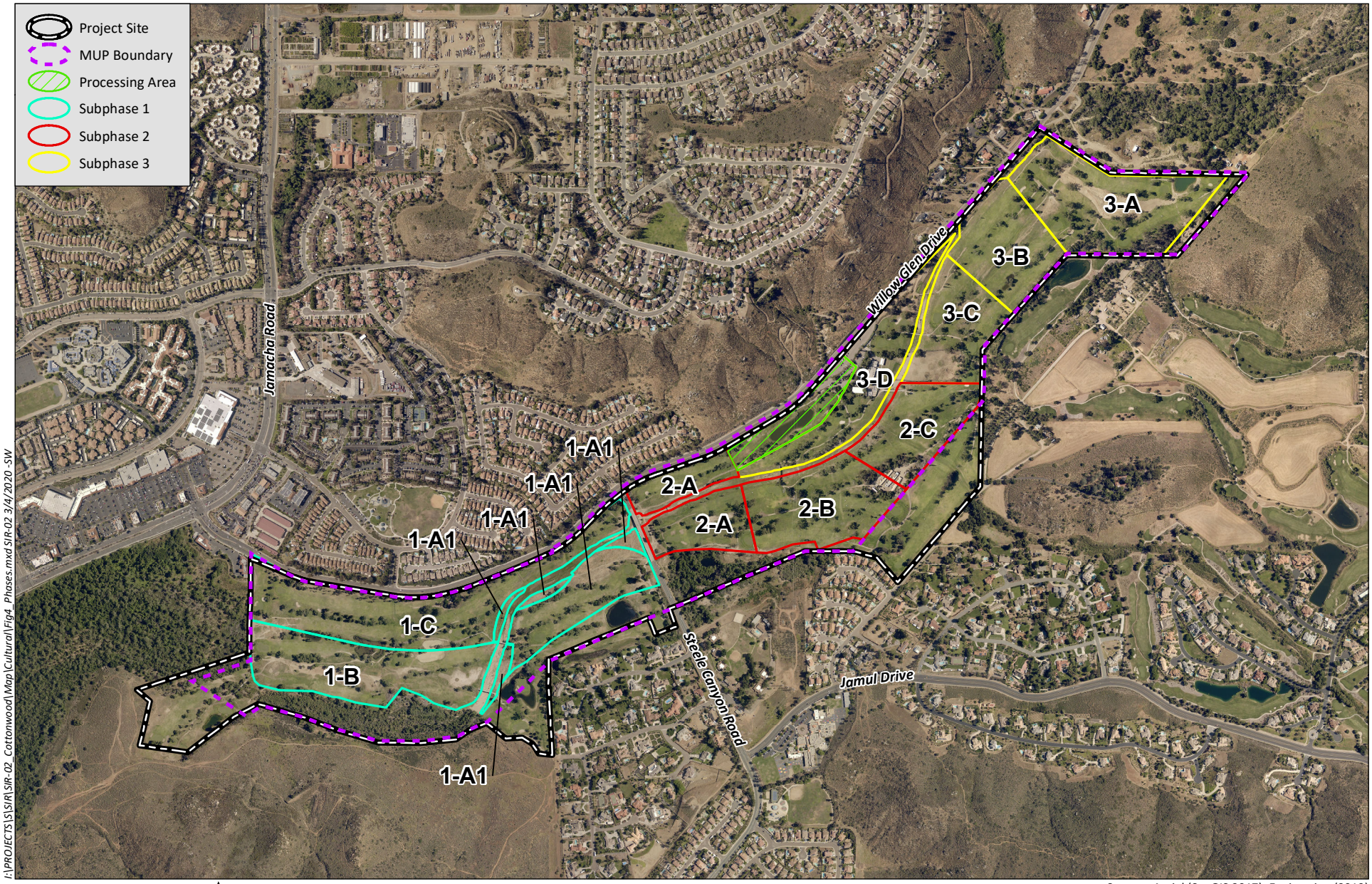
Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Aerial Vicinity

Figure 3



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Source: Aerial (SanGIS 2017); Enviromine (2019)

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Mining Phases

Figure 4

1.2 EXISTING CONDITIONS

1.2.1 Environmental Setting

1.2.1.1 Natural Environment

The project area is situated within the inland foothills of western San Diego County, where the climate is characterized as semi-arid steppe, with warm, dry summers and cool, moist winters (Hall 2007; Pryde 2004). The project area is within the Jamacha Valley of the western portion of the Peninsular Ranges geomorphic province of southern California. Steele Canyon and San Miguel Mountain are to the south of the project, and McGinty Mountain is to the east. The project site is situated within the floodplain of the Sweetwater River, which flows in a northeast-to-southwest direction through the central portion of the site. The elevation of the project area ranges from approximately 320 to 380 feet above mean sea level (AMSL).

As noted above, the project site is currently occupied by the Cottonwood Golf Course, which consists of two 18-hole courses, one which is currently still active. Modern land uses in the project vicinity include residential and rural residential development to the north and south, both residential and commercial development to the northwest, residential and extractive operations to the east, and an adjacent golf course to the southeast. Open space is present in the hills south, east, and west of the site. A National Wildlife Refuge abuts the western end of the property, along the river.

The project site is underlain by alluvial deposits dating to the Late Holocene (Tan 2002a and 2002b). Alluvial channel deposits are primarily present through the central portion of the project area, with floodplain deposits located on the north and south sides of the channel deposits (Geocon 2019). The channel deposits "generally consists of loose, fine- to course-grained sand with varying amounts of silt and gravel" and the floodplain deposits are characterized by "soft to firm, micaceous, sandy clay, sandy silt, and silty sand" (Geocon 2019: 2). In addition, geotechnical borings conducted within the project site revealed areas of undocumented fill at several locations (Geocon 2017). The fill was generally present within the top 6 feet of soil and is "generally composed of loose to medium dense, silty to clayey sand and sandy clay with trace gravel" (Geocon 2019: 2). Granitic rock underlays the alluvium deposits and is mapped along the northern border of the project site (Geocon 2017; Tan 2002a and 2002b).

Nine soil series have been mapped in the project site; however, two of the soils, Tujunga sand (0 to 5 percent slopes) and riverwash, cover the majority of the project site (NRCS 2018). Tujunga sand soils occur on floodplains and are comprised of alluvium derived from granite. The Tujunga sand series supports vegetation of annual grasses and forbs with a few scattered oaks. Riverwash soils are found within drainageways and are composed of sandy, gravelly, or cobbly alluvium derived from mixed sources. Riverwash can be observed with many barren areas but supports scattered sycamores and coast live oaks which grow along the banks of the drainage channels, and sparse shrubs and forbs which occur in patches (Bowman 1973). The remaining soils mapped within the project site include Visalia sandy loam (0 to 2 percent slopes and 2 to 5 percent slopes) and Vista coarse sandy loam (15 to 30 percent slopes), with small areas of Cieneba coarse sandy loam (5 to 15 percent slopes, eroded), Cieneba very rocky coarse sandy loam (30 to 75 percent slopes), Vista coarse sandy loam (9 to 15 percent slope), and Visalia sandy loam (9 to 15 percent slopes).

Biological surveys conducted by HELIX identified southern cottonwood-willow riparian forest, southern willow scrub, and freshwater marsh within the project area, among other vegetation communities

(HELIX 2020). These vegetation communities and types were also likely present within the project site prehistorically. Prior to historic and modern activities, major drainages such as the Sweetwater River contained extensive stands of the riparian community with plants such as sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*) and willow (*Salix* sp.) (Beauchamp 1986; Munz 1974). These plants, as well as other native plant resources supported by these habitats, would have been used by Native American populations for clothing, food, tools, decorative, and ceremonial purposes (Christenson 1990; Cuero 1970; Hedges and Beresford 1986; Luomala 1978). Many of the animal species living within these communities (such as rabbits, deer, small mammals, and birds) would have been used by native inhabitants as well. Rabbits, jackrabbits, and rodents were important to the prehistoric diet; deer were somewhat less significant for food, but were an important source of leather, bone, and antler.

1.2.1.2 Cultural Environment

Prehistoric Period

The earliest well-documented sites in the San Diego area belong to the San Dieguito Tradition, dating to over 9,000 years ago (Warren 1967; Warren et al. 1998). The San Dieguito Tradition is thought by most researchers to have an emphasis on big game hunting and coastal resources (Warren 1967). Diagnostic material culture associated with the San Dieguito complex includes scrapers, scraper planes, choppers, large blades, and large projectile points (Rogers 1939; Warren 1967). In the southern coastal region, the traditional view of San Diego prehistory has the San Dieguito Tradition followed by the Archaic Period, dating from circa 8600 years Before Present (BP) to circa 1300 BP (Warren et al. 1998).

A large number of archaeological site assemblages dating to this period have been identified at a range of coastal and inland sites. These assemblages, designated as the La Jolla/Pauma complexes, are considered part of Warren's (1968) "Encinitas tradition" and Wallace's (1955) "Early Milling Stone Horizon." The Encinitas tradition is generally "recognized by milling stone assemblages in shell middens, often near sloughs and lagoons" (Moratto 1984:147) and brings a shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. The local cultural manifestations of the Archaic period are called the La Jollan complex along the coast and the Pauma complex inland. Pauma complex sites lack the shell that dominates many La Jollan complex site assemblages. Sites dating to the Archaic Period are numerous along the coast, near-coastal valleys, and around estuaries. In the inland areas of San Diego County, sites associated with the Archaic Period are less common relative to the Late Prehistoric complexes that succeed them (Cooley and Barrie 2004; Laylander and Christenson 1988; Raven-Jennings and Smith 1999; True 1970). The La Jolla/Pauma complex tool assemblage is dominated by rough cobble tools, especially choppers and scrapers (Moriarty 1966). The La Jolla/Pauma complex tool assemblage also include manos and metates; terrestrial and marine mammal remains; flexed burials; doughnut stones; discoidals; stone balls; plummets; biface points; beads; and bone tools (True 1958, 1980).

While there has been considerable debate about whether San Dieguito and La Jollan patterns might represent the same people using different environments and subsistence techniques, or whether they are separate cultural patterns (e.g., Bull 1983; Ezell 1987; Gallegos 1987; Warren et al. 1998), abrupt shifts in subsistence and new tool technologies occur at the onset of the Late Prehistoric Period (1500 BP to AD 1769). The Late Prehistoric period is characterized by higher population densities and intensification of social, political, and technological systems. The Late Prehistoric period is represented by the San Luis Rey complex in the northern portion of San Diego County and the Cuyamaca complex in

the southern portion. Late Prehistoric artifactual material is characterized by Tizon Brown Ware pottery, various cobble-based tools (e.g., scrapers, choppers, and hammerstones), arrow shaft straighteners, pendants, manos and metates, and mortars and pestles. The arrow point assemblage is dominated by the Desert Side-notched and Cottonwood Triangular points, but the Dos Cabezas Serrated type also occurs (Wilke and McDonald 1986). Subsistence is thought to be focused on the utilization of acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources, except immediately adjacent to the coast, where they assumed primary importance (Bean and Shipek 1978; Sparkman 1908). The settlement system is characterized by seasonal villages where people used a central-based collecting subsistence strategy.

In addition to the point of view discussed above, it is recognized that other perspectives exist to explain the presence of Native Americans in the region. The Native American perspective is that they have been here from the beginning, as described by their creation stories. Similarly, they do not necessarily agree with the distinction that is made between different archaeological cultures or periods, such as “La Jolla” and “San Dieguito.” They instead believe that there is a continuum of ancestry from the first people to the present Native American populations of San Diego.

Ethnohistory

Based on ethnographic data, including the areas defined for the Hokan-based Yuman-speaking peoples (Kumeyaay) and the Takic-speaking peoples (Luiseño) at the time of contact, it is now generally accepted that the Cuyamaca complex is associated with the Kumeyaay and the San Luis Rey complex with the Luiseño. The name Luiseño derives from Mission San Luis Rey de Francia and has been used to refer to the Indian people associated with that mission, while the Kumeyaay people are also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcala). Agua Hedionda Creek is often described as the division between the territories of the Luiseño and the Kumeyaay people (Bean and Shipek 1978; Luomala 1978), although various archaeologists and ethnographers use slightly different boundaries. Traditional stories and songs of the Native people also describe the extent of traditional use areas.

The project area is in the traditional territory of the Kumeyaay people, whose population in San Diego in the late 1700s was estimated to be 20,000. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherias. Most rancherias were the seat of a clan, although it is thought that, aboriginally, some clans had more than one rancheria and some rancherias contained more than one clan, often depending on the season within the year (Luomala 1978). Each village was comprised of many households, and groups of villages were part of a larger social system, referred to as a consanguineal kin group (*cimuL*) (Carrico 1998). Campsites and villages were chosen based on proximity to water, boulder outcrops, environmental protection, and availability of plants and animals (Luomala 1978). Consequently, many of the Kumeyaay villages or rancherias were located in river valleys and along the shoreline of coastal estuaries (Bean and Shipek 1978; Carrico 1998; Kroeber 1976).

Several major villages were located along the Sweetwater River, including *Hamacha (Jamacho)* and *Metí*, located downriver from the project, and *Matamo* and *Sekwan*, located upriver from the project (Carrico 2008).

Jamacho is documented archaeologically on the northern banks of the Sweetwater River at Jamacha Junction, approximately 0.5 miles to the west (downriver) of the project site (Carrico 2008; Heutt 1979; Shipek 1976a). The village is described by Florence Shipek as “a main village area, near junction with

Sweetwater, and then scattered groups of houses up and down both sides of valley of river and side canyons such as Steele Canyon" (Shipek 1976a). Archeological investigations undertaken at this location, recorded as CA-SDI-4782 (P-37-004782), yielded evidence of habitation, with over 4,400 artifacts and ecofacts being recovered on the surface or subsurface (Heutt 1979). Occupation of the site dates to AD 1,000, but it may have elements dating to 3,000 BC (Rosen 1983 in Pigniolo et al. 1992).

An area approximately 1.5 miles upriver from CA-SDI-4782, south of the Sweetwater River and immediately south of the project area at the area marked as "Jamacha" on topographic maps, was noted by Shipek as having been "occupied until about 1910 – was lived in by Delfina Cuero and Isabel Thing" (Shipek 1976b). In her autobiography, Cuero states "I was born at xamca (Jamacha) about sixty-five years ago [about 1900]" (Cuero 1970:23). The Museum of Man noted on a 1977 records search that the site location documented by Shipek (SDM-W-1145) was recorded from ethnohistorical data and had not been archaeologically defined (Schiowitz 1978). Shackley (1979) hypothesized that the archaeologically documented location of *Jamacho* may be the village of Delfina Cuero's birthplace, as mentioned by Shipek (1976a).

Another location to the north of Sweetwater River, at the approximate location of the historic Monte Vista Ranch and a half-mile north of the western end of the project, was recorded by Shipek as having been "occupied between 1880 and 1910 at least by [*unreadable*] informants Isabel Thing and Matilda Osuna and others" (Shipek 1976c). In addition, an interview with Native American elder, Rosalie P. Robertson, in the late 1970s places the location of *Jamacho* to the northeast of the archaeological deposits located at Jamacha Junction (CA-SDI-4782), "near the Cottonwood Golf Course," with the area recorded as CA-SDI-4782 being a resource processing area (Heutt 1979: 82). However, while historic material associated with Monte Vista Ranch was documented during a survey at this described location, no prehistoric or Native American cultural material was identified (Heutt n.d.). As noted on the site form for this site, CA-SDI-8321 (P-37-008321), this area "may be an area discussed in oral tradition and be of importance without archaeological evidence to support the oral tradition" Huett (n.d.). The location of Cottonwood Golf Course being the possible location of *Jamacho* was presented by both Rosalie P. Robertson and Tony Pinto again in interviews conducted in 1980 (Berryman 1980 cited in Schaefer et al. 1992). This was also designated by Robertson as Cuero's birthplace in approximately 1900.

It is likely that a larger area of houses, habitation areas, and resource processing areas within the Sweetwater River valley and its side canyons, such as Steele Canyon, as noted by Shipek (1976a), best represents the late prehistoric village, or rancheria, of *Jamacho,* than solely the recorded location of archaeological site CA-SDI-4782. However, as discussed below, the various locations of Native American occupation areas situated within or near the project site at the turn of the twentieth century, as told to Shipek and others in the 1970s and early 1980s, may be reflections of historic-period residences, and not ethnohistoric village locations.

History

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769. In the mid-18th century, Spain had escalated its involvement in California from exploration to colonization (Weber 1992) and in that year, a Spanish expedition headed by Gaspar de Portolá and Junípero Serra established the Royal Presidio of San Diego. Portolá then traveled north from San Diego seeking suitable locations to establish military presidios and religious missions in order to extend the Spanish Empire into Alta California.

Initially, both a mission and a military presidio were located on Presidio Hill overlooking the San Diego River. A small pueblo, now known as Old Town San Diego, developed below the presidio. The Mission San Diego de Alcalá was constructed in its current location five years later. The missions and presidios stood, literally and figuratively, as symbols of Spanish colonialism, importing new systems of labor, demographics, settlement, and economies to the area. Cattle ranching, animal husbandry, and agriculture were the main pursuits of the missions. The project vicinity was known as Rancheria San Jacome de la Marca and was used by the mission for goat and sheep grazing (Van Wormer 1981, 1984).

Based on mission records, eight Native American residents from the Rancheria San Jacome de la Marca, or Jamacha, were baptized by Spanish missionaries in 1775 (Kyle and Gallegos 1995; Van Wormer 1984). That same year, a revolt involving at least fourteen Native American villages, including *Jamacho*, occurred at the Mission San Diego de Alcalá, resulting in the deaths of three Spaniards (Carrico 1997, 2008). However, Mission records indicate that baptisms of Native Americans from *Jamacho* continued, with over 50 habitants from the Jamacha Valley being baptized by 1809 (Van Wormer 1981).

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

The ranchos put new pressures on California's native populations, as grants were made for inland areas still occupied by the Kumeyaay, forcing them to acculturate or relocate farther into the back-country. Sensing the threat of secularization, the priests at Mission San Diego de Alcalá 'granted' a portion of the mission's grazing land in Jamacha Valley to Doña Apolinaria Lorenzana, in order to try to preserve what they could of the lands they perceived as belonging to the mission (Van Wormer 1981). Lorenzana, who was a devout catholic known as 'La Beata,' settled in the Sweetwater River valley in 1831 and built an adobe "house, horse corral, and lime kiln on the west side of [Jamacha Valley] and planted wheat and corn in the valley's bottom, on the east side of the Sweetwater River" (Van Wormer 1981). Lorenzana had been born in Mexico but had lived most her life at the mission.

In order to obtain a rancho, an applicant submitted a petition containing personal information and a land description and map (diseño). In 1833, Lorenzana applied to the Mexican government for ownership of Jamachá, and in 1840, Rancho Jacome de la Marca, or Jamacha, was granted to her by Governor Juan Alvarado (Van Wormer 1981) (Figure 5, *Map of the Tract of Land Jamachá*). In 1841, the new Mexican government reaffirmed the grant, which consisted of 8,881 acres from the eastern borders of Rancho de la Nación east about 8 miles along Sweetwater Valley (Brackett 1951). During this time, Lorenzana continued to primarily live at the Mission San Diego de Alcalá, but ultimately moved from the San Diego area to San Juan Capistrano after the Mormon Battalion occupied the mission in 1847 (Van Wormer 1984).

American governance began in 1848, when Mexico signed the Treaty of Guadalupe Hidalgo, ceding California to the United States at the conclusion of the Mexican–American War. A great influx of settlers to California and the San Diego region occurred during the American Period, resulting from several factors, including the discovery of gold in the state in 1848, the end of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an

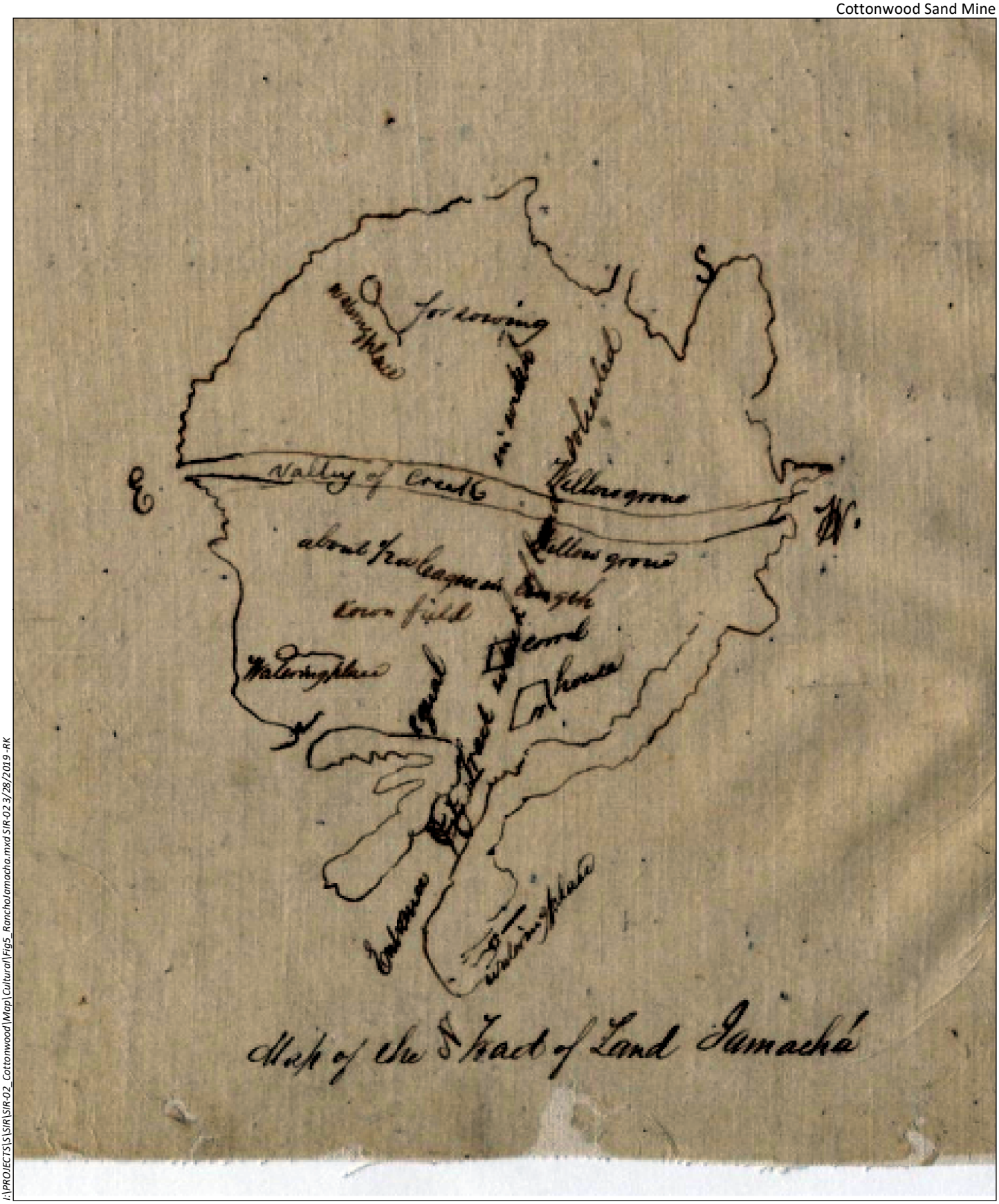
agricultural area supported by roads, irrigation systems, and connecting railways. The increase in American and European populations quickly overwhelmed many of the Spanish and Mexican cultural traditions, and greatly increased the rate of population decline among Native American communities.

While the American system required that the newly acquired land be surveyed prior to settlement, the Treaty of Guadalupe Hidalgo bound the United States to honor the land claims of Mexican citizens who were granted ownership of ranchos by the Mexican government. The Land Act of 1851 established a board of commissioners to review land grant claims, and land patents for the land grants were issued throughout the following years. In 1852, Lorenzana submitted a petition to the Land Commission for Rancho Jamacha (Van Wormer 1981). By this time, the rancho was being used for cattle grazing by American Colonel John Blankhead Magruder, who then purchased the land from Lorenzana in January 1853. Later that same year Magruder sold two-thirds of rancho to Eugene Pendleton, Frank Ames, and Asher Eddy; the four men, along with Robert Kelly, had formed a partnership in 1852 (Van Wormer 1981). Although she was no longer the owner of Rancho Jamacha by this time, Lorenzana received the patent to the rancho on April 11, 1871.

The partners ran the ranch like a business, devoting the land to animal husbandry and agriculture. Kelly managed the land, living in Lorenzana's adobe, and made it the "first successful large-scale agricultural enterprise in the county" (Van Wormer 1984). However, the enterprise was short-lived; in 1858, Kelly terminated his portion of the partnership and moved to what is now Old Town San Diego. In the 1860s, the value of livestock collapsed, and the ranch underwent a series of divisions and ownership changes throughout the 1870s. By 1881, the ranch was divided into nine parcels by court order, with the current project area being included in several of the resulting divisions initially owned by the estate of Magruder (ordered sold by the Court), Minnie G. Stockton, and Norman H. Conklin (Van Wormer 1981:23).

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

The community of Jamacha was one such community, with its nucleus being formed around the school house located at the mouth of Mexican Canyon, on the south side of the project site (Figure 6, *1903 Cuyamaca [1:125,000] Topographic Map*). By the late 1880s, the project vicinity had been transformed "into productive farmlands supporting a small agricultural community" (Van Wormer 1981:23). In 1881, 132 acres covering the southern portion of the project site had been deeded to Norman H. Conklin, who moved to San Diego after the civil war and developed a law practice. Although, the Conklin family lived in the city of San Diego, they had a residence in Jamacha Valley. The middle section of the project site was owned by James Murphy, who had homesteaded 160 acres adjacent to Rancho Jamul and then purchased 668 acres of the rancho in 1882. Murphy initially raised sheep, but ultimately converted his lands over to agricultural endeavors, and grew wheat, barley, and corn. Murphy's house was located near, but on the other side of Sweetwater River, from Conklin's place. Their residences may be those depicted within and adjacent to the project site on the 1903 Cuyamaca topographic map (Figure 6). The northern section of the project site was located in lands purchased in 1882 by Uri Hill. Although Hill resided in El Cajon, he had a stock farm and grew alfalfa and barley in Jamacha Valley (Van Wormer 1981).



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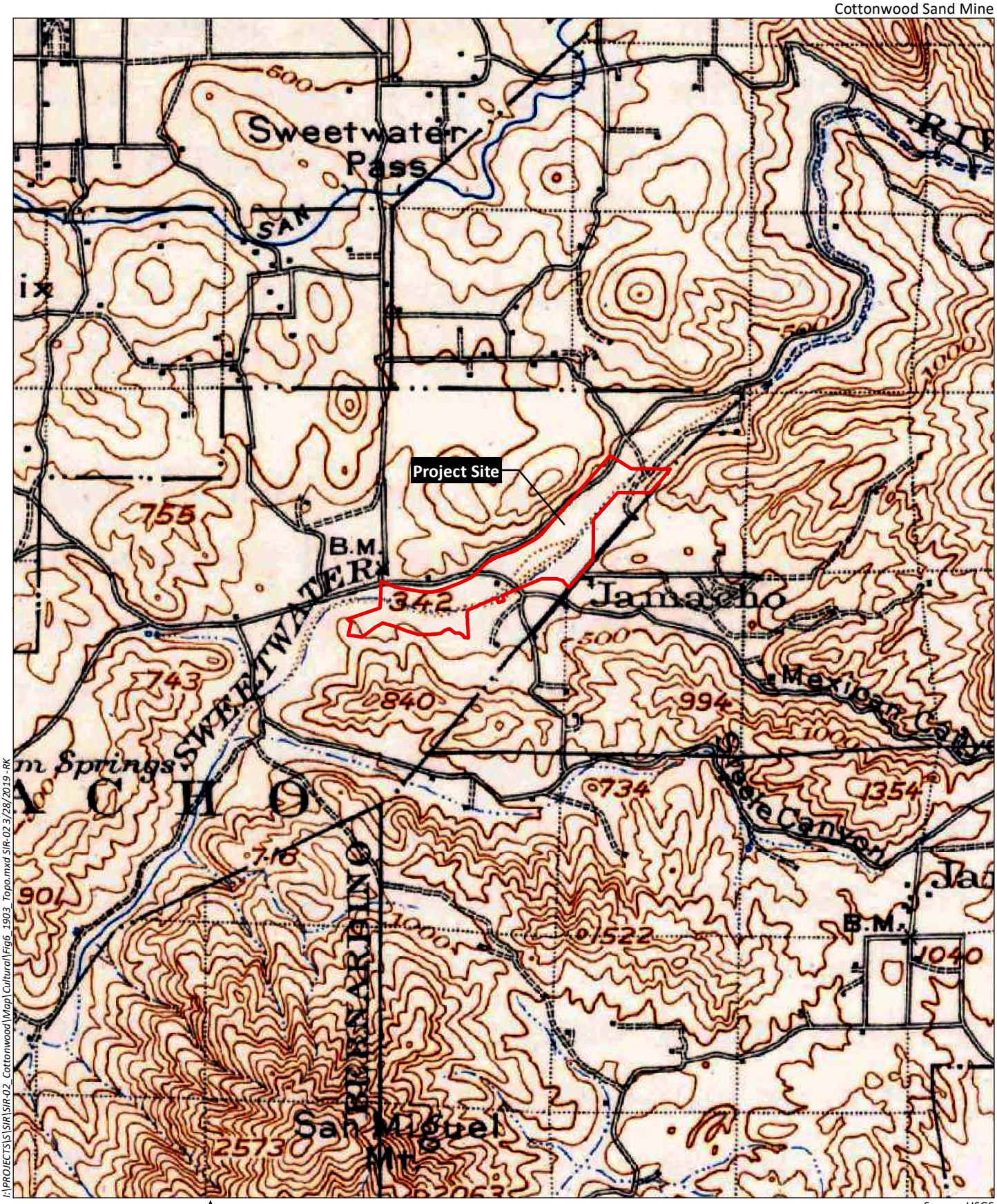
Source: Calisphere, University of California

HELIX Environmental Planning

Map of the Tract of Land Jamachá

Figure 5



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Source: USGS

HELIX Environmental Planning

1903 Cuyamaca (1:125,000) Topographic Map

Figure 6

In 1885, a schoolhouse was constructed within Murphy's landholdings, but in 1898 the location of the schoolhouse was moved to the area shown as Jamacho/Jamacha on USGS topographic maps, south of the project site. In 1895, a post office was established, and the settlement of Jamacha continued to grow. In 1898, Noah Peters purchased a half-acre from Murphy next to the school and established a blacksmith shop in 1901. The 1903 Cuyamaca topographic map indicates that a church or religious building was present at the settlement (Figure 6). In 1915, Peters became the postmaster and operated a general store. Murphy continued to sell portions of land in this area, and by 1910, a well-established community was present. In addition to the American families residing in Jamacha Valley, school records also indicate the names of several Native American children, some of whom are noted as residing in Section 31 of Township 16 South and Range 1 East, which is the location of Jamacha (Van Wormer 1981).

In the 1890s, Monte Vista Ranch was established by George Davis in the parcel to the northwest of the project (Figure 7, *1939 El Cajon and 1943 Jamul [1:62,500] Topographic Maps*). After changing ownership a few times, the property was deeded to the Sefton family in 1905, who owned the property until the 1940s as the Sefton Investment Company (Van Wormer 1981). The Seftons planted citrus and olive orchards, grapes, and corn and established several structures and residences for workers on the ranch. The Seftons employed Native Americans as laborers who resided at the ranch; two houses at the end of Pepper Tree Lane were occupied by Native American families (Jacques 1980).

Acreage to the west of the project area, at the location of the archaeologically defined area of *Jamacho*, was purchased in 1910 by the Winterstein family, who established a ranch and pig farm, and grew wheat and barley for over 30 years before selling the ranch to the Seftons in 1941. The Wintersteins sold a few small parcels of their land at the intersection of Campo and Jamacha roads, which resulted in the small community of Jamacha Junction forming at this location (Van Wormer 1981).

Ivanhoe Ranch, located to the east of the project site on the north side (Figure 7), was part of the lands originally owned by the Stocktons at the time of the 1881 court-ordered division. The Stockton family purchased additional land to the east of the Rancho Jamacha land grant, increasing their landholdings to a total of 185 acres. In 1907, the property was sold to Julius Kuert, who grew olives, grapes, melons, barley, hay, and alfalfa, and raised chickens, cows, and pigs. By the 1920s, the property changed ownership twice more, and became known as Ivanhoe Ranch (Van Wormer 1981).

While the various ranches and landholders within Jamacha Valley enjoyed decades of successful farming and ranching endeavors, in 1922 the post office in Jamacha closed, and by the early 1930s, much of the land within and surrounding the project vicinity had changed through several owners. A majority of the valley ultimately came under the ownership of the California Water and Telephone Company, which was the successor of the Sweetwater Company, who had taken over the operation of Sweetwater Dam in 1902 (Van Wormer 1981).

The influence of military development, beginning in 1916 and 1917 during World War I, and the need to fight a two-ocean war during World War II resulted in substantial development of infrastructure and industry within the San Diego area to support the military and accommodate soldiers, sailors, and defense industry workers. In the 1950s and 1960s, a population boom and the development of infrastructure, such as freeways and aqueducts, pushed residential development further into the eastern areas of San Diego, including the Jamacha Valley. During this time, the California Water and Telephone Company landholdings were transferred to Cotton Wood Acreage, and in 1970, to the Associated Land Company. However, a small portion of land had been set aside for the Cottonwood Golf

Course and was not included in this acquisition. The Associated Land Company envisioned building 6,000 homes in the Jamacha Valley surrounding the golf course (Van Wormer 1981).

In the 1970s, the urban development of Rancho San Diego began, with the first subdivision for a portion of the Rancho San Diego village, Sweetwater Village West, being filed (County of San Diego 1996). By 1979, the remainder of Rancho San Diego, encompassing almost 3,000 acres, was approved for a Specific Plan allowing over 6,300 residential units, shopping centers, and community land uses. By 2000, the population of Rancho San Diego reached over 20,000 people.

1.2.2 Record Search Results

HELIX staff conducted a record search of the California Historical Resources Information System (CHRIS) at the South Coastal Information Center (SCIC) on August 13, 2018. On a subsequent visit to the SCIC in March 2019, it was noted that survey data from the Ivanhoe Ranch property, located adjacent to the project area on the northeast, had been filed with the CHRIS subsequent to the August 2018 records search conducted for the project. The preliminary Ivanhoe Ranch survey report (Pignolio 2017) and documented cultural resources have been included in the record search results described below.

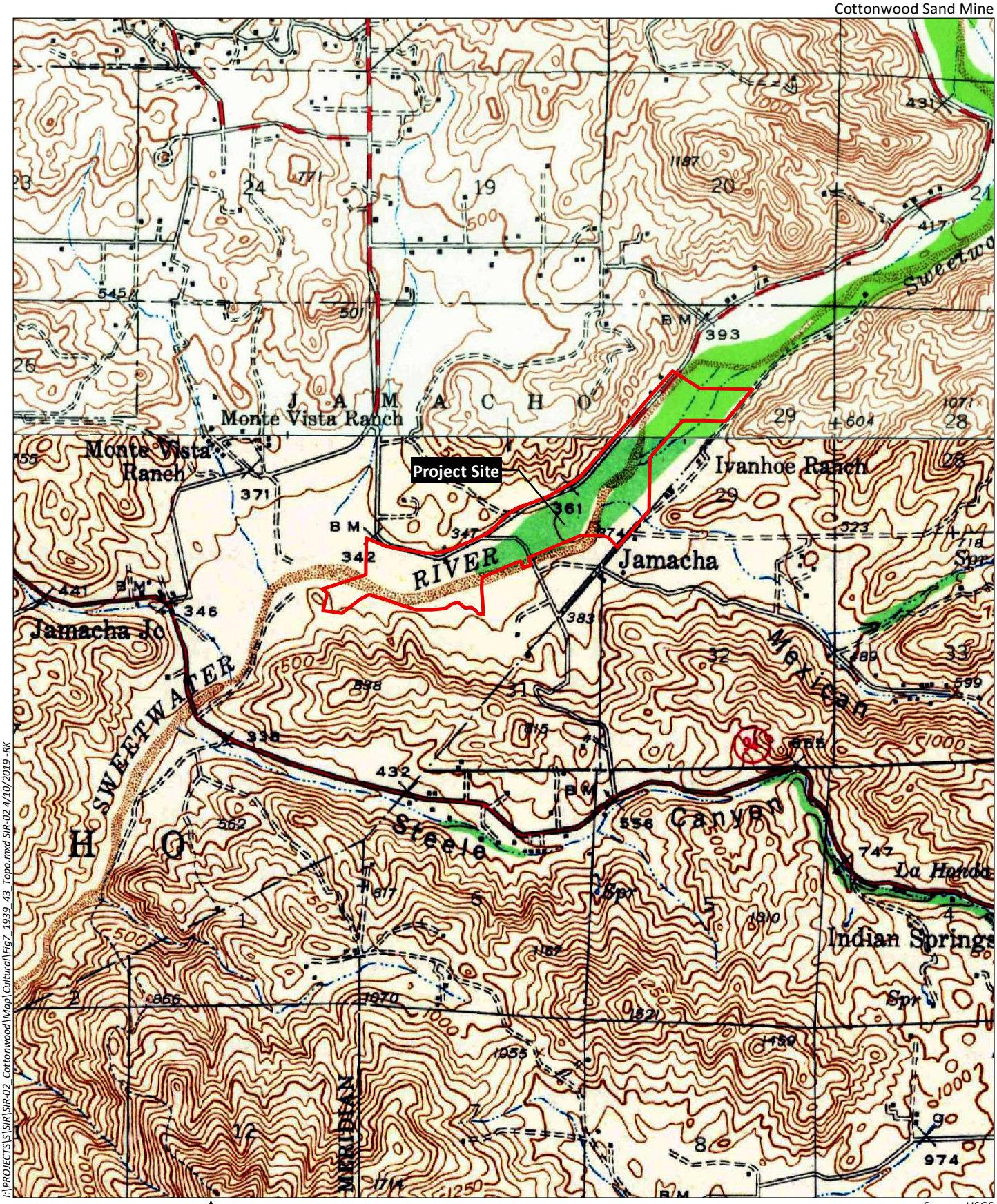
The records search covered a one-mile radius around the project area and included archaeological and historical resources, locations and citations for previous cultural resources studies, and a review of the state Office of Historic Preservation (OHP) historic properties directory. The records search summary and map are included as Appendix A (Confidential Appendices, bound separately).

1.2.2.1 Previous Studies

The SCIC has a record of 114 cultural resource studies conducted within a one-mile radius of the project area, 18 of which are within or adjacent to the project site (Table 1, *Previous Studies within or Adjacent to the Project Area*). The full list of reports is included in Appendix A (Confidential Appendices, bound separately).

Table 1
PREVIOUS STUDIES WITHIN OR ADJACENT TO THE PROJECT AREA

Report No. (SD-#)	Report Title	Author, Date	Report Type
00179	An Archaeological Survey: Proposed Willow Glen Drive Sewer Main	Barbolla-Rolan and Axford, 1984	Archaeological Survey Report
00576	Cottonwood Meadows Archaeological Survey Report	Carrico, 1977	Archaeological Survey Report
00979	An Archaeological Survey of Rancho San Diego	Gross and Ezell, 1972	Archaeological Survey Report
01986	APS/SDG&E Interconnection Project Transmission System Environmental Study Phase Two Corridor Studies Cultural Resources: Archaeology Appendices	Wirth Associates, 1974	Archaeological Study
02175	Draft Environmental Impact Report for Rancho San Diego Specific Plan SPA 87-001 R87-006 Log #87-19-6	Mooney-Lettieri and Associates, Inc., 1987	Environmental Impact Report



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0 3,000 Feet

Source: USGS

1939 El Cajon and 1943 Jamul (1:62,500) Topographic Maps

HELIX Environmental Planning

Figure 7

Table 1 (cont.)
PREVIOUS STUDIES WITHIN OR ADJACENT TO THE PROJECT AREA

Report No. (SD-#)	Report Title	Author, Date	Report Type
02439	Appendices for Supplemental Draft Environmental Impact Report for Rancho San Diego Tentative Map	Jacks and Lacy, 1990	Environmental Impact Report
03334	Archaeological Testing at CA-SDI-4763, Locus 2 for the Jamacha Boulevard Improvements Project, El Cajon, San Diego County, California	Robbins-Wade and Whitehouse, 1995	Archaeological Testing Report
03702	Cultural Resource Survey Report Form for The Ridge at Willow Glen (County PIA-98001) Jamacha Valley, San Diego County, California	Wade and Van Wormer, 1998	Cultural Resources Survey Report
03836	Southwest Powerlink Cultural Resources Management Plan	Townsend, 1984	Cultural Resources Management Plan
04849	APS/SDG&E Interconnection Project System Environmental Study Phase II Corridor Studies Native American Cultural Resources	Wirth Associates, 1980	Cultural Resources Report
05345	Environmental Impact Report Rancho San Diego Specific Plan San Diego County, California Appendices Volume II	PRC Toups Corporation, 1979	Environmental Impact Report
06425	Historic Resources Inventory Sweetwater Valley	Carrico, Carrico, Crawford, and Flanigan, 1990	Historic Resources Inventory
08620	Preliminary Archaeological Investigations of W-1146 Spring Valley, California	Heuett, 1979	Preliminary Archaeological Investigations Report
09827	Preliminary Report for the Archaeological Data Recovery Program at CA-SDI-4765 Rancho San Diego - Jamacha Village West, San Diego County, California	Schaefer, Cook, and Palette, 1992	Preliminary Archaeological Data Recovery Program Report
10346	Cultural Resources Survey for The Cottonwood Golf Course Enhancement L-Grade Project, Rancho San Diego, California (L-14806)	Pigniolo, Lauko, and Linton, 2005	Cultural Resources Survey Report
10478	An Archaeological Reconnaissance of Windmill Farms San Diego County	Schiowitz, 1978	Archaeological Reconnaissance Report
11626	Draft Environmental Assessment for the Proposed Acquisition of Rancho San Diego, Sweetwater II, and Lot 707 Properties from the Resolution Trust Corporation for the Proposed San Diego National Wildlife Refuge Otay-Sweetwater Refuge Unit	U.S. Department of The Interior, 1995	Environmental Assessment
17010	Ivanhoe Ranch, Rancho San Diego, California, Major Pre-application (APN 518-03-037-00) - Cultural Resources	Pigniolo, 2017	Cultural Resources Survey Preliminary Report

A 1,300-acre area of Jamacha Valley was initially surveyed in 1972 for the Rancho San Diego Land Company (Gross and Ezell 1972). The overall study area included the current project site; however, the golf course was not surveyed “because soil disturbance and/or cultivation will have masked or

obliterated remains in these areas" (Gross and Ezell 1972: 9). The survey resulted in the recordation of 54 archaeological sites, comprised of flaking stations, milling stations, habitation sites, and historic sites. Prior to this survey, only two cultural resources had been documented in the Rancho San Diego area: Isham Springs (at Sweetwater Springs) and one site recorded by Treganza south of the Steele Canyon bridge.

In 1978, the entire Rancho San Diego area was included in a comprehensive survey that resulted in the identification of 40 prehistoric archaeological sites and 13 historic sites (Schaefer et al. 1992); however, this study is not on file at the SCIC, and it is not known if the survey included the Cottonwood Golf Course.

In 1977, an approximately 30-acre area south of the project site was surveyed for the Cottonwood Meadows project (Carrico 1977), and in 1978, a larger study area to the west of the Cottonwood Meadows project was surveyed for the Windmill Farm property (Schiowitz 1978). The Schiowitz (1978) survey boundary is shown at the SCIC as extending into the project site, but that is not accurate; the survey area was entirely outside (but adjacent) to the golf course. The two surveys resulted in the identification of a total of five archaeological sites, but as noted by Schiowitz, upwards of 10 isolated lithic artifacts were encountered within an area of 140 acres of plowed fields, but they were not documented as cultural resources on site record forms (1978:21).

In 2005, portions of the Cottonwood Golf Course were surveyed by Laguna Mountain Environmental, Inc. for proposed pond locations (Pigniolo et al. 2005). This is the only cultural resources survey to have specifically been undertaken within the project area; however, only a total of 35 acres across 10 different areas were included in the 2005 study area (see Appendix A). The survey resulted in the identification of one prehistoric site and one prehistoric isolate, which are discussed below.

1.2.2.2 Previously Recorded Sites Within Records Search Area

The SCIC has a record of 83 previously recorded cultural resources within a one-mile radius of the project area, four of which that are mapped within the project site (Table 2, *Previously Recorded Resources within One Mile of the Project*). The resources consist of 22 historic-period buildings, structures, or archaeological sites; five multi-component archaeological sites; 44 prehistoric archaeological sites; and 12 prehistoric isolates.

The 39 prehistoric sites include bedrock milling features, some with associated artifacts, and sites described as "temporary camps", "habitation sites", and "limited use food processing stations" which include artifacts such as flaked stone, ground stone, Tizon Brown Ware pottery, and in four cases, midden soil. The prehistoric isolates consist of flakes and bifaces. The multi-component resources consist of lithic scatters habitation sites, and milling features, with historic artifacts, trash scatters, or remnants of ranches also present. The 22 historic resources consist of two bridges constructed between 1926 and 1929, a stone and cement mortar structure, the SR 94 highway constructed between 1910 and the 1920s, trash dumps or scatters (with many being specifically bottle scatters), the remains of a farming complex, stone walls and terraces, a barbed wire corral area with other associated elements and structures, the Julian Leffering Ranch established in 1893, resources associated with the Ivanhoe Ranch, and the Hillsdale Knoll Site constructed in 1930.

Table 2
PREVIOUSLY RECORDED RESOURCES WITHIN ONE MILE OF THE PROJECT

Primary Number (P-37-#)	Trinomial Number (CA-SDI-#)	Age and Resource Type Present	Description	Site Dimensions	Recorder, Date
000186	186	Prehistoric Site	Habitation site consisting of a lithic scatter and 15 bedrock milling features with 14 slicks and one mortar	108x158m^2	Treganza, n.d.; Bull, 1972; Bosque and Abelon, 2017
004650	4650	Prehistoric Site	Bedrock milling feature with many elements, some midden around the milling feature, a lithic scatter consisting of flakes, and two Tizon Brown Ware pottery sherds	91x18m^2	Bull and Gross, 1972
004651	4651	Prehistoric Site	Lithic scatter and one shell fragment	46x46m^2	Loughlin and Gross, 1972; Roth and Associates, 1987
004652	4652	Prehistoric Site	Lithic scatter and one Tizon Brown Ware pottery sherds	30x30m^2	Bull, 1972
004653	4653	Prehistoric Site	Bedrock milling feature with many elements, one associated mano	69x23m^2	Fink, 1972
004654	4654	Prehistoric Site	Bedrock milling feature with many elements, one associated mano	25x25m^2	Fink, 1972
004655	4655	Prehistoric Site	Bedrock milling feature with many elements and “possibly” some midden	Not reported	Bull, 1972
004758	4758	Historic Site	Trash scatter containing bottles dating from the late 1800s to early 1900s	3x5m^2	Fink, 1972; Hintzman, Rotemund and Texier, 1992; Potter, 2010
004760	4760	Prehistoric Site	Lithic scatter with possible midden	61x30m^2	Fink, 1972
004761	4761	Multi-component site	Bedrock milling features with many elements, an associated lithic scatter, and one shell; two historic artifacts were also identified	69x27^2	Cupples, 1972
004762	4762	Prehistoric Site	Lithic scatter	10x20m^2	Fink, 1972
004765	4765	Prehistoric Site	Bedrock milling feature with one element and associated artifact scatter	91x46m^2	Cupples, 1972
004767	4767	Prehistoric Site	Bedrock milling features with many elements and an associated lithic scatter	100x50m^2	Cupples, 1972; Schiowitz, 1978
004780	4780	Prehistoric Site	Lithic scatter	50m^2	Gross, 1974

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

Primary Number (P-37-#)	Trinomial Number (CA-SDI-#)	Age and Resource Type Present	Description	Site Dimensions	Recorder, Date
004782	4782	Multi-component site	Possible village at Jamacha; large midden area; high density surface and subsurface lithic scatter, ceramics scatter, shell and mammal bone, and hearths and roasting pits. Has been determined eligible for listing in the National Register of Historic Places (NRHP); remnants of Winterstein/ Sefton ranch; a Spanish coin and a Phoenix button also identified	91x457m^2	Bull, 1933; Shackely, 1979; Pigniolo, Schultze and Webb, 1992; Kraft, 2011
004882	4882	Prehistoric Isolate	One flake	Not reported	Corum, Pilgram, Fulmer, Wessel, 1977
004883	4883	Prehistoric Site	Lithic scatter and one shell	Not reported	Corum, Pilgram, Fulmer, Wessel, 1977
004884	4884	Historic Site	Bottle scatter with an unassociated brick and concrete fireplace	0.60x0.3m^2	Corum, Pilgram, Fulmer, Wessel, 1977; Potter, 2010
004968	4968	Prehistoric Site	Bedrock milling features with many elements	20x25m^2	Carrico, 1977
005468	5468	Multi-component site	Heavily disturbed lithic scatter; historic trash scatter also present	40x100m^2	Schiowitz, 1978
005469	5469	Prehistoric Site	Bedrock milling feature with one element	1mx1m^2	Schiowitz, 1978
005670	5670	Prehistoric Site	Lithic scatter	Not reported	Loughlin, 1974
005671	5671	Prehistoric Site	Bedrock milling feature with three elements and associated lithic scatter	35mx30m^2	Loughlin, 1978; Roth and Associates, 1987
006981	6981	Historic Structure, District and Element of District	SR 94: two-lane, rural highway that provides the principal access from east San Diego's urban areas to the southeastern communities of San Diego County, including the International Port of Entry at Tecate, Mexico. The highway was originally constructed 1910-1920s	Not reported	Burkenroad, 1978; Dominici and Tsunoda, 2010; Supernowicz, 2011
007842	7842	Prehistoric Site	Shell and lithic scatter	Not reported	Hightower, 1980; Chace, 1980; NWB, 2013

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

Primary Number (P-37-#)	Trinomial Number (CA-SDI-#)	Age and Resource Type Present	Description	Site Dimensions	Recorder, Date
008319	8319	Historic Site	Stone walls and terraces, concrete spillway, flow control valve, scattered concrete blocks and scrap iron	50x50m^2	Heuett, n.d.
008320	8320	Multi-component site	Bedrock milling feature with many elements; historic trash scatter also present	30x30m^2	Heuett, n.d.
008321	8321	Historic Site	Monte Vista Ranch complex; Sefton house, bunkhouse-schoolhouse, horse barn, well, palm and Spanish pepper tree-lined lanes; scattered farming implements	Not reported	Heuett, n.d.
008322	8322	Prehistoric Site	Bedrock milling feature with three slicks and two basins; faunal remains consisting of fish vertebrae, and lithic scatter	25x25m^2	Heuett, n.d.
008323	8323	Historic Site	Stone wall utilized as a retaining wall	Not reported	Heuett and Berryman, n.d.
008325	8325	Prehistoric Site	Lithic scatter	25x25m^2	Heuett, n.d.
008326	8326	Multi-component site	Bedrock milling features with many elements, Tizon Brown Ware ceramic, and a lithic scatter; historic trash scatter and house foundation	50x50m^2	Heuett, n.d.
010877	10877	Prehistoric Site	Lithic scatter	50x50m^2	Roth and Associates, 1987
010878	10878	Historic Site	Remains of farming complex constructed in 1925 with associated trash scatter	350x280m^2	Roth and Associates, 1987
012174	12174	Historic Site	Barbed wire corral area; long rock embankment; road/driveway and cobble wall border remnant associated with a 1920s house/fields	Not reported	Roth, 1991
012822	12822	Prehistoric Site	Milling features with several elements and one associated lithic flake	90x160m^2	Hintzman, Rotemund, and Texier, 1992
012823	12823	Prehistoric Site	Four bedrock milling features with one slick each, and a possible remnant of a hearth ring	30x15m^2	Hintzman, Rotemund, and Texier, 1992
012824	12824	Prehistoric Site	Eight bedrock milling features, with one, two, or three slicks each	140x100m^2	Hintzman, Rotemund, and Texier, 1992
012825	12825	Prehistoric Site	Three bedrock milling features with slicks, and associated basin metate fragment	50x600m^2	Hintzman, Rotemund and Texier, 1992

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

Primary Number (P-37-#)	Trinomial Number (CA-SDI-#)	Age and Resource Type Present	Description	Site Dimensions	Recorder, Date
012826	12826	Prehistoric Site	One bedrock milling feature with many elements	5x5m^2	Hintzman, Rotemund and Texier, 1992
012827	12827	Historic Site	Trash scatter dating from the late 1800s to the early 1900s	45x55m^2	Pigniolo, Campbell and Mealey, 1992
015597	14342	Prehistoric Site	Bedrock milling feature with one slick	5x10m^2	James, Briggs, Glenn, 1995
016257	14767	Historic Structure	Stone and cement mortar structure, small stone building and a welded galvanized tank dating to circa 1899	Not reported	Hanna and Helm, 1997
016544	--	Historic Building	Residential building constructed in the vernacular architectural style between 1902 and 1928	Not reported	Van Wormer, 1998
017037	15071	Prehistoric Site	Bedrock milling feature with one slick	2x2.5m^2	Pigniolo, 1999
017040	15076	Prehistoric Site	Three bedrock milling features, each with one slick	30x50m^2	Pigniolo, 1999
017234	15083	Prehistoric Site	Bedrock milling feature with two slicks	20x10m2	Pigniolo, 1999
017235	15086	Prehistoric Site	Bedrock milling features and associated remains of a partially displaced rock ring	15x10m^2	Pigniolo, 1999
017236	15087	Prehistoric Site	Bedrock milling feature with one slick and a scatter of slabs possibly representing a portion of a rock ring	10x10m^2	Pigniolo, 1999
017237	15090	Prehistoric Site	Bedrock milling feature	10x5m^2	Pigniolo, 1999
017242	--	Prehistoric Isolate	One Santiago Peak Volcanic flake	<1m^2	Pigniolo, 1999
017243	--	Prehistoric Isolate	One Santiago Peak Volcanic flake	<1m^2	Pigniolo, 1999
017244	--	Prehistoric Isolate	Two flakes of Santiago Peak Volcanic	<1m^2	Pigniolo, 1999
017245	--	Prehistoric Isolate	One Santiago Peak Volcanic flake fragment	<1m^2	Pigniolo, 1999
017246	--	Prehistoric Isolate	One Santiago Peak Volcanic early state biface fragment	<1m^2	Pigniolo, 1999
017453	--	Historic Structure	Bridge #57-110 constructed by the County in 1926 and widened by the state in 1970	22x23ft	Pursell, 1979
017454	--	Historic Structure	Bridge #57-111 constructed by the County in 1929	150x460ft	Pursell, 1979

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

Primary Number (P-37-#)	Trinomial Number (CA-SDI-#)	Age and Resource Type Present	Description	Site Dimensions	Recorder, Date
017571	--	Historic Building	Julian Leffering Ranch (Chu House), constructed in 1893 (estimated) in the Queen Anne Victorian architectural style	19.23 acres	Brandes, 1985
017572	--	Historic Building	Hillsdale Knoll Site, constructed in 1930 in the Spanish Eclectic architectural style with classical features	19.23 acres	Brandes, 1985
024410	16186	Prehistoric Site	Lithic scatter with a possibly related isolate	30x30m^2	Pigniolo, 2001
024411	16187	Prehistoric Site	Limited use food processing station with associated bedrock milling feature, lithic artifacts, and one ceramic sherd	20x50m^2	Pigniolo, 2001
024412	--	Prehistoric Isolate	One Santiago Peak Volcanic interior flake	<1m^2	Pigniolo, 2001
024759	16401	Prehistoric Site	Bedrock milling features	210x39m^2	Collett, 2002
027624	17943	Prehistoric Site	Sparse lithic scatter	20x10m^2	Linton and Pigniolo, 2005
027625	--	Prehistoric Isolate	Two flakes	<1m^2	Linton and Pigniolo, 2005
028939	18576	Prehistoric Site	Bedrock milling feature with slicks and basins, and associated scattered midden and flakes	15x15m^2	Fink, 1975
033559	21089	Prehistoric Site	Bedrock milling feature and associated flake scatter	Not reported	Blake and Tsunoda, 2014
034783	21640	Historic Site	Trash dump	15x9m^2	Sinsky, Apodaca, and Hipwood, 2015
037258	--	Prehistoric Isolate	Bifacial mano fragment	<1m^2	Pigniolo, 2018
037259	--	Prehistoric Isolate	One Santiago Peak Volcanic lithic tool (scraper)	<1m^2	Pigniolo, 2018
037260	--	Prehistoric Isolate	One Santiago Peak Volcanic debitage (flake)	<1m^2	Pigniolo, 2018
037261	--	Prehistoric Isolate	One Santiago Peak Volcanic retouched debitage flake	<1m^2	Pigniolo, 2018
037262	22307	Prehistoric Site	Sparse lithic scatter with one core and debitage	25x40m^2	Pigniolo, 2018
037264	22309	Prehistoric Site	Four bedrock milling features with a total of six elements (slicks)	12x31m^2	Pigniolo, 2018
037265	22310	Prehistoric Site	Eight bedrock milling features with a total of 14 elements (slicks and one basin), with an associated Tizon Brown Ware body sherd	63x31m^2	Pigniolo, 2018

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

Primary Number (P-37-#)	Trinomial Number (CA-SDI-#)	Age and Resource Type Present	Description	Site Dimensions	Recorder, Date
037266	22311	Prehistoric Site	Habitation site with Cottonwood Triangular points, mano fragments, hammerstone fragments, Tizon Brown Ware ceramic sherds, Santiago Peak Volcanic and quartz debitage, and marine shell fragments	211x122m^2	Pigniolo, 2018
037267	22312	Prehistoric Site	Temporary camp; manos and hammerstones	52x14m^2	Pigniolo, 2018
037268	--	Historic Site	Ivanhoe Ranch complex; bunkhouse for ranch staff with an associated well pump building and abandoned windmill tower; date of structures uncertain, likely 1920s or after	Not reported	Pigniolo, 2018
037269	--	Historic Building	Single family house associated with Ivanhoe Ranch; possibly served as main house during early years of ranch; date of structures uncertain, likely 1903 or earlier	Not reported	Pigniolo, 2018
037270	--	Historic Site	A house and associated barn in poor condition; heavily modified and with poor integrity; date uncertain, possibly 1943	Not reported	Pigniolo, 2018
037271	--	Historic Building	Single family house associated with Ivanhoe Ranch	Not reported	Pigniolo, 2018
037272	--	Historic Object	Horse/cattle water trough; may not be of historic age	Not reported	Pigniolo, 2018
037273	--	Historic Object	Horse/cattle water trough; may not be of historic age	Not reported	Pigniolo, 2018

1.2.2.3 Previously Recorded Sites Within or Adjacent to Project Site

The SCIC has a record of five archaeological resources mapped within or adjacent to the project site (Figure 8, *Locations of Previously Recorded Cultural Resources*, Confidential Appendix B). One archaeological site, CA-SDI-5468 (P-37-005468), is mis-plotted at the SCIC as within the project area but is actually located to the south of the project and one isolate, P-37-027625, is mapped at the SCIC as outside of the project site but is actually within it. These five resources are discussed here.

CA-SDI-4765 (P-37-004765)

This resource is mapped primarily adjacent to the project site on a low knoll overlooking the Sweetwater River (Figure 8). The site was originally recorded in 1972 by S. A. Cupples as a tool scatter with one milling feature. The site was recorded as consisting of "flakes, three projectile points, scrapers, core, an obsidian flake, a bone awl fragment, and one sherd of Tizon Brown Ware" within a 100-meter by 50-meter area (Cupples 1972; Gross and Ezell 1972: 14). The milling feature consisted of one slick.

No further site form updates are on file at the SCIC for CA-SDI-4765; however, the site was revisited in 1979, tested in 1981, and subjected to a data recovery program in 1992 (Schaefer et al. 1992). The 1981 testing effort defined the site as being located only within the northern portion of the hill and notes that pot-hunting activity had heavily disturbed the site.

The 1992 data recovery efforts involved the excavation of 134 shovel test pits (STPs), 56 one-meter by one-meter units, and larger excavation areas conducted with the use of a backhoe (Schaefer et al. 1992). The site was found to contain two concentration areas located at the northern and eastern areas of the hill, with subsurface deposits reaching over 100 centimeters (cm) in depth. The 1981 testing effort had identified additional bedrock milling features at the site; the 1992 data recovery program resulted in the recordation of a total of nine bedrock milling features with primarily slicks and rubs (areas possibly used for fiber or hide processing rather than seed grinding). In total, "8,237 artifacts, 490.6 grams of faunal remains, 1.8 grams of charcoal, and 100 historic items were recovered from the one by one units, MEUs [mechanical excavation units], and a limited surface collection" (Schaefer et al. 1992: V-13). The historic artifacts were primarily recovered from the upper 20 cm of the site and reflected a disturbed, non-intact, surface scatter rather than a subsurface deposit.

Due to the lack of hearth features and charcoal at the site, it was determined that the site was not an extensive habitation area and that it "probably served as a small, temporary, flaked lithic tool production/maintenance location associated with limited food and vegetal processing activities as well as manufacturing of items through the use of bone tools" (Schaefer et al. 1992: VI-1). In addition to the Late Prehistoric component identified at the site, artifacts characteristic of the Archaic Period were also recovered and it was hypothesized that this site area may have been utilized during two different temporal periods (Archaic and Late Prehistoric). Only a few pieces of ceramics were recovered from the site, suggesting either "predominantly pre-ceramic occupation of this area or that activities not requiring storage, cooking, or serving vessels were carried out at this location" (Schaefer et al. 1992: VI-1).

CA-SDI-5468 (P-37-005468)

This resource was recorded in 1978 by Bob Schiowitz as a surface scatter of ground stone and lithic artifacts consisting of four unifacial manos and five metavolcanic flake tools (Schiowitz 1978). Also noted during the 1978 survey was a post-1920 bottle, porcelain, and black clay pigeon fragments. The site was described as being immediately east of Ivanhoe Ranch Road, to the east of Cottonwood Golf Course. Possibly due to Universal Transverse Mercator (UTM) coordinate system numbers being rounded to the nearest hundredth on the site record, the resource is mapped at the SCIC as being within the Cottonwood Golf Course property (Figure 8). However, according to the locational information provided in the site record and survey report, the resource was identified approximately 2,500 feet to the south of its mapped location on file at the SCIC, placing it adjacent to, but outside of, the project site, within a now-developed private parcel.

CA-SDI-14767 (P-37-016257)

This historic site was recorded by County of San Diego Department of Public Works staff in 1997. The resource is a pump station facility consisting of four elements. The first element is a stone and cement mortar structure of two rooms with an adjoining cement holding tank. The structures measure 986 square feet and 550 square feet, respectively. The second element is a small stone building measuring 234 square feet. The third element is a welded galvanized tank. Three pipes enter this tank

and are related to the final element: two parallel flume-traces documented as two approximately 6-foot wide earth embankments (Hanna et al. 1997). The recorders could only follow the flume system to the east towards the current project site for approximately 400 feet but note that it had probably connected to an earthen dam located 2,000 feet to the east.

The site form notes the age of the historic structures as being from the turn of the twentieth century. The 1992 data recovery report for CA-SDI-4765, located on the knoll to the south of the facility, identified several historic artifacts, including amethyst glass and ceramics fragments, in the vicinity and hypothesized that they were related to the structure, which they noted as a pump station (water) and an associated outbuilding, which "may be associated with the earthen dam which is located approximately one kilometer east of the hill (Schaefer et al. 1992: V-35).

CA-SDI-17943 (P-37-027624)

This resource was recorded in 2005 by Laguna Mountain Environmental Inc. during the cultural resource survey of various areas within the Cottonwood Golf Course. The site was recorded as consisting of four flakes located on the surface, in a disturbed context along a golf course access road (Pigniolo et al. 2005). The site measured approximately 20 meters by 10 meters. The flakes consisted of two bifacial thinning flakes of Santiago Peak Volcanic material and two pieces of angular waste.

P-37-027625

This resource is an isolate consisting of two flakes, also recorded in 2005 by Laguna Mountain Environmental Inc. (Pigniolo et al. 2005). Both flakes are made from Santiago Peak Volcanic material and are lightly patinated. The flakes were identified along the eastern margin of the golf course, immediately west of Ivanhoe Ranch Road, approximately 30 meters west of where the resource is mapped at the SCIC (outside of the project site, on the east side of Ivanhoe Ranch Road; Figure 8).

Pigniolo et al. (2005) suggest that the isolated flakes may be associated with site CA-SDI-5468 due to the location of the artifacts being located approximately 50 meters northeast of the site. Schiowitz had noted that the center of CA-SDI-5468 was approximately 70 meters east of Ivanhoe Ranch Road, but that it was possible the scatter extended west across Ivanhoe Ranch Road and into the Cottonwood Golf Course (Schiowitz 1978: 10).

1.2.3 Other Archival Research

Various archival sources were also consulted, including historic topographic maps, aerial imagery, and the Bureau of Land Management (BLM) General Land Office (GLO) Records. The purpose of this research was to identify historic structures and land use in the area.

Historic aerials from 1928, 1953, 1964, 1966, 1968, and 1971 were reviewed (NETR Online 2019). Historic USGS topographic maps, including the 1893, 1901 and 1903 El Cajon (1:62,500), the 1903 Cuyamaca (1:125,000), the 1943 and 1955 Jamul (1:62,500), the 1939, 1942, and 1947 El Cajon (1:62,500), the 1955 and 1971 (1975) Jamul Mountains (1:24,000), and the 1955 and 1967 El Cajon (1:24,000) topographic maps.

Several roads and buildings appear in the project site and vicinity on the 1893, 1901, and 1903 maps, and the community of 'Jamacho' is indicated on the south side of the project site. As discussed in the History setting above, the residences depicted within and adjacent to the project site on the 1903

Cuyamaca topographic map may be those of James Murphy and Norman H. Conklin, who owned the lands at this time (Figure 6).

The topographic maps from the 1930s through the 1950s continue to depict several roads (both established and dirt) and buildings within the project area and vicinity (Figure 7). In addition to 'Jamacha' being indicated to the south of the project site, 'Ivanhoe Ranch' is shown to the north of Jamacha, and 'Monte Vista Ranch' is to the northeast of the project site.

The project site is shown primarily as river channel/floodplain and undeveloped land on the 1928 and 1953 aerial photographs (Figures 9 and 10, *1928 Aerial Photograph* and *1953 Aerial Photograph*, respectively). In the 1950s, the project site began to be mined for construction aggregates on the south side of the river and west of Steele Canyon Road. Other disturbed areas observed on the 1953 aerial photograph suggest surface mining may have been occurring adjacent to Willow Glen Drive on the western end of the property. Mineral extraction uses in this area expanded to the east side of Steele Canyon Road by the early 1960s; on the Jamul Mountains topographic map that was photo revised in 1971 and 1975, a gravel pit is indicated to the east of Steele Canyon Road.

Construction of the golf courses began in approximately 1962 with the Lakes Course (formerly the Monte Vista Course) on the western side of the property and the Ivanhoe Course on the eastern side of the property. The construction of the golf courses resulted in the Sweetwater River being confined to a narrower channel. Mining activities along Steele Canyon Road continued as both golf courses were developed, as shown on the 1966 aerial photograph (NETR Online 2019).

Since 1964, the project site has been used as a public golf course. Facilities at the golf club consist of a large parking lot, a clubhouse, practice facilities and two 18-hole golf courses. Sand extraction has continued at the site through the years, allowing for the creation of water hazards and expanded fairways associated with golf course improvements (Figure 11, *Areas Previously Mined for Sand Extraction*).

Beginning in 1966, the construction of residential houses can be seen to the south of the project site, near where the community of Jamacha was located (NETR Online 2019). In 1971, the lands to the northwest of the project site have been graded in preparation for residential neighborhoods; by 1980 several other neighborhoods to the north and south of the project site are shown as graded with lots and the beginning of houses being constructed. By 1989, much of the project vicinity is shown as residential development.

1.3 APPLICABLE REGULATIONS

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Resource importance is assigned to those cultural resources that possess exceptional value or quality illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, and culture.

A number of criteria are used in demonstrating resource importance. Specifically, criteria outlined in CEQA, the County of San Diego Resource Protection Ordinance (RPO), and the San Diego County Local Register provide the guidance for making such a determination. The following sections detail the criteria that a resource must meet in order to be determined important.

1.3.1 California Environmental Quality Act

CEQA, Public Resources Code (PRC) 21084.1, and California Code of Regulations (CCR) Title 14 Section 15064 discuss significant cultural resources as "historical resources," which are defined as:

- resource(s) listed or determined eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (CRHR) (14 CCR Section 15064.5[a][1])

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

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

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

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

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

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

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

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

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

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

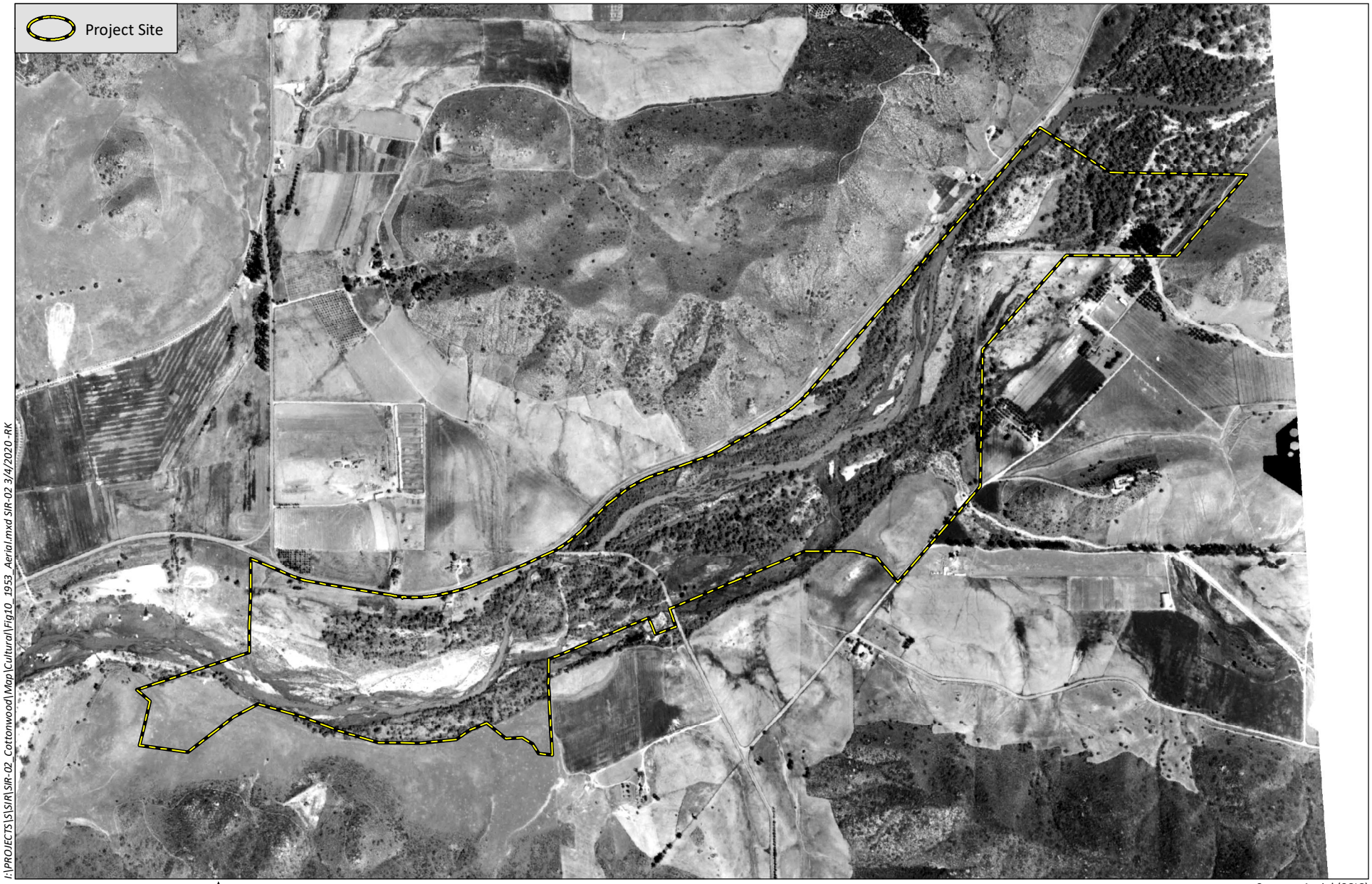
I:\PROJECTS\S\SIR\SIR-02_Cottonwood\Map\Cultural\Fig9_1928_Aerial.mxd SIR-02 3/4/2020 -RK

Source: Aerial (SCIC)

HELIX Environmental Planning

1928 Aerial Photograph

Figure 9



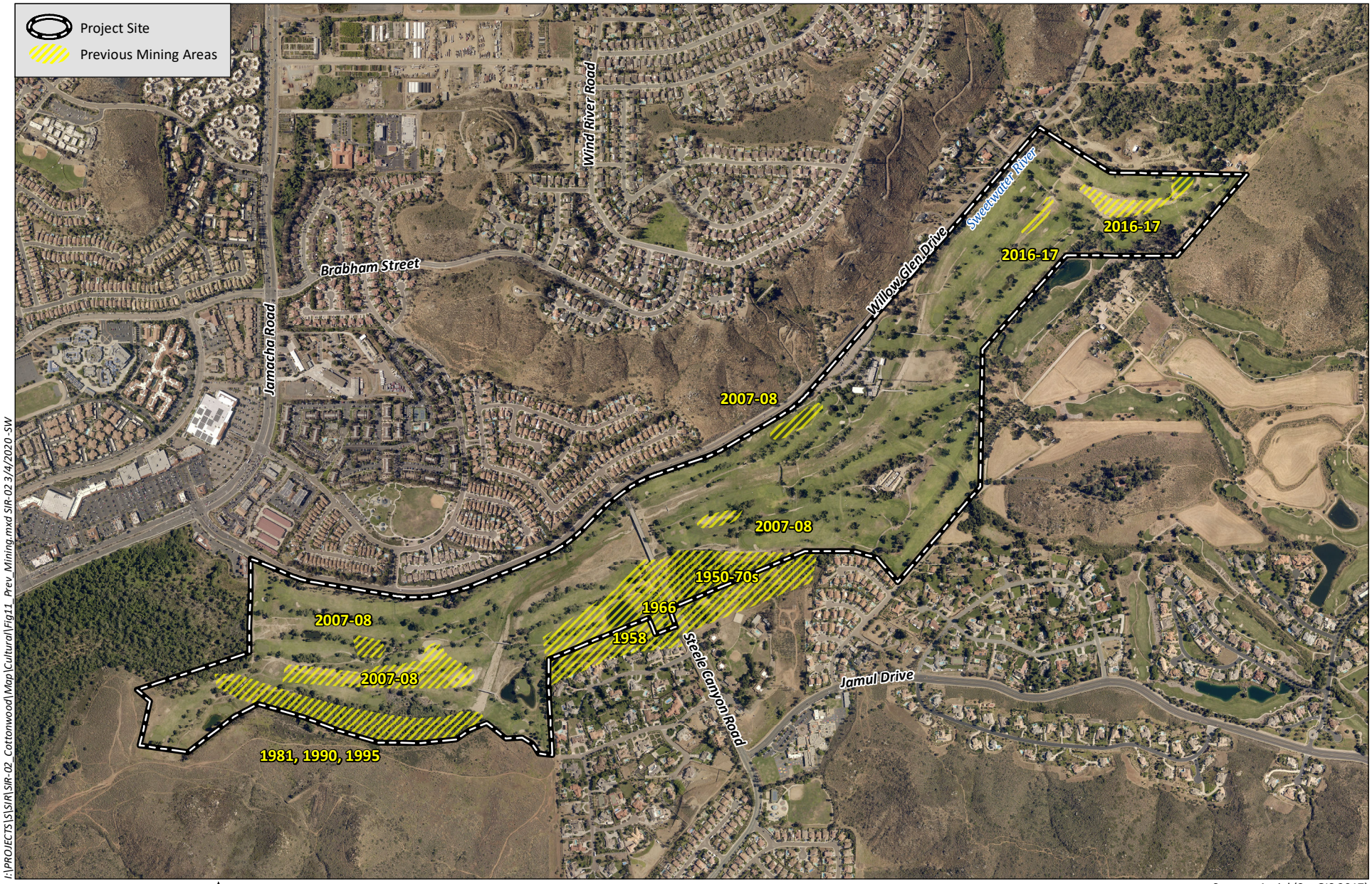
I:\PROJECTS\S\SIR\SIR-02_Cottonwood\Map\Cultural\Fig10_1953_Aerial.mxd SIR-02 3/4/2020 -RK

Source: Aerial (SCIC)

HELIX Environmental Planning

1953 Aerial Photograph

Figure 10



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Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Areas Previously Mined for Sand Extraction

Figure 11

(1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

(2) The significance of an historical resource is materially impaired when a project:

(a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(c) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Section 15064.5 8 of CEQA applies to effects on archaeological sites and contains additional provisions regarding archaeological sites. If an archaeological site does not meet the criteria defined in subsection (a) as a historical resource, but does meet the definition of a unique archaeological resource in Section 21083.2 of the PRC, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources. If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Section 15064.5 (d) & (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides the following:

When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code §5097.98. 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 Native American Heritage Commission.

1.3.2 San Diego County Local Register of Historical Resources (Local Register)

The County requires that resource importance be assessed not only at the state level as required by CEQA, but at the local level as well. If a resource meets any one of the following criteria as outlined in the Local Register, it will be considered an important resource.

1. Resources associated with events that have made a significant contribution to the broad patterns of California or San Diego County's history and cultural heritage;

2. Resources associated with the lives of persons important to the history of San Diego County or its communities;

3. Resources that embody the distinctive characteristics of a type, period, San Diego County region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Resources that have yielded, or may be likely to yield, information important in prehistory or history.

1.3.3 San Diego County Resource Protection Ordinance

The County of San Diego's RPO protects significant cultural resources. The RPO defines "Significant Prehistoric or Historic Sites" as follows:

Sites that provide information regarding important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, State, or Federal importance. Such locations shall include, but not be limited to:

1. Any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object either:

    a. Formally determined eligible or listed in the National Register of Historic Places by the keeper of the National Register; or

    b. To which the Historic Resource ("H" Designator) Special Area Regulations have been applied; or

2. One-of-a-kind, locally unique, or regionally unique cultural resources which contain a significant volume and range of data and materials, and

3. Any location of past or current sacred religious or ceremonial observances which is either:

    a. Protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures or

    b. Other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

The RPO does not allow non-exempt activities or uses damaging to significant prehistoric or historic lands on properties under County jurisdiction. The only exempt activity is scientific investigation. All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites. Non-compliance would result in a project that is inconsistent with County standards.

1.3.4 Native American Heritage Values

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

Potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties (TCP) in discussions of cultural resource management (CRM) performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.

The County of San Diego Guidelines identify that cultural resources can also include TCPs, such as gathering areas, landmarks, and ethnographic locations in addition to archaeological districts (County of San Diego 2007). These guidelines incorporate both State and Federal definitions of TCPs. Generally, a TCP may consist of a single site, or group of associated archaeological sites (district or traditional cultural landscape), or an area of cultural/ethnographic importance.

The Traditional Tribal Cultural Places Bill of 2004 requires local governments to consult with Native American representatives during the project planning process, specifically before adopting or amending a General Plan or a Specific Plan, or when designating land as open space for the purpose of protecting Native American cultural places. The intent of this legislation is to encourage consultation and assist in the preservation of "Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance" (County of San Diego 2007). It further allows for tribal cultural places to be included in open space planning. State Assembly Bill 52, in effect as of July 1, 2015, introduced the Tribal Cultural Resource (TCR) as a class of cultural resource and additional considerations relating to Native American consultation into CEQA. As a general concept, a TCR is similar to the federally-defined TCP, however, incorporates consideration of local and state significance and required mitigation under CEQA. A TCR may be considered significant if included in a local or state register of historical resources; or determined by the lead agency to be significant pursuant to criteria set forth in Public Resources Code (PRC) §5024.1; or is a geographically defined cultural landscape that meets one or more of these criteria; or is a historical resource described in PRC §21084.1, a unique archaeological resources described in PRC §21083.2, or is a non-unique archaeological resource if it conforms with the above criteria.

2.0 GUIDELINES FOR DETERMINING SIGNIFICANCE

For the purposes of this technical report, any of the following will be considered a potentially significant environmental impact to cultural resources:

1. The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner consistent with the Secretary of Interior Standards.

2. The project causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

3. The project disturbs any human remains, including those interred outside of formal cemeteries.

4. The project proposes activities or uses damaging to significant cultural resources as defined by the RPO and fails to preserve those resources.

5. The project proposes activities or uses that would impact tribal cultural resources as defined under PRC §21074.

The significance guidelines listed above have been selected for the following reasons:

Guidelines 1 and 2 are derived directly from CEQA. Sections 21083.2 of CEQA and 15064.5 of the State CEQA Guidelines recommend evaluating historical and archaeological resources to determine whether a proposed action would have a significant effect on unique historical or archaeological resources. Guideline 3 is included because human remains must be treated with dignity and respect and CEQA requires consultation with the "Most Likely Descendant" as identified by the NAHC for any project in which human remains have been identified.

Guideline 4 was selected because the RPO requires that cultural resources be considered when assessing environmental impacts. Any project that would have an adverse impact (direct, indirect, and cumulative) on significant cultural resources as defined by this Guideline would be considered a significant impact. The RPO does not allow non-exempt activities or uses damaging to significant prehistoric lands on properties under County jurisdiction. The only exempt activity is scientific investigation.

Guideline 5 was selected because tribal cultural resources are of cultural value to Native American tribes. Any project that would have an adverse impact (direct, indirect, and cumulative) on tribal cultural resources as defined by PRC §21074 would be considered a significant impact.

All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites, as well as requirements listed in the Zoning Ordinance, General Plan, and the Grading, Clearing, and Watercourses Ordinance (§87.429). Non-compliance would result in a project that is inconsistent with County standards.

3.0 ANALYSIS OF PROJECT EFFECTS

3.1 METHODS

3.1.1 Survey Methods

The study area was surveyed for cultural resources on August 16 and 17, 2018 by HELIX archaeological field director Julie Roy with the assistance of HELIX archaeologists Amber Parron and Sheila Adolph, and Kumeyaay Native American monitor Justin Linton of Red Tail Environmental. The study area for the project includes both 18-hole golf courses within the project site, consisting of the active Ivanhoe course within the eastern portion of the project site, and the inactive Lakes course within the western portion. Golf play and maintenance of landscaped turf within the Lakes course was discontinued in 2017.

The study area was surveyed in parallel transects spaced approximately 15 meters apart within the inactive Lakes golf course. Within the active Ivanhoe golf course, the survey included a mix of transects spaced approximately 15 meters apart and spot survey focused on areas of open ground.

The project site has been subjected to past human disturbances and habitat modification associated with mineral extraction activities and development of the golf course. Sand mining activities within the site began in the early 1950s to the south of Sweetwater River and have continued throughout the years (Figure 11). The most recent mining activities occurred in the western and southwestern portions of the site between 2007 and 2009, and in the extreme eastern portion of the site in 2016.

Vegetation within the project site reflects the site's disturbed and developed nature (HELIX 2019). The currently inactive Lakes course is characterized by ruderal vegetation, disturbed habitat, and a mixture of native and non-native planted trees. The active Ivanhoe course is characterized by landscaped turf grass, native and non-native planted trees, cart paths, parking lot, clubhouse, and other maintenance facilities. Vegetation within the Sweetwater River channel has been heavily modified as part of golf course development and is currently dominated by Bermuda grass (*Cynodon dactylon*) or bare ground (HELIX 2019).

3.1.2 Test Methods

During the August 2018 survey, two shell and lithic scatters, P-37-038837 (CA-SDI-22864) and P-37-038838 (CA-SDI-22865), were identified within the active Ivanhoe course. These two artifact scatters and previously recorded site CA-SDI-17943 were subjected to a testing program, conducted on November 20 and 21, 2018. Testing was conducted by Mary Villalobos and Kent Smolik of HELIX, and Kumeyaay Native American monitors Gabe Kitchen and Justin Linton of Red Tail Environmental.

A total of 12 STPs were excavated; the circular STPs measured 30 cm in diameter and were excavated to a minimum depth of 30 cm. The soil from the STPs was screened through 1/8-inch mesh screens. Standard STP forms were completed noting soil conditions, artifact and ecofact recovery, and other relevant information.

Five STPs were excavated at the location of CA-SDI-22864, three STPs were excavated at CA-SDI-22865, and four STPs were excavated at CA-SDI-17943. After the completion of the excavations, artifacts and ecofacts on the surface were collected; however, many of the artifacts and ecofacts identified during the August 2018 survey could not be reidentified during the November 2018 field effort due to golf course

maintenance activities and seasonal conditions; as such a complete surface collection was not completed.

3.1.3 Laboratory and Cataloging Procedures

Recovered artifacts and ecofacts were brought to the HELIX archaeological laboratory for cleaning, sorting, and inventory. This entailed identification of material and species, counts, weights, and descriptions of the artifacts and ecofacts recovered during the testing program.

3.1.4 Artifact Conveyance

Recovered artifacts and ecofacts from the testing program will either be repatriated to a Kumeyaay tribe or curated at an appropriate curation facility within San Diego County, such as the San Diego Archaeological Center.

3.2 NATIVE AMERICAN PARTICIPATION/CONSULTATION

The NAHC was contacted on August 3, 2018 for a Sacred Lands File search and a list of Native American contacts. A response dated August 6, 2018 was received from the NAHC indicating that Native American cultural sites are present within the project area. The commission recommended contacting the Viejas Band of Kumeyaay Indians (Viejas), Kumeyaay Cultural Repatriation Committee (KCRC), Ewiiaapaayp Band of Kumeyaay Indians (Ewiiaapaayp), Barona Band of Mission Indians (Barona), and Kwaaymii Laguna Band of Mission Indians (Kwaaymii). Phone calls were made to these entities in November 2018. Kristie Orozco, representing the KCRC, requested contact information of the applicant and lead agency (County), and requested to receive copies of the site forms of the cultural resources identified in the project area. Orozco has also requested a site visit to the project site. Clint Linton, also representing the KCRC, indicated that no resource-specific issues are known for the project site. However, other local sand mining operations have caused concern for the local tribes based upon the nature of the work (large equipment that may remove cultural material without it being known, and safety concerns for the monitors). Linton recommended tribal and archaeological monitors be present during construction activities. Carmen Lucas, representing Kwaaymii, indicated that she was not familiar with the project area; she is concerned about a sand mining project but does not think it is this project specifically. She stated that if there is a need for an archaeologist, there is a need for Native American monitors. Native American correspondence is included as Confidential Appendix C.

Individuals and groups identified by the NAHC were contacted by letter regarding the project on December 3, 2018 (Confidential Appendix C). Four responses have been received to date.

In an email received December 7, 2018 the Jamul Indian Village of California (Jamul) responded that the project site is in a highly sensitive area with cultural resources. Jamul will be prepared to respond to County consultation. Viejas responded in a letter dated December 10, 2018 that the project site has cultural significance or ties to Viejas. They recommend that a Kumeyaay Cultural Monitor be on site for ground disturbing activities to inform them of any new developments such as inadvertent discovery of cultural artifacts, cremations sites, or human remains. In an email received December 7, 2018 the Agua Caliente Band of Cahuilla Indians responded that the project is not located within the Tribe's Traditional Use Area; as such, they defer to the other tribes in the area. The Rincon Band of Luiseño Indians responded on December 27, 2018 that the project location is not within the Luiseño Aboriginal

Territory; they recommend that a tribe within the project area be contacted to receive direction on how to handle any inadvertent findings according to their customs and traditions.

County staff contacted the NAHC for a Sacred Lands File search and list of tribal contacts on January 7, 2019. Below is a discussion of the consultations that have taken place and are ongoing.

- On January 8, 2019, the County initiated AB 52 consultation with seven tribes (Barona, Campo Kumeyaay Nation [Campo], Jamul, Kwaaymii, Iipay Nation of Santa Ysabel [Santa Ysabel], Sycuan Band of the Kumeyaay Nation [Sycuan], Viejas). Barona, Campo, Jamul, Santa Ysabel, Sycuan and Viejas requested AB 52 consultation.

- Five tribal groups/organizations (Ewiiaapaayp, Inaja Band of Mission Indians, La Posta Band of Diegueño Mission Indians, San Pasqual Band of Diegueño Mission Indians, KCRC) were contacted on February 19, 2019 for Sacred Lands consultation. No responses were received from these groups.

- On February 19, 2019, AB 52 consultation was initiated with the Manzanita Band of Kumeyaay Nation and no response was received.

Tribal consultation under AB 52 has been ongoing and has occurred since January 2019 with all the tribes who have requested consultation. Field trips with consulting tribes to the project site were conducted on April 11, 2019 and April 16, 2019. The field trips included an overview of the project site and visiting each of the cultural sites. Concerns raised included the possibility for resources to be present within tree roots, fill soils and native soils. Correspondence between County staff, the NAHC, and tribal contacts is included in Confidential Appendix C. Consultation will continue throughout the processing of this project.

A Kumeyaay Native American monitor from Red Tail Environmental participated in the field survey in August 2018 and during the testing program conducted in November 2018.

Although the Sacred Lands File search indicated that Native American cultural sites are present in the project area, no specific information has been obtained through Native American outreach, consultation, or in communication with the Native American monitors during fieldwork that the archaeological sites within the project area are culturally or spiritually significant. To date, no TCRs have been identified that currently serve religious or other community practices are known to exist within the project area.

3.3 RESULTS

Five archaeological resources were identified during the record search to be within or adjacent to the project area (Figure 12, *Archaeological Resources Within or Adjacent to the Project Area*, Confidential Appendix B). Four previously recorded archaeological site locations within or adjacent to the study area were examined during the August 2018 survey. One site, CA-SDI-5468, was determined through desktop research to be inaccurately mapped within the project area; the site is located adjacent to, but outside of, the project area.

One of the previously recorded archaeological sites within the project area, CA-SDI-17943, a prehistoric lithic scatter, was reidentified during the 2018 survey. Of the remaining three previously recorded

resources, prehistoric site CA-SDI-4765 was found to be adjacent, but not within the project area; the portion of historic site, CA-SDI-14767, that once crossed the project area has been destroyed; and prehistoric isolate P-37-027625 could not be reidentified.

In addition, two newly identified shell and lithic scatters, CA-SDI-22864 and CA-SDI-22865, were observed within the active Ivanhoe course on the eastern portion of the project site. The three prehistoric archaeological sites within the project area (CA-SDI-17943, CA-SDI-22864, and CA-SDI-22865) were included in a testing program, conducted in November 2018.

The archaeological resources have been recorded or updated on appropriate Department of Parks and Recreation (DPR) 523 forms. All completed DPR site forms were submitted to the SCIC and are included as Confidential Appendix D. Photographs of the site locations and artifacts are included as Confidential Appendix E.

3.3.1 Prehistoric Archaeological Resources

3.3.1.1 CA-SDI-4765 (P-37-004765)

Site CA-SDI-4765 consists of a lithic tool production/maintenance location possibly utilized in the Archaic Period and early Late Prehistoric period. Originally recorded in 1972, the site was revisited in 1979, tested in 1981, and subjected to a data recovery program in 1992 (Schaefer et al. 1992). The site was found to contain two concentration areas located at the northern and eastern areas of the knoll upon which it is located. This knoll lies to the west, adjacent to the western boundary of the project site.

During the August 2018 survey, a utilized core and two flakes of fine-grained metavolcanic material were observed on the east-facing slope within the project site. The area was intensively surveyed a second time during the testing phase of the project in November 2018; no additional artifacts were observed. In consultation with the Native American monitor, it was determined that the material had been redistributed downslope from the main concentration areas at the top of the knoll and that the site did not extend into the project area. This observation corresponds to the information and maps provided in the 1992 data recovery report (Schaefer et al. 1992).

The 1992 data recovery report for site CA-SDI-4765 was a preliminary report, prepared for the issuance of grading permits (Schaefer et al. 1992). It is not known if a final report was prepared (one is not on file at the SCIC), or the curation status of the artifacts recovered from the data recovery program. The data recovery program was undertaken for the development of Rancho San Diego – Jamacha Village West; however, the area remained undeveloped and ultimately came under the management of the San Diego National Wildlife Refuge (SDNWR).

3.3.1.2 CA-SDI-17943 (P-37-027624)

Site CA-SDI-17943 was initially recorded in 2005 during a survey of various locations within the Cottonwood Golf Course (Pigniolo et al. 2005). The site was documented as four flakes consisting of two bifacial thinning flakes and two pieces of angular waste in an approximately 20-meter by 10-meter area adjacent to the golf course access road in the northern portion of the Lakes course. Although the site was not evaluated because it could be avoided by the proposed project impacts, it was noted that "site integrity is poor due to the proximity of the access road and the impact of over forty years of golf course activity" (Pigniolo et al. 2005: 19). However, although the artifacts were in a mixed context of road fill, it was also noted that intact upland soils were observed in the site vicinity. Based on a review of aerial

photographs the site location was on the northern bank of the Sweetwater River; it appears that this area of the project site may not have undergone as extensive grading and filling as most of the project site did for the construction of the golf course (NETR Online 2019). On the 1928 aerial, the site location is within an orchard (Figure 13, *Archaeological Resources on 1928 and 1953 Aerial Photographs*, Confidential Appendix B).

During the August 2018 survey, four flakes were identified within a 30-meter by 10-meter area located approximately 30 to 40 meters to the west of the location where site CA-SDI-17943 is mapped at the SCIC. It is not known if these flakes are the same four flakes identified in 2005, but upon an examination of the descriptive locational information provided in the site form, it appears likely to be the same location as where the flakes were identified in 2005.

Site CA-SDI-17943 was included in the November 2018 testing program. Four STPs were placed in an approximate rectangle pattern, 10 to 15 meters apart, within the area where the flakes had been observed on the August 2018 survey. STPs #1 and #3 consisted of heavily compacted silty sand mixed with decomposing granite and were terminated at 30 and 40 cm, respectively, due to solid decomposing granite. STP #2 consisted of silty sand with some decomposing granite, and heavy compaction below 20 cm. The STP was terminated at 40 cm due to sterility. STP #4 consisted of moderately compacted, medium brown sandy silt mixed with decomposing granite between 0 and 30 cm. Below 30 cm, the soil consisted of semi-compacted, dark brown silty loam with little to no gravel; the STP reached a depth of 60 cm.

One debitage flake of metavolcanic material was found within the 10-20 cm level of STP #3; no other subsurface cultural material was recovered from the STPs. Only two of the four surface flakes identified during the August 2018 survey could be reidentified during the November 2018 testing effort; the two flakes and one fragment of *Chione* were collected and are included in Table 3, *Artifact Recovery at Site CA-SDI-17943*.

Table 3
ARTIFACT RECOVERY AT SITE CA-SDI-17943

Artifact Number	Location	Class	Item	Material	Count	Weight/ Measurements
1	Surface	Flaked stone	Debitage	Fine-grained metavolcanics	2	Flake 1: 1.8 mm thickness 15.5 mm width 23.4 mm length Flake 2: 1.3 mm thickness 10.5 mm width 15.6 mm length
2	STP #1, Surface	Shell	Unmodified/bulk	*Chione*	1	0.5 g
3	STP #3, 10-20 cm	Flaked stone	Debitage	Fine-grained metavolcanics	1	0.6 mm thickness 7.2 mm width 10.5 mm length

3.3.1.3 CA-SDI-22864 (P-37-038837)

This resource was identified during the August 2018 survey within the eastern, active Ivanhoe Course (Figure 12). The site was observed as a sparse lithic and shell scatter within a disturbed area with little grass present. The scatter consisted of approximately five flakes of metavolcanic material and numerous marine shell fragments including *Chione, Argopecten, Ostrea* (Oyster), *Protothaca*, and possibly *Tivela* (Pismo clam). In addition, two fragments of historic glass were observed, one being sun-colored amethyst. Some of the ecofacts and artifacts were observed within back-dirt piles from rodent activity, suggesting a subsurface deposit.

During the testing program in November 2018, a total of five STPs were excavated at site CA-SDI-22864, four surrounding the site datum established during the August 2018 survey and one approximately 25 meters to the northwest, where additional cultural material had been identified.

STPs #1 and #2, situated within a pathway mostly devoid of grass, were both extremely compact and contained sand, gravel, and cobbles. STP #1 was excavated to a depth of 55 cm, and STP #2 was excavated to 40 cm. STPs # 3 and #4 were placed on either side of the pathway and consisted of sandy loam between 0 and 20 cm, then turned to loose sand to termination depth. STP #3 was excavated to a depth of 80 cm, and STP #4 was excavated to a depth of 100 cm. STP # 5 was excavated to a depth of 80 cm; the soil consisted of dark brown sandy loam from 0 to 10 cm and changed to brown loose, coarse sand below that.

The two STPs within the pathway appear to be within an area of fill. Sand extraction occurred between 2016 and 2017 in the area immediately to the southeast of the site; it may be that the pathway was graded and replaced with fill material as well. Outside of the pathway, the subsurface soils appeared to be from alluvial deposits. It is unclear how much grading occurred in this area during the construction of the golf course in the 1960s; on the 1928 and 1953 aerials, the resource location appears to be within a vegetated area just outside of the river channel (Figure 13).

The only subsurface materials recovered at this site were a historic, or possibly modern, brick fragment and shell fragments within STP #1, which was located within the pathway and determined to be disturbed (Table 4, *Artifact Recovery at Site CA-SDI-22864*). One debitage flake of metavolcanic material was recovered from the surface, along with several shell fragments.

Table 4
ARTIFACT RECOVERY AT SITE CA-SDI-22864

Artifact Number	Location	Class	Item	Material	Count	Weight/ Measurements
1	Surface	Shell	Unmodified/bulk	*Argopecten*, *Chione*, Unidentified	5	3.6 g
2	Surface	Flaked stone	Debitage	Meta-volcanic Fine grained with inclusions	1	1.7 mm thickness 8.8 mm width 14.4 mm length
3	STP #1, 0-10 cm	Historic/ modern	Brick fragment	Red clay	1	10.9 mm thickness 12.3 mm width 25.7 mm length
4	STP #1, 30-40 cm	Shell	Unmodified/bulk	*Chione*	3	4.1 g
5	STP #1, 40-50 cm	Shell	Unmodified/bulk	Unidentified	4	0.7 g

3.3.1.4 CA-SDI-22865 (P-37-038838)

This resource was identified during the August 2018 survey within the eastern, active Ivanhoe Course (Figure 13). The site was observed as a sparse lithic and shell scatter near dirt pathways in an area of sparse grass. The scatter consisted of approximately four flakes and numerous marine shell fragments including *Chione*, *Argopecten*, *Protothaca* and possibly *Tivela* (Pismo clam). Some of the ecofacts and artifacts were observed within back-dirt piles from rodent activity, suggesting a subsurface deposit.

Three STPs were excavated at site CA-SDI-22865 during the testing program in November 2018. The STPs were placed around the site datum established during the August 2018 survey.

STPs #1 and #2 consisted of heavily compacted soil and reached depths of 35 cm and 65 cm, respectively. The upper 0-10 cm of the STPs consisted of loose sand, and below this was heavily compacted reddish sandy clay with bits of caliche throughout. STP #3 consisted of moderately compacted dark brown sandy silt from 0-10 cm, then to heavily compacted medium brown silty sand; the STP reached a depth of 80 cm.

Shell fragments were the only subsurface material recovered at this site (Table 5, *Artifact Recovery at Site CA-SDI-22865*). Two flakes were recovered from the surface, along with several shell fragments.

Table 5
ARTIFACT RECOVERY AT SITE CA-SDI-22865

Artifact Number	Location	Class	Item	Material	Count	Weight/ Measurements
1	Surface	Shell	Unmodified/Bulk	*Protothaca*, *Chione*, *Ostrea*, unidentified	18	48.6 g
2	Surface	Flaked stone	Debitage	Quartzite and fine-grained metavolcanic	2	Quartzite: 4.5mm thickness 17.0mm width 21.8mm length Metavolcanic: 1.5mm thickness 6.9mm width 13.2mm length
3	STP #1, 0-35 cm	Shell	Unmodified/bulk	*Protothaca*, unidentified	2	1.3 g
4	STP #2, 0-10cm	Shell	Unmodified/bulk	*Ostrea*, *Argopecten*, unidentified	11	1.1 g
5	STP #2, 10-20 cm	Shell	Unmodified/bulk	*Protothaca*, unidentified	2	0.7 g
6	STP #3, 20-30 cm	Shell	Unmodified/bulk	*Ostrea*	1	0.0 g

3.3.1.5 Discussion and Evaluation

The project area was likely used prehistorically as a travel route along the Sweetwater River corridor and as a resource processing and gathering area. Larger habitation/village areas have been documented

approximately a half-mile downriver and two miles upriver from the project site. In addition, numerous bedrock milling features, campsites, and habitation areas have been recorded within the project vicinity, primarily within the hills surrounding the project site. It is likely that prior to the development of the golf course, the banks of the Sweetwater River within the project area contained a wide-spread scatter of artifacts, as documented by the archaeological surveys conducted in the areas surrounding the project site.

The three prehistoric archaeological resources within the project area are light density lithic and shell scatters with no evidence of intact subsurface deposits. The resources do not contain milling features or temporally diagnostic artifacts, such as projectile points or ceramics, making the placement of the sites in time or in association with other resources in the region challenging. Furthermore, the sites contain poor integrity, due to the construction and ongoing maintenance of the golf course. Based on information provided by the project proponent, sites CA-SDI-22864 and CA-SDI-22865 may be a result of imported soils. The area where site CA-SDI-22864 was identified is where fill dirt was brought in to backfill a pit that had been previously excavated next to the 11th fairway on the Ivanhoe course (Dennis Fransway, personal communication 2019). The fill was from the Sharp Chula Vista Hospital expansion construction in 2017. The area where site CA-SDI-22865 was observed was also an area that was excavated, and possibly filled, for a pit that was constructed in late 2008 between the 15th and 16th fairways.

As such, sites CA-SDI-17943, CA-SDI-22864, and CA-SDI-22865 are recommended as not eligible for listing on the CRHR or the Local Register, not eligible for protection under RPO guidelines, and as not significant under CEQA. The research potential of the sites has been fulfilled through documentation and the evaluation efforts of the current study.

3.3.2 Historic Sites

3.3.2.1 CA-SDI-14767 (P-37-016257)

This site is a water pump station with an associated outbuilding, tank, and pipe/flume system recorded by County of San Diego Department of Public Works staff in 1997. It is unclear when the facility was constructed; the site form notes the age of the historic structures as being from the turn of the twentieth century. It may be possible that the California Water and Telephone Company constructed the facility during their ownership of the lands in Jamacha Valley in the early 1900s.

Site CA-SDI-14767 is mapped primarily outside of the southwest portion of the project area. The two buildings, a stone and cement mortar structure with two rooms and a small stone building, are still present and are located approximately 300 feet to the northwest of the project boundary, within lands under the management of the SDNWR. The site form notes that the flume system extended east from the facility towards the project site for approximately 400 feet before being lost in a disturbed area of the knoll (Hanna et al. 1997). The recorders noted that the eastern end of the flume system, which they noted likely extended to an earthen dam located 2,000 feet to the east, was obliterated by grading.

During the August 2018 survey for the project site, one possible element of the resource, a short section of cast iron pipeline, was observed adjacent to, but outside of, the project site. On the 1928 aerial, what is presumably the flume can be seen crossing through the very southwestern portion of the project site (Figure 9). It continues heading in an easterly direction along the base of the hills to the south of the project, but the destination of the flume is not evident – the scar observed on the aerial disappears at a

distance of approximately 0.5 mile from the facility. The flume system does not appear to head southeast towards the earthen dam as others have hypothesized (Hanna et al. 1997; Schaefer et al. 1992); it continues in a generally easterly direction away from the dam, which is situated along the hillside south of the project site. Additionally, the flume system appears to pre-date the earthen dam, which can be observed on the 1953 aerial photograph but is not observed on the 1928 aerial photograph.

No traces of the flume or any pipe were observed within the project site during the August 2018 survey, but thick vegetation was observed in this portion of the project area. While it is possible that portions of the pipeline may be buried within the project area, it is likely that grading activities throughout the last 90 years have removed or otherwise destroyed the flume system. By 1953, no trace of the flume system can be observed on aerial photographs, which suggests that it had been destroyed prior to the construction of the golf course in the 1960s.

3.3.3 Isolated Artifacts

P-37-027625

This resource is an isolate consisting of two flakes identified in 2005 along the eastern margin of the golf course (Pigniolo et al. 2005). Pigniolo et al. (2005) suggests that the isolated flakes may be associated with site CA-SDI-5468, as they note the site being only 50 meters from the isolated artifacts. However, the residential house that was used as a reference for this measurement was constructed after the 1978 survey that documented CA-SDI-5468 (Schiowitz 1978). Based on a review of historic aerials and a photograph provided in the 1978 survey report, CA-SDI-5468 has been determined to be over 100 meters from the isolate. However, as noted by Schiowitz (1978), additional isolated lithic artifacts were encountered within the 140-acres of plowed fields (in 1978) situated to the east of the project site, suggesting a low-density scatter of lithic material was once present throughout the valley leading eastward from the Sweetwater River floodplain.

During the 2018 survey, the flakes were not reidentified. On the 1928 aerial, the location of the flakes appears to be situated on southern bank of the Sweetwater River, outside of the active floodplain and south of the Mexican Canyon drainage (Figure 13).

4.0 INTERPRETATION OF RESOURCE IMPORTANCE AND IMPACT IDENTIFICATION

4.1 RESOURCE IMPORTANCE

Five archaeological resources have been recorded within the project area (Table 6, *Archaeological Resources Within the Project Area*). One additional archaeological resource was recorded at the SCIC as potentially extending into the project site; however, it was determined that resource is adjacent, and outside of, the project area. The County's Guidelines for Determining Significance indicate that any site that yields information or has the potential to yield information is considered a significant ("important") site, although the resource may not meet the significance criteria of CEQA or the County's RPO.

Table 6
ARCHAEOLOGICAL RESOURCES WITHIN THE PROJECT AREA

Primary Number (P-37#)	Trinomial Number (CA-SDI-#)	Site Description	Tested?	Significance Evaluation
004765	4765	Lithic tool production/ maintenance location	No	Previously evaluated as significant and subjected to a data recovery program; determined to be outside of the project area
016257	14767	Water pump station with an associated outbuilding, tank, and pipe/flume system	No	Portion of site within project area appears to have been destroyed
027624	17943	Lithic and shell scatter	Yes	Not significant
038837	22864	Lithic and shell scatter	Yes	Not significant
038838	22865	Lithic and shell scatter	Yes	Not significant
027625	--	Two flakes	No	Not significant

4.1.1 Prehistoric Archaeological and Native American Resources

Three of the archaeological sites, CA-SDI-17943, CA-SDI-22864, and CA-SDI-22865, have been tested to assess significance; all are recommended as not significant and not eligible for listing in the CRHR or Local Register under CEQA and County guidelines. All three of the sites are sparse lithic and shell scatters with limited material and situated in disturbed areas of the golf course. The three sites all have poor integrity, due to the construction and maintenance of the golf course over the last 50 years. Each of the sites had surface artifacts that could not be reidentified even three months after initial identification. It is also possible, especially in the case of CA-SDI-22864 and CA-SDI-22865, that the sites are present by secondary deposition from fill materials.

The isolate (P-37-027625) could not be reidentified within the project area; it is not a significant resource under CEQA and is not considered RPO-significant or to be an important resource under County Guidelines.

A data recovery program was conducted for site CA-SDI-4765 in 1992 (Schaefer et al. 1992) for the Rancho San Diego – Jamacha Village West project that proposed the development of approximately 274 acres into 303 residential lots. During the fieldwork efforts for the current study, it was determined that the site is immediately adjacent to, but outside of, the project site. The three artifacts found within the project area were determined to be present by secondary deposition from the top of the knoll and are not in situ. The 1992 report states, “upon acceptance of this report, grading permits may be issued for the portion of Jamacha Village West that includes CA-SDI-4765” (Schaefer et al. 1992: iv). However, this area has not yet been developed and remains as open space under the management of the SDNWR.

No information has been obtained through Native American consultation or communication with the Native American monitors during fieldwork that any of the evaluated archaeological sites within the project area are culturally or spiritually significant. No TCRs that currently serve religious or other community practices are known to exist within the project area. During the current archaeological evaluation, no artifacts or remains were identified or recovered that could be reasonably associated with such practices. All prehistoric artifactual material consisted of common flaked stone and ecofacts,

and those in very limited quantities. However, all areas of past cultural use are of cultural importance to the Native American community, even if they do not meet the significance criteria for archaeological resources. As indicated by the search of the Sacred Lands File by the NAHC, Native American cultural sites are present within the project area, and the project has been noted by Jamul to be within a culturally significant area.

4.1.2 Historic Resources

The portion of historic site, CA-SDI-14767, that once crossed the project area, a pipe/flume system, has been destroyed. It is unclear who constructed the water pump station but ranching and farming has occurred within the Jamacha Valley since the 1800s and the flume could be a remnant of those activities. In addition, in the early to mid-1900s, much of the project site and vicinity was owned by the California Water and Telephone Company, who may have also been responsible for the construction of the resource.

The majority of the site, including the two buildings comprising the water pump station, is situated outside of the project area within open space under the management of the SDNWR. CA-SDI-14767 has not been evaluated for significance under CEQA and RPO.

4.2 IMPACT IDENTIFICATION

As shown in Figure 13 the archaeological sites within the project area (CA-SDI-17943, CA-SDI-22864, CA-SDI-22865) are located within the areas proposed for mining and would be subject to direct impacts from project implementation.

Isolate P-37-027625 was documented outside of the area proposed for mining and within an area that would be retained in its existing condition. The area of the project site located downslope from CA-SDI-4765 is also within an area that would be retained in its existing condition. CA-SDI-14767, a pipe/flume system, no longer exists within the project area. As such, these three resources would not be impacted by the project.

The Sacred Lands File search conducted by the NAHC has indicated that Native American cultural sites are present within the project area, and the project has been noted by Jamul to be within a culturally significant area. Direct impacts associated with the project would result from mining and reclamation activities which could impact buried archaeological or tribal cultural resources within the alluvial soils of the Sweetwater floodplain.

5.0 MANAGEMENT CONSIDERATIONS – MITIGATION MEASURES AND DESIGN CONSIDERATIONS

5.1 UNMITIGATED IMPACTS

No unmitigated impacts to archeological resources are associated with the project. TCRs have not been identified during consultation or by the Native American monitors.

5.2 MITIGATED IMPACTS

Impacts to archaeological resources have been identified for the project. As addressed in the previous section, three prehistoric archaeological sites, CA-SDI-17943, CA-SDI-22864, CA-SDI-22865, would be subject to impacts from project implementation. These sites are not recommended as eligible for listing in the CRHR or Local Register and are not considered significant under County RPO or CEQA. However, all archaeological sites are considered important under County guidelines. Impacts to the archaeological resources has been reduced to a level below significant through testing, recording, and documentation undertaken as part of this current study.

5.2.1 Mitigation Measures and Design Considerations

The general area of the project is sensitive in terms of archaeological resources and is within a tribally culturally significant area; as such, the potential remains for subsurface cultural deposits that could not be seen during the survey. Based on this, a pre-survey and monitoring program is recommended for the project. As a result of Native American consultation, a Treatment and Preservation Agreement will be implemented. Monitoring recommendations are shown on Figure 14, *Areas Recommended for Monitoring*; however, specific areas where monitoring of earth-disturbing activities would occur will be determined during the preparation of the Treatment and Preservation Agreement.

The following mitigation measures and design considerations will serve to mitigate project impacts to below a level of significance.

Cultural Resources Treatment Agreement and Preservation Plan

- Enter into a Cultural Resources Treatment Agreement and Preservation Plan with the culturally affiliated tribe(s).

- A single Cultural Resources Treatment Agreement and Preservation Plan shall be developed between the applicant or their representative and the culturally-affiliated Kumeyaay Native American tribe(s) prior to the commencement of sand extraction operations, including the removal of any trees or vegetation. The Cultural Resources Treatment Agreement and Preservation Plan shall be reviewed and agreed to by the County prior to final signature and authorization. The Cultural Resources Treatment Agreement and Preservation Plan shall include but is not limited to the following:

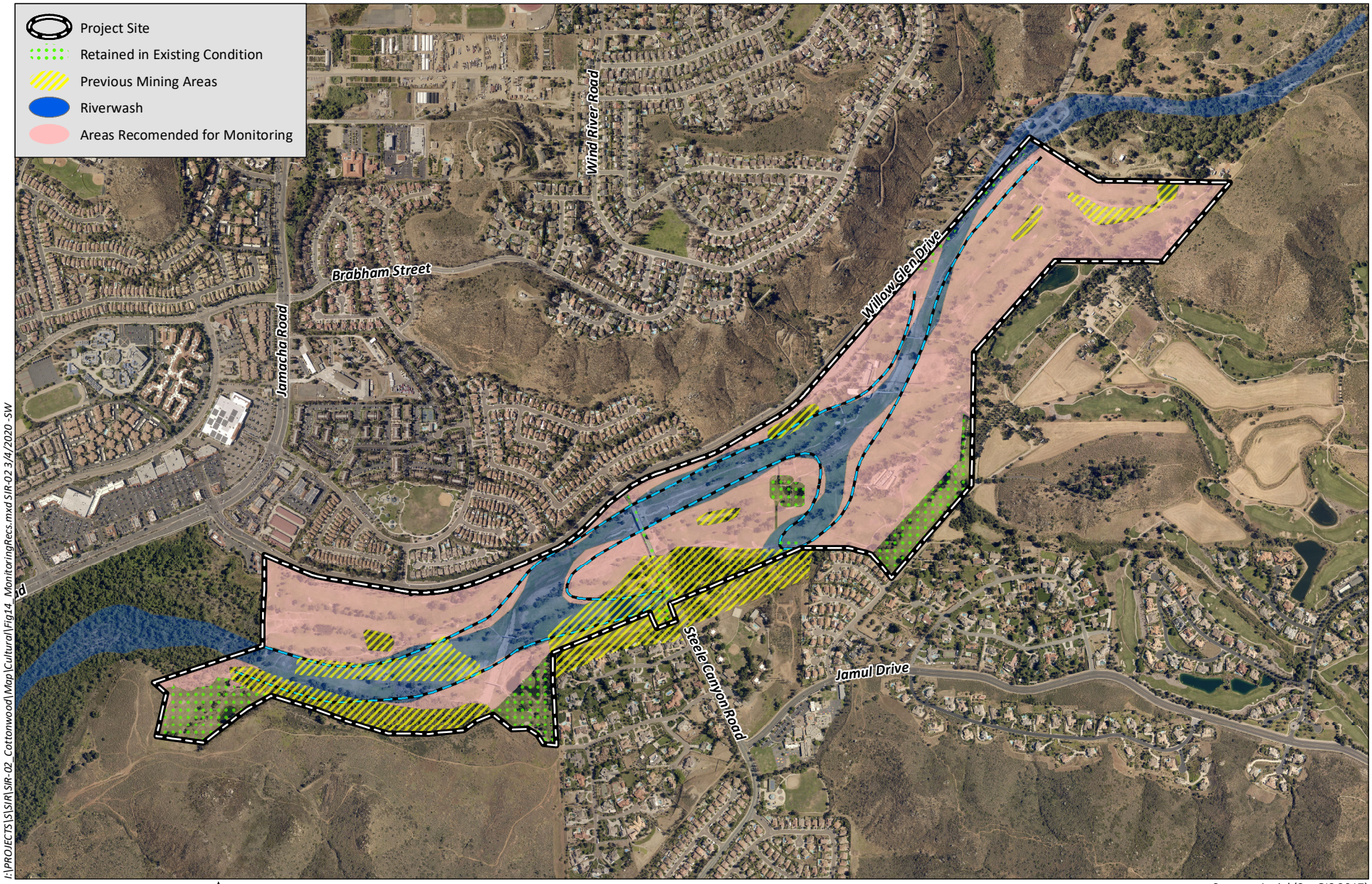
    - Parties entering into the agreement and contact information.

    - Responsibilities of the Property Owner or their representative, Principal Investigator, archaeological monitors, Kumeyaay Native American monitors, and consulting tribes.

    - Requirements of the Pre-Grade Survey and Data Recovery Program and Archaeological Monitoring Program including unanticipated discoveries.

    - Requirements of tree removal monitoring.

    - Identification of areas for archaeological and Native American monitoring during earth-disturbing activities related to sand extraction operations.



Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Areas Recommended for Monitoring

Figure 14

- Treatment of identified Native American cultural materials.
- Treatment of Native American human remains and associated grave goods.
- Confidentiality of cultural information including location and data.
- Negotiation of disagreements should they arise during the implementation of the Agreement and Preservation Plan.
- Regulations that apply to cultural resources that have been identified or may be identified during construction.

Pre-Grade Survey and Data Recovery Program

Prior to sand extraction operations, a Pre-Grade Survey and Data Recovery Program shall be implemented, consistent with the Cultural Resources Treatment Agreement and Preservation Plan and criteria outlined below.

- Pre-Construction

  A pre-grade survey shall be implemented due to the sensitivity of the area. The pre-grade and data recovery program shall include the following:

  - **Tree Removal:** Removal of trees shall be monitored by an Archaeological Monitor and Kumeyaay Native American Monitor for the presence of cultural resources.
  - **Pre-Grade:** Upon completion of grubbing and vegetation removal, and prior to sand extraction activities, a pre-grade survey shall be conducted in all areas identified for development. Development shall be defined as construction, extraction, or any other grading activity. The pre-grade survey shall include both an Archaeological Monitor and Kumeyaay Native American Monitor.
  - **Identified Resources.** In the event that cultural resources are identified:
    - Both the Project Archaeologist and Kumeyaay Native American monitor(s) have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.
    - The Project Archaeologist shall contact the County Archaeologist.
    - The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American monitor(s) shall determine the significance of discovered resources.
    - Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor(s) may collect the cultural material for transfer to a Tribal curation facility or repatriation program.

- If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Kumeyaay Native American monitor(s) and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources or Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).

- **Human Remains**

  - The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.

  - Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. Should the human remains need to be taken offsite for evaluation, they shall be accompanied by a Kumeyaay Native American monitor.

  - If the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the NAHC, shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.

  - The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.

  - Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.

- Vegetation Removal Completion

  - Upon completion of grubbing and vegetation removal for each phase, a monitoring report shall be prepared identifying whether resources were encountered during the removal of trees or Pre-Grade Survey. A copy of the monitoring report shall be provided to any culturally-affiliated tribe who requests a copy. If resources were encountered, the analysis shall be included in the final archaeological monitoring report and shall comply with all requirements of that condition.

Archaeological Monitoring Program

- **Pre-Construction**

  - Contract with a County approved archaeologist to perform archaeological monitoring and a potential data recovery program during earth-disturbing activities in areas identified in the Treatment and Preservation Agreement. The Project Archaeologist shall perform the monitoring duties before, during and after construction.

- Pre-construction meeting to be attended by the Project Archaeologist and Kumeyaay Native American monitor to explain the monitoring requirements.

- **Construction**

  - **Monitoring**: Both the Project Archaeologist and Kumeyaay Native American monitor are to be onsite during earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor.

  - **Identified Resources.** In the event that cultural resources are identified:

    - Both the Project Archaeologist and Kumeyaay Native American monitor have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.

    - The Project Archaeologist shall contact the County Archaeologist at the time of discovery.

    - The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American shall determine the significance of discovered resources.

    - Construction activities will be allowed to resume after the County Archaeologist has concurred with the significance evaluation.

    - Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor may collect the cultural material for transfer to a Tribal curation facility or repatriation program.

    - If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Kumeyaay Native American monitor and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources of Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).

  - **Human Remains**

    - The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.

    - Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. If the human remains are to be taken offsite for evaluation, they shall be accompanied by the Kumeyaay Native American monitor.

- If the remains are determined to be of Native American origin, the MLD, as identified by the NAHC, shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.

- The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.

- Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.

- **Rough Grading**

  - Monitoring Report. Upon completion of Rough Grading, a monitoring report shall be prepared identifying whether resources were encountered. A copy of the monitoring report shall be provided to the South Coastal Information Center and any culturally-affiliated tribe who requests a copy.

- **Final Grading**

  - Final Report. A final monitoring report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center, and any culturally-affiliated tribe who requests a copy.

  - Cultural Material Conveyance

    - The final monitoring report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or Tribal curation facility that meets federal standards per 36 Code of Federal Regulations (CFR) Part 79, or alternatively have been repatriated to a culturally affiliated tribe.

    - The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79.

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8.0 LIST OF MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Resource	Mitigation Measures	Design Considerations
CA-SDI-17943	None Required	None Required
CA-SDI-22864	None Required	None Required
CA-SDI-22865	None Required	None Required
General Property	The potential exists that unrecorded cultural resources could be encountered during earth disturbing activities. As a condition of approval, an Archaeological Monitoring Program shall be implemented.	Pre-Survey and Data Recovery Program Treatment and Preservation Plan Agreement