

APPENDIX C
Cultural Resources Inventory Report

**Cultural Resources Inventory Report
for the
Otay Ranch Village 4 Sectional Planning Area (SPA) Plan
Amendment Project, City of Chula Vista, California**

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Type of Study: Archaeological Inventory

USGS Quadrangle: Otay Mesa, CA 7.5', Unsectioned Area (Inferred PLSS Area T 18S, R 1W)

Area: 80 acres, **Key Words:** Positive Survey; Relocated (P-37-032399, P-37-032400 and P-37-032402); Not relocated (P-37-014531 and P-37-032400). P-37-032400: City of Chula Vista.

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MANAGEMENT SUMMARY

This report presents the results of Dudek's cultural resources inventory for the Otay Ranch Village 4 Sectional Planning Area (SPA) Plan Amendment Project (Project) in the City of Chula Vista (City), San Diego County, California. The City is the lead agency for compliance with the California Environmental Quality Act (CEQA) and local City regulations.

A records search was conducted at the South Coastal Information Center (SCIC) for the Project area and a surrounding one-mile radius on April 27, 2015. SCIC records indicate that three (3) prehistoric archaeological sites (P-37-032399, P-37-032402, and P-37-014531) and one isolate (P-37-014531) have been previously identified within the Project area of direct impact (ADI). Four (4) additional prehistoric archaeological sites have been recorded outside the ADI, within 50 meters. No built-environment or historical-era resources have been previously identified within, or surrounding, the ADI.

Dudek requested a California Native American Heritage Commission (NAHC) search of their Sacred Lands File (SLF) on June 6, 2015 for the proposed Project area. Following the NAHC response on July 16, 2015, letters were sent to the listed tribal representatives. The NAHC search failed to indicate the presence of Native American resources in the project ADI, and no responses by Native American representatives have been received to outreach attempts to date.

Dudek archaeologists, accompanied by a Native American monitor from Red Tail Monitoring, conducted an intensive pedestrian cultural resources survey of the Project ADI on May 11, 2015. As part of this survey, the cultural team revisited the recorded locations of all four previously identified archaeological resources within the ADI. Two of these resources were relocated (P-37-032399 and P-37-032402), two previously recorded resources were not relocated (P-37-014531 and P-37-032401), and one resource (P-37-032400), located just outside of the ADI, was observed to be located in its previously recorded location. All resources within the ADI were previously evaluated by Brian Smith & Associates (between 2008-2010) for California Register of Historical Resources (CRHR) listing. Based on review of Department of Parks and Recreation (DPR) site records, evaluation efforts included surface mapping and collection of artifacts, subsurface excavation, lab analysis, and cataloging of artifacts. From the maps, catalog tables, and testing information provided in these DPR site record forms, it appears that these sites lack the data potential needed to be eligible for CRHR listing. The SCIC has no evaluation report on file summarizing the efforts conducted by Brian Smith & Associates.

In consideration of SCIC and NAHC search information, tribal outreach, and intensive pedestrian survey results, the Project as currently designed does have the potential to impact cultural resources. It is recommended that impacts to cultural resource may be reduced to less than significant through the following mitigation: full-time monitoring by an archaeologist and

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Native American monitor of initial disturbances, installation of temporary fencing along Project limits within 100 feet of previously recorded sites located outside of the ADI for the duration of earth-moving activities, and preparation of a final cultural monitoring report following completion of construction. Prior to the initiation of construction, the cultural consultant should acquire all evaluation information and the draft evaluation report, if a report was prepared by Brian Smith & Associates. The final monitoring report should also incorporate a summary of the evaluation results and analyses previously conducted by Brian Smith & Associates for the archaeological sites recorded within the Project area, and should ensure that all archaeological material collected through Phases I-IV archaeological work is appropriately curated.

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1.0 INTRODUCTION

1.1 Project Location and Description

The Otay Ranch Village 4 Sectional Planning Area (SPA) Plan Amendment Project (Project) is located in the City of Chula Vista (City), San Diego County, California (Figure 1). The Project is located north of the active Vulcan Chula Vista Rock Quarry, east and south of Wolf Canyon, east of Otay Ranch Village 3 North, and west of Otay Ranch Village 8 West. The approximate 80-area of direct impact (ADI) is generally located on the northern flank of a ridgeline that slopes to the northwest toward Wolf Canyon which eventually flows south toward Otay River Drainage. This project falls in Sections 18 and 21, Township 18S, of the Otay Mesa, CA USGS map (Figure 2).

Otay Valley Quarry has planned the proposed project to create a complete village; one that is responsive to homebuyer preferences and is viable in light of current economic conditions, village ownership, infrastructure status, and government policy objectives/requirements. The plan features increased residential densities, diversity of residential product types, and resident amenities such as park and open space uses. The proposed project would provide opportunities for increased viability of commercial uses, transit ridership, village ‘walkability,’ and decreased automobile dependence. The project proposes 396 total units, of which 181 units would be single-family residential, and 215 units would be multi-family residential. The proposed project would conform to the existing GPD of: low-medium village density residential, medium density residential, medium-high density residential, open space, and open space preserve. Existing zoning for the project site is a Planned Community Zone (PC), and the project site is currently undeveloped.

1.2 Regulatory Context

The following section provides a summary of the applicable regulations, policies and guidelines relating to the proper management of cultural and paleontological resources.

1.2.1 Archaeological and Historical Resources Regulations

1.2.1.1 State Level Regulations

CEQA requires that all private and public activities not specifically exempted be evaluated for the potential to impact the environment, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. It defines historical resources as “any object, building, structure, site, area, or place, which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political,

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military, or cultural annals of California” (Division I, Public Resources Code, Section 5021.1(b)).

Lead agencies have a responsibility to evaluate historical resources against the California Register criteria prior to making a finding as to a proposed project’s impacts to historical resources. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired. While demolition and destruction are fairly obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of an historical resource that convey its historical significance (i.e., its character-defining features) can be considered to materially impair the resource’s significance.

The California Register is used in the consideration of historic resources relative to significance for purposes of CEQA. The California Register includes resources listed in, or formally determined eligible for some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory may be eligible for listing in the California Register and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

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

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

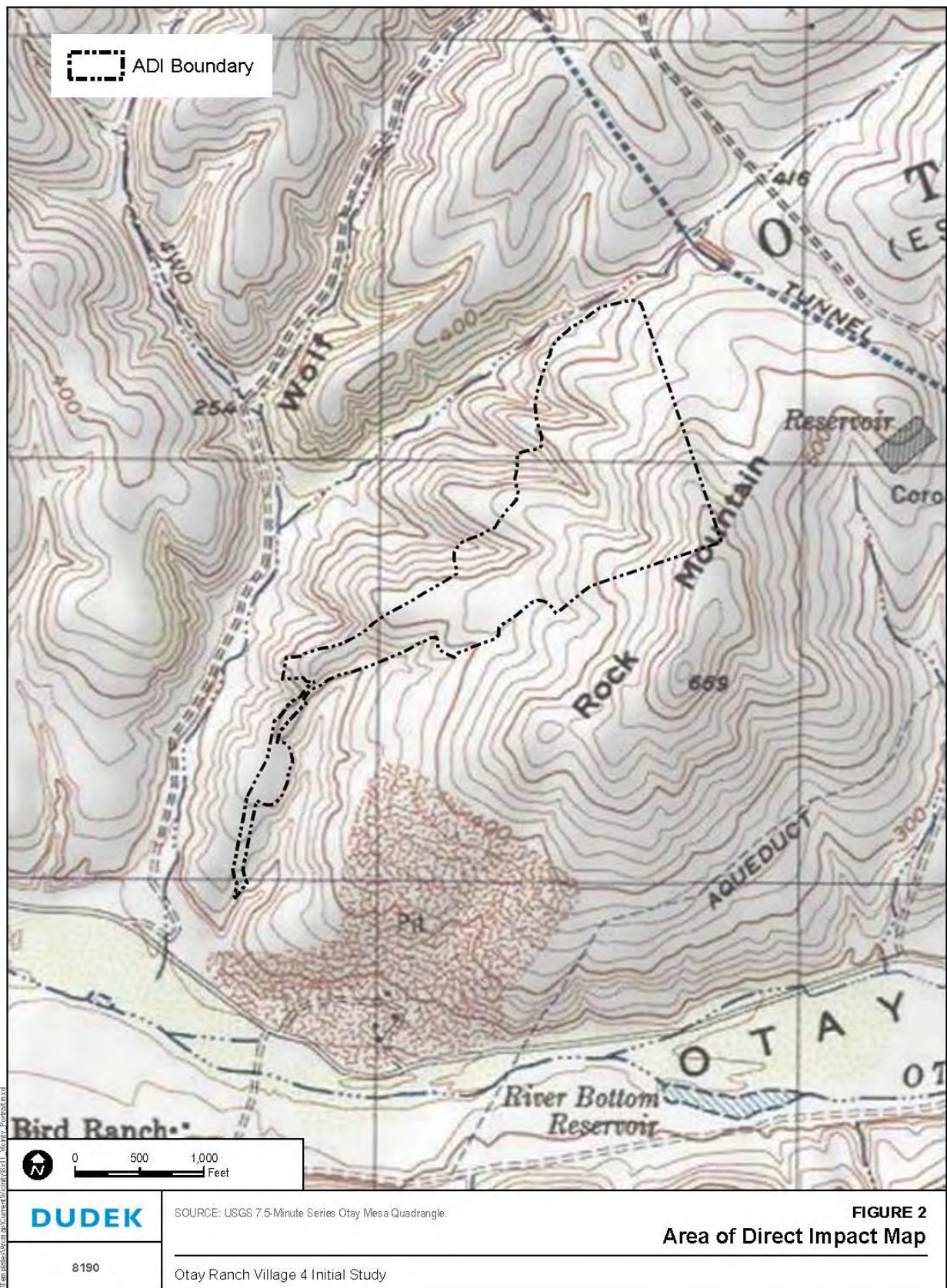
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A “unique” archaeological resource, as defined by the California Public Resources Code Section 21083.2, may be considered significant under CEQA and, if identified, defined mitigation appropriately implemented. As used in this section, "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In the event that Native American human remains or related cultural material are encountered, Section 15064.5(e) of the state CEQA Guidelines (as incorporated from Public Resources Code section 5097.98) and Health and Safety Code Section 7050.5 define the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended of the site or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that a county-approved coroner be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98 (California Code of Regulations, Title 14; Chapter 3; Article 5; Section 15064.5(e)).

1.2.1.2 City of Chula Vista Historic Preservation Ordinance

The City of Chula Vista Historic Preservation Ordinance (Title 21, Chula Vista Municipal Code §21.04.100) establishes general standards by which the Historical Significance of a Historical Resource is judged as Eligible for designation:

- A. A Resource is at least 45 years old; and
- B. A Resource possesses historical Integrity defined under Chula Vista Municipal Code §21.04.100 (discussed below) and the Resource is determined to have historical significance by meeting at least one of the following criteria:
 - 1) It is associated with an event that is important to prehistory or history on a

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national, state, regional, or local level.

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

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2.0 PROJECT CONTEXT

2.1 Cultural Context

Evidence for continuous human occupation in southern California spans the last 10,000 years. Various attempts to parse out variability in archaeological assemblages over this broad time frame have led to the development of several cultural chronologies; some of these are based on geologic time, most are based on temporal trends in archaeological assemblages, and others are interpretive reconstructions. Each of these reconstructions describes essentially similar trends in assemblage composition in more or less detail. This research employs a common set of generalized terms used to describe chronological trends in assemblage composition: Paleoindian (pre-5500 BC), Archaic (8000 BC–AD 500), Late Prehistoric (AD 500–1769), and Ethnohistoric (post-AD 1769).

2.1.1 Paleoindian (pre-5500 BC)

Evidence for Paleoindian occupation in Southern California is tenuous, especially considering the fact that the oldest dated archaeological assemblages look nothing like the Paleoindian artifacts from the Great Basin. One of the earliest dated archaeological assemblages in coastal Southern California (excluding the Channel Islands) derives from CA-SDI-4669/W-12, in La Jolla. A human burial from CA-SDI-4669 was radiocarbon dated to 9,590–9,920 years before present (95.4% probability; Hector 2006). The burial is part of a larger site complex that contained more than 29 human burials associated with an assemblage that fits the Archaic profile (i.e., large amounts of groundstone, battered cobbles, and expedient flake tools). Given the coastal bluff setting of this site, it is not surprising that its inhabitants made use of fish and shellfish taken through passive means (i.e., bone gorge and sinker fishing, shellfish gathering). There is no evidence at this site for economically significant exploitation of large game; rather, the assemblage is wholly consistent with what early researcher’s termed the “Millingstone Horizon” (Wallace 1955), or “La Jolla” culture (Warren 1964, 1968).

In the Jacumba region of Eastern San Diego, substation construction encountered more than a hundred roasting pits within loosely consolidated alluvium from the surface to more than 20 feet below the surface. Several such features had calibrated radiocarbon dates on charcoal that were older than 6,000 BC; one of these dated as old as 7,590-7,750 BC—squarely within the Paleoindian period, even by Great Basin standards (Williams et al. 2014b). These early roasting pits rarely include artifacts other than burned rocks and the occasional piece of debitage and a recycled piece of groundstone. Noticeably absent from the ECO assemblage are those artifacts considered typical of Paleoindian toolkits, such as large projectile points or knives, and formed

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flake tools. Interestingly, the landform on which the old roasting pits were identified contained hundreds of roasting pits that spanned the Holocene in age with radiocarbon dates reaching to just prior to Ethnohistoric times (Williams et al. 2013). However, there is no significant variability in roasting pit structure, content, or associated artifactual assemblage throughout the deposit. Together with data from specialized ethnobotanical studies identified fragments of cactus seed, juniper seed, and yucca, the overall archaeological assemblage indicates the area was occupied for millennia to exploit locally and seasonally abundant plants including yucca or agave.

Aside from a few discoveries of Lake Mojave or Silver Lake projectile points, typical Paleoindian assemblages that include large stemmed projectile points, high proportions of formal lithic tools, bifacial lithic reduction strategies, and relatively small proportions of groundstone tools are not discernable in southern California. For comparison, prime examples of “typical” pattern are sites that were studied by Emma Lou Davis (1978) on China Lake Naval Air Weapons Station near Ridgecrest, California. These sites contained fluted and unfluted stemmed points and large numbers of formal flake tools (e.g., shaped scrapers, blades). Other typical Paleoindian sites include the Komodo site (CA-MNO-679)—a multicomponent fluted point site, and CA-MNO-680—a single component Great Basined Stemmed point site (Basgall et al. 2002). At CA-MNO-679 and CA-MNO-680, groundstone tools were rare while finely made projectile points were common.

Turning back to Southern California, the fact that some of the earliest dated assemblages are dominated by processing tools runs counter to traditional notions of mobile hunter-gatherers traversing the landscape for highly valued prey. Evidence for the latter—that is, typical Paleoindian assemblages—may have been located along the coastal margin at one time, prior to glacial desiccation and a rapid rise in sea level during the early Holocene (pre-7500 BP) that submerged as much as 1.8 kilometer of the San Diego coastline. If this were true, however, it would also be expected that such sites would be located on older landforms near the current coastline. Some sites, such as CA-SDI-210 along Agua Hedionda Lagoon, contained stemmed points similar in form to Silver Lake and Lake Mojave projectile points (pre-8000 BP) that are commonly found at sites in California’s high desert (Basgall and Hall 1990). CA-SDI-210 yielded one corrected radiocarbon date of 6520-7520 BC (8520–9520 BP; Warren et al. 2004). However, sites of this nature are extremely rare and cannot be separated from large numbers of milling tools that intermingle with old projectile point forms.

Warren et al. (2004) claimed that a biface manufacturing tradition present at the Harris site complex (CA-SDI-149) is representative of typical Paleoindian occupation in the San Diego region that possibly dates between 8,365-6,200 BC (Warren et al. 2004, p. 26). Termed San Dieguito (Rogers 1945), assemblages at the Harris site are qualitatively distinct from most others

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in the San Diego region because the site has large numbers of finely made bifaces (including projectile points), formal flake tools, a biface reduction trajectory, and relatively small amounts of processing tools (Warren 1964, 1968). Despite the unique assemblage composition, the definition of San Dieguito as a separate cultural tradition is hotly debated. Gallegos (1987) suggested that the San Dieguito pattern is simply an inland manifestation of a broader economic pattern. Gallegos' interpretation of San Dieguito has been widely accepted in recent years, in part because of the difficulty in distinguishing San Dieguito components from other assemblage constituents. In other words, it is easier to ignore San Dieguito as a distinct socioeconomic pattern than it is to draw it out of mixed assemblages.

The large number of finished bifaces (i.e., projectile points and non-projectile blades), along with large numbers of formal flake tools at the Harris site complex, is very different than nearly all other assemblages throughout the San Diego region, regardless of age. Warren et al. (2004) made this point, tabulating basic assemblage constituents for key early-Holocene sites. Producing finely made bifaces and formal flake tools implies that relatively large amounts of time were spent for tool manufacture. Such a strategy contrasts with the expedient flake-based tools and cobble-core reduction strategy that typifies non-San Dieguito Archaic sites. It can be inferred from the uniquely high degree of San Dieguito assemblage formality that the Harris site complex represents a distinct economic strategy from non-San Dieguito assemblages.

If San Dieguito truly represents a distinct socioeconomic strategy from the non-San Dieguito Archaic processing regime, its rarity implies that it was not only short-lived, but that it was not as economically successful as the Archaic strategy. Such a conclusion would fit with other trends in southern California deserts, wherein hunting-related tools are replaced by processing tools during the early Holocene (Basgall and Hall 1990).

Indeed, the San Dieguito complex is the apex of easterly cultural sequences defined for the Colorado Desert and adjacent areas east of the Peninsular Range. Malcolm Rogers (1966) initially separated the San Dieguito complex into three phases that were based on an evolutionary concept that more refined tools are the result of cultures learning refined manufacture techniques and incorporating greater complexity through time. As a result, the San Dieguito complex portrayed early assemblages from simple (San Dieguito I) to complex (San Dieguito III), relative to one another. In Imperial County, the general lack of radiocarbon dates associated with perceived San Dieguito sites has stunted modern refinement of Roger's San Dieguito complex, both in terms of chronology and assemblage content. Cobble terraces exposed during the Pleistocene were available to both Paleoindian and later aboriginal groups. The ease of acquiring toolstone from desert pavements was probably attractive to hunter-gatherers traversing the region throughout prehistory, complicating definition of chronological variability in flakedstone reduction trajectories. As a result, speculation has emerged that the San Dieguito complex

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persisted for much of the Holocene, whether or not it changed in coastal regions or areas farther to the north.

Notwithstanding sample bias in trying to refine southern California Paleoindian sequences, including geomorphological transitions surrounding the Salton Trough that make discovery of well-preserved early surfaces in the western Colorado Desert near impossible, the early dates associated with strikingly Archaic-looking toolkits implies that little technological variability actually existed in the last 10,000 years (Hale 2010).

2.1.2 Archaic (8000 BC–AD 500)

The more than 1500-year overlap between the presumed age of Paleoindian occupations and the Archaic period (see Warren et al. 2004) highlights the difficulty in defining a cultural chronology in southern California desert region. If San Dieguito is the only recognized Paleoindian component, then the dominance of hunting tools implies that it derives from Great Basin adaptive strategies and is not necessarily a local adaptation. Warren et al. (2004) admitted as much, citing strong connections between San Dieguito and the Lake Mojave complex of the Great Basin. Thus, the Archaic pattern is the earliest local socioeconomic adaptation to southern California coastal and desert/peninsular environments (Hale 2001, 2009).

The Archaic pattern is relatively easy to define with assemblages that consist primarily of processing tools: millingstones, handstones, battered cobbles, heavy crude scrapers, incipient flake-based tools, and cobble-core reduction. These assemblages occur in all environments across San Diego County, from the coast past the Peninsular Range, with little variability in tool composition. Low assemblage variability over time and space among Archaic sites has been equated with cultural conservatism (Byrd and Reddy 2002; Warren 1968; Warren et al. 2004). Despite enormous amounts of archaeological work at Archaic sites, little change in assemblage composition occurs until the bow and arrow is adopted after AD 500, as well as ceramics at approximately the same time (Griset 1996; Hale 2009). Even then, assemblage formality remains low. After the bow is adopted, small arrow points appear in large quantities and already low amounts of formal flake tools are replaced by increasing amounts of expedient flake tools. Similarly, shaped millingstones and handstones decrease in proportion relative to expedient, unshaped groundstone tools (Hale 2009). Thus, the terminus of the Archaic period is equally as hard to define as its beginning because basic assemblage constituents and patterns of manufacturing investment remain stable, complimented only by the addition of the bow and ceramics.

Several cultural sequences that chronologically fit within southern California's "Archaic" period have been identified in the Mojave Desert, such as Deadman Lake, Pinto, and Gypsum periods

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(Sutton et al. 2007). However, these appear to be regionally specific and are generally not manifest south of the Transverse Ranges, particularly in San Diego and Imperial Counties other than isolated occurrences of time-sensitive projectile points. As with any time-sensitive artifact, its form can have strikingly different chronological placement by region such that a “Pinto” projectile point cannot be assumed to confer the same age estimates on an archaeological assemblage in say, San Diego or Imperial counties that it does in the Mojave Desert.

Reasons for the rapid and early development of a generalized processing economy have cited environmental deterioration or population growth as primary agents of change. Environmental deterioration cannot account for its development since southern California environments have had established plant communities for much of the last 15,000 years (Axelrod 1978; see Hale 2001) that varied mostly in vertical distribution. Indeed, the Pinto period seems to have thrived during the Archaic period, even if specific local manifestations are less obvious than others (Basgall et al. 2002). Population growth itself also presents a weak case as a primary agent of change since the archaeological record is either too incomplete to support such an analysis or because it implies a shift in mobility rather than population density. Archaic period sites reflect serial site occupation rather than either high residential mobility or sedentism (Basgall and True 1985; Hale 2001). Rather, the best explanation for the appearance and persistence of the Archaic pattern is that it represents a strongly stable socioeconomic strategy tailor-made for southern California with its rich crops of roots and tubers, seeds, and nuts and small animals.

2.1.3 Late Prehistoric (AD 500–1769)

The period of time following the Archaic and prior to Ethnohistoric times (AD 1769) is commonly referred to as the Late Prehistoric (M. Rogers 1945; Wallace 1955; Warren et al. 2004). However, several other subdivisions continue to be used to describe various shifts in assemblage composition, including the addition of ceramics and cremation practices. In northern San Diego County, the post-AD 1450 period is called the San Luis Rey Complex (True 1980), while the same period in southern San Diego County is called the Cuyamaca Complex and is thought to extend from AD 500 until Ethnohistoric times (Meighan 1959). Rogers (1929) also subdivided the last 1,000 years into the Yuman II and III cultures, based on the distribution of ceramics and the presumed spread of Yuman-speaking groups into the Colorado Desert (Moriarty 1966, 1967). There, the Patayan pattern was defined to characterize the appearance of paddle and anvil pottery from Arizona sometime after the first-century AD (Rogers 1945; Waters 1992).

Despite these regional complexes, each is defined by the addition of arrow points and ceramics, and the widespread use of bedrock mortars. Vagaries in the appearance of the bow and arrow and ceramics make the temporal resolution of late complexes difficult, including the local Cuyamaca

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complex manifestation. For this reason, the term Late Prehistoric is well-suited to describe the last 1,500 years of prehistory in the San Diego region.

Temporal trends in socioeconomic adaptations during the Late Prehistoric period are poorly understood. This is partly due to the fact that the fundamental Late Prehistoric assemblage is very similar to the Archaic pattern, but includes arrow points and large quantities of fine debitage from producing arrow points, ceramics, and cremations. The appearance of mortars and pestles is difficult to place in time because most mortars are on bedrock surfaces; bowl mortars are actually rare in the San Diego region. Some argue that the Ethnohistoric intensive acorn economy extends as far back as AD 500 (Bean and Shipek 1978). However, there is no substantial evidence that reliance on acorns, and the accompanying use of mortars and pestles, occurred prior to AD 1400. True (1980) argued that acorn processing and ceramic use in the northern San Diego region did not occur until the San Luis Rey pattern emerged after approximately AD 1450. For southern San Diego County, the picture is less clear. The Cuyamaca Complex is most recognizable after AD 1450 (Hector 1984). Similar to True (1980), Hale (2009) argued that an acorn economy did not appear in the southern San Diego region until just prior to Ethnohistoric times, and that when it did occur, a major shift in social organization followed.

Considering eastern influences from the Colorado Desert, early agricultural practices never gained traction in California, and western Colorado Desert evidence for aboriginal agriculture is virtually non-existent, absent early ethnohistoric accounts of Fort Mojave Indians (Kroeber 1925). It is likely that the stable Archaic economy persisted into the Late Prehistoric era and absorbed the efficiencies of certain technological innovations including the bow and arrow and ceramics. Locally, however, Tizon Brownware ceramic vessels dominate archaeological assemblages; Colorado buffware fragments are relatively rare, and could have been obtained simply through trade. Aboriginal agriculture probably hit a socioeconomic brick wall in southern California where a stable economy focused on generalized but regular exploitation of locally abundant plant foods was simply too efficient and socially reinforced to allow a labor intensive practice of agriculture take root (Bettinger 1999; Hale 2010).

2.1.4 Ethnohistoric (post-AD 1769)

The history of the Native American communities prior to the mid-1700s has largely been reconstructed through later mission-period and early ethnographic accounts. The first records of the Native American inhabitants of the San Diego region come predominantly from European merchants, missionaries, military personnel, and explorers. These brief, and generally peripheral, accounts were prepared with the intent of furthering respective colonial and economic aims and were combined with observations of the landscape. They were not intended to be unbiased accounts regarding the cultural structures and community practices of the newly encountered

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cultural groups. The establishment of the missions in the San Diego region brought more extensive documentation of Native American communities, though these groups did not become the focus of formal and in-depth ethnographic study until the early twentieth century (Bean and Shipek 1978; Boscana 1846; Fages 1937; Geiger and Meighan 1976; Harrington 1934; Kroeber 1925; Laylander 2000; Sparkman 1908; White 1963). The principal intent of these researchers was to record the precontact, culturally specific practices, ideologies, and languages that had survived the destabilizing effects of missionization and colonialism. This research, often understood as “salvage ethnography,” was driven by the understanding that traditional knowledge was being lost due to the impacts of modernization and cultural assimilation. Alfred Kroeber applied his “memory culture” approach (Lightfoot 2005:32) by recording languages and oral histories within the San Diego region. Ethnographic research by Dubois, Kroeber, Harrington, Spier, and others during the early twentieth century seemed to indicate that traditional cultural practices and beliefs survived among local Native American communities. These accounts supported, and were supported by, previous governmental decisions which made San Diego County the location of more federally recognized tribes than anywhere else in the United States: 18 tribes on 18 reservations that cover more than 116,000 acres (CSP 2009).

It is important to note that even though there were many informants for these early ethnographies who were able to provide information from personal experiences about native life before the Europeans, a significantly large proportion of these informants were born after 1850 (Heizer and Nissen 1973); therefore, the documentation of pre-contact, aboriginal culture was being increasingly supplied by individuals born in California after considerable contact with Europeans. As Robert F. Heizer (1978) stated, this is an important issue to note when examining these ethnographies, since considerable culture change had undoubtedly occurred by 1850 among the Native American survivors of California.

The traditional cultural boundaries between the Luiseño and Kumeyaay Native American tribal groups have been well defined by anthropologist Florence C. Shipek (1993; as summarized in San Diego County Board of Supervisors 2007:6):

In 1769, the Kumeyaay national territory started at the coast about 100 miles south of the Mexican border (below Santo Tomas), thence north to the coast at the drainage divide south of the San Luis Rey River including its tributaries. Using the U.S. Geological Survey topographic maps, the boundary with the Luiseño then follows that divide inland. The boundary continues on the divide separating Valley Center from Escondido and then up along Bear Ridge to the 2240 contour line and then north across the divide between Valley Center and Woods Valley up to the 1880-foot peak, then curving around east along the divide above Woods Valley.

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Based on ethnographic information, it is believed that at least 88 different languages were spoken from Baja California Sur to the southern Oregon state border at the time of Spanish contact (Johnson and Lorenz 2006). The distribution of recorded Native American languages has been dispersed as a geographic mosaic across California through six primary language families (Golla 2007). As the project area is located south of the San Diego River, the Native American inhabitants of the region spoke using the Tipai language subgroup of the Yuman language group. Ipai and Tipai, spoken respectively by the northern and southern Kumeyaay communities, are mutually intelligible. For this reason, these two are often treated as dialects of a larger Kumeyaay tribal group rather than as distinctive languages, though this has been debated (Luomala 1978; Laylander 2010).

Victor Golla has contended that one can interpret the amount of variability within specific language groups as being associated with the relative “time depth” of the speaking populations (Golla 2007:80). A large amount of variation within the language of a group represents a greater time depth than a group’s language with less internal diversity. One method that he has employed is by drawing comparisons with historically documented changes in Germanic and Romantic language groups. Golla (2007:71) has observed that the “absolute chronology of the internal diversification within a language family” can be correlated with archaeological dates. This type of interpretation is modeled on concepts of genetic drift and gene flows that are associated with migration and population isolation in the biological sciences.

Golla suggests that there are two language families associated with Native American groups who traditionally lived throughout the San Diego County region. The northern San Diego tribes have traditionally spoken Takic languages that may be assigned to the larger Uto–Aztecan family (Golla 2007:74). These groups include the Luiseño, Cupeño, and Cahuilla. Golla has interpreted the amount of internal diversity within these language-speaking communities to reflect a time depth of approximately 2,000 years. Other researchers have contended that Takic may have diverged from Uto–Aztecan ca. 2600 BC–AD 1, which was later followed by the diversification within the Takic speaking San Diego tribes, occurring approximately 1500 BC–AD 1000 (Laylander 2010). The majority of Native American tribal groups in southern San Diego region have traditionally spoken Yuman languages, a subgroup of the Hokan Phylum. Golla has suggested that the time depth of Hokan is approximately 8,000 years (Golla 2007:74). The Kumeyaay tribal communities share a common language group with the Cocopa, Quechan, Maricopa, Mojave, and others to east, and the Kiliwa to the south. The time depth for both the Ipai (north of the San Diego River, from Escondido to Lake Henshaw) and the Tipai (south of the San Diego River, the Laguna Mountains through Ensenada) is approximated to be 2,000 years at the most. Laylander has contended that previous research indicates a divergence between Ipai and Tipai to have occurred approximately AD 600–1200 (Laylander 1985). Despite

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the distinct linguistic differences between the Takic-speaking tribes to the north, the Ipai-speaking communities in central San Diego, and the Tipai southern Kumeyaay, attempts to illustrate the distinctions between these groups based solely on cultural material alone have had only limited success (Pigniolo 2004; True 1966).

The Kumeyaay generally lived in smaller family subgroups that would inhabit two or more locations over the course of the year. While less common, there is sufficient evidence that there were also permanently occupied villages, and that some members may have remained at these locations throughout the year (Owen 1965; Shipek 1982, 1985; Spier 1923). Each autonomous tribelet was internally socially stratified, commonly including higher status individuals such as a tribal head (*Kwaaypay*), shaman (*Kuseyaay*), and general members with various responsibilities and skills (Shipek 1982). Higher-status individuals tended to have greater rights to land resources, and owned more goods, such as shell money and beads, decorative items, and clothing. To some degree, titles were passed along family lines; however, tangible goods were generally ceremonially burned or destroyed following the deaths of their owners (Luomala 1978). Remains were cremated over a pyre and then relocated to a cremation ceramic vessel that was placed in a removed or hidden location. A broken metate was commonly placed at the location of the cremated remains, with the intent of providing aid and further use after death. At maturity, tribal members often left to other bands in order to find a partner. The families formed networks of communication and exchange around such partnerships.

The project area is located approximately 16 miles west of Tecate Peak and 7 miles west of Otay Mountain. Both of these locations figure strongly in Kumeyaay cosmological world views and creation stories. Tecate peak was called *Kuuchamaa*, and was understood to be a shamanic location for acquiring power. Shipek observed that, while there were other named mountains of cultural significance, "Kuuchanua was the central place, more sacred and more powerful than any other" (Shipek 1985). Just west of this sacred peak is the Otay Mountain, known in Tipai as *Huu*, or "the nose." Areas or regions, identified by known physical landmarks, could be recognized as band-specific territories that might be violently defended against use by other members of the Kumeyaay. Other areas or resources, such as water sources and other locations that were rich in natural resources, were generally understood as communal land to be shared amongst all the Kumeyaay (Luomala 1978). Kumeyaay exchanged a number of local goods, such as seafood, coastal plants, and various types of shell for items including acorns, agave, mesquite beans, gourds, and other more inland plants of use (Luomala 1978). While evidence for limited marine resource use exists in inland areas, terrestrial animals and other resources would have provided a much larger portion of sustenance. Game animals consisted of rabbits, hares (*Leporidae*), birds, ground squirrels, woodrats (*Neotoma*), deer, bears, mountain lions (*Puma*

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concolor), bobcats (*Lynx rufus*), coyotes (*Canis latrans*), and others. In lesser numbers, reptiles and amphibians may have been consumed.

A number of local plants were used for food and medicine. These were exploited seasonally, and were both traded between regional groups and gathered as a single tribelet moved between habitation areas. Some of the more common of these that might have been procured locally or at higher elevation varieties would have included buckwheat (*Eriogonum fasciculatum*), *Agave*, *Yucca*, lemonade berry (*Rhus integrifolia*), sugar brush (*Rhus ovata*), sage scrub (*Artemisia californica*), yerba santa (*Eriodictyon*), sage (*Salvia*), *Ephedra*, prickly pear (*Opuntia*), mulefat (*Baccharis salicifolia*), chamise (*Adenostoma fasciculatum*), elderberry (*Sambucus nigra*), oak (*Quercus*), willow (*Salix*), and *Juncus* grass among many others (Wilken 2012).

2.1.5 The Historic Period (post-AD 1542)

European activity in the region began as early as AD 1542, when Juan Rodríguez Cabrillo landed in San Diego Bay. Sebastián Vizcaíno returned in 1602, and it is possible that there were subsequent contacts that went unrecorded. Epidemic diseases may also have been introduced into the region at an early date, either by direct contacts with the infrequent European visitors or through waves of diffusion emanating from native peoples farther to the east or south (Preston 2002). It is possible, but as yet unproven, that the precipitous demographic decline of native peoples had already begun prior to the arrival of Gaspar de Portolá and Junípero Serra in 1769.

Spanish colonial settlement was initiated in 1769, when multiple expeditions arrived in San Diego by land and sea, and then continued northward through the coastal plain toward Monterey. A military presidio and a mission to deal with the local Kumeyaay and Ipai were soon firmly established at San Diego, despite violent resistance to them from a coalition of native communities in 1776. Private ranchos subsequently established by Spanish and Mexican soldiers, as well as other non-indigenous inhabitants, appropriated much of the remaining coastal or near-coastal locations (Pourade 1960–1967). Numerous land grants were established in what would become the southern San Diego County. These included Janal and Otay, located just south of Proctor Valley, as well as Jamul to the east, and Jamacha to the northwest.

Mexico's separation from the Spanish empire in 1821 and the secularization of the California missions in the 1830s caused further disruptions to native populations in western San Diego County. Some former mission neophytes were absorbed into the work forces on the ranchos, while others drifted toward the urban centers at San Diego and Los Angeles or moved to the eastern portions of the county where they were able to join still largely autonomous native communities. United States conquest and annexation, together with the gold rush in Northern

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California, brought many additional outsiders into the region. Development during the following decades was fitful, undergoing cycles of boom and bust.

2.2 Previous Cultural Resource Investigations

On April 27, 2015, a records search was conducted at the South Coastal Information Center (SCIC) at San Diego State University through the California Historical Resources Information System (CHRIS) cultural resources database for relevant previously recorded cultural resources and previous investigations completed for the project area and a surrounding one-mile area (Confidential Appendix A). Information reviewed by Dudek included location maps for previously recorded prehistoric and historical-era sites and isolates, site record forms and updates for previously identified cultural resources, previous investigation boundaries and National Archaeological Database (NADB) citations for associated reports, historic maps, and historic addresses. Additional reviewed sources included the properties listed on/as the California Points of Historical Interest (CPHI), California Historical Landmarks (CHL), California Historical Resources Inventory (CHRI), local registries of historic properties, CRHR, and NRHP.

2.2.1 Previously Conducted Studies:

SCIC records indicate that one hundred and ten (110) previous cultural resources technical investigations have been conducted within a one-mile of the proposed alignment. Of these, twelve (12) studies are known to have directly included portions, or all, of the current ADI (Table 1).

Table 1. Previous technical studies that have included the APE

Author	Year	Company	Title
Smith, Brian F	2010	Brian F. Smith and Associates	Title Unknown -- Report not on file with the SCIC; Survey, excavation, lab analysis, and report preparation for Otay Village 4 area is evident based on review of submitted DPR site forms for all resources within current ADI.
Clowery-Moreno, Sara and Larry J. Pierson	2009	Brian F. Smith and Associates	Archaeological Monitoring of the Otay Ranch Village 2 Project
Pierson, Larry J.	2009	Brian F. Smith and Associates	Negative Archaeological Monitoring Report: A Portion of Heritage Road in Conjunction with Otay Ranch Village 2, Chula Vista, California
Smith, Brian F. and Seth A. Rosenberg	2007	Brian F. Smith and Associates	An Archaeological Study for the Chula Vista International Raceway Project
McGowan, Charlotte	1997	Charlotte McGowan	Volume I Final Report of the Excavation of CSUSD CAL F:5:1
Smith, Brian F.	1996	Brian F. Smith and Associates	Results of an Archaeological Survey at the Otay Valley Parcel of the Otay Ranch

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Author	Year	Company	Title
Gross, Timothy, Ruth Alter, and Mary Robbins-Wade	1996	Affinis	Archaeological Survey for the Joint Task Force Six Border Road Repair Project, Otay Mountain, California
Carrico, Richard	1993	Ogden Environmental	Final Cultural Resource Evaluation of the 23,088 Acre Otay Ranch, San Diego County
Mooney, Brian	1992	Brian F. Mooney Associates	Evaluation of a Prehistoric Resource Processing Site CA-SDI-10452 Historic Bird Ranch CA-SDI-11386H and Water Conveyance System CA-SDI-11383 H for the Otay Valley Water
Baksh, Michael	1991	Brian F. Mooney Associates	Cultural Resource Survey for San Diego Water Authority Pipeline 4E11, San Diego County
Smith, Brian F.	1987	Brian F. Smith and Associates	The Archaeological Investigations at the Otay Rio Business Park Project a Cultural Resource Survey of 210 Acres and the Evaluation of the Loci of Site W-3861
Berry, Stanley	1987	TMI Environmental Services	Archaeological Overview and Planning Document for the Proposed Rancho Otay Project

2.2.2 Previously Identified Cultural Resources:

Four (4) cultural resources have been previously identified within the Project ADI. Four (4) cultural resources are located outside the ADI, within 50 meters (Table 2). All sites consist of sparse scatters of prehistoric lithic material. One hundred and one (101) sites have been recorded within the surrounding one-mile records search area (Confidential Appendix A).

Table 2. Recorded Cultural Resources Relative to the Project ADI

Primary	Trinomial	Age	Attributes	Relative to ADI
P-37-004738	SDI-4738	Prehistoric	AP14. Rock Shelter	Outside (Adjacent)
P-37-014531	-	Prehistoric	AP16. Isolate	Inside
P-37-014543	SDI-14175	Prehistoric	AP2. Lithic Scatter	Outside (50 meters)
P-37-014611	SDI-14244	Prehistoric	AP2. Lithic Scatter	Outside (Adjacent)
P-37-032399	SDI-20547	Prehistoric	AP2. Lithic Scatter	Inside
P-37-032400	SDI-20548	Prehistoric	AP2. Lithic Scatter	Outside (Adjacent)
P-37-032401	SDI-20549	Prehistoric	AP2. Lithic Scatter	Inside
P-37-032402	SDI-20550	Prehistoric	AP2. Lithic Scatter	Inside

P-37-004738 (SDI-4738)

This prehistoric rock shelter, recorded by Michael Waters on December 26, 1973, was reported to be in a location just outside of the Project ADI. No associated artifacts or features were noted; however the record does indicate the presence of midden with of a “slight depth”. As Waters inferred the site to be associated San Dieguito II Complex, it is likely that additional cultural

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material is/was present, and has been reported elsewhere. No update to this site record has been provided as part of subsequent technical studies in the region.

P-37-014531

This prehistoric isolate was recorded by Brian F. Smith and Associates on February 15, 1996 to a location within the eastern limits of the present ADI. This isolate consists of one lithic flake.

P-37-014543 (SDI-14175)

This prehistoric artifact scatter, measuring 191 by 152 meters in size, was recorded by Brian Smith in 1996 to a location approximately 50 meters outside of the current Project ADI. Reported artifacts include an unspecified number of lithic flakes, three (3) scrapers, one (1) chopper, and one (1) ceramic brownware pottery sherd,

P-37-014611 (SDI-14244)

This prehistoric scatter of lithic tools and flakes, measuring 40 by 30 meters in size, was first recorded by Brian F. Smith and Associates on February 15, 1996. This falls just outside of the current ADI. Artifacts noted include one (1) chopper, seven (7) scrapers, one (1) core, and at least ten (10+) flakes. No update to this site record has been provided as part of subsequent technical studies in the region.

P-37-032399 (SDI-20547)

This prehistoric scatter of lithic tools and flakes, measuring 340 by 120 meters in size, was recorded in by Brian F. Smith July 27, 2010. This site is located within the ADI for the current project. Artifacts identified include 75 metavolcanic lithic flakes, two (2) cores, and three (3) steep-edge tools. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts, excavation, analysis of artifacts, and preparation of a catalog. A report documenting these evaluation efforts is not on file with the SCIC; however, results provided by Brian Smith in the DPR forms for this resource identified no subsurface deposit and a limited diversity of material.

P-37-032400 (SDI-20548)

This prehistoric lithic scatter, measuring 45 meters by 45 meters in size, was recorded in by Brian F. Smith and Associates on July 27, 2010. The site is located just outside of the Project ADI. Reported artifacts include ten (10) lithic flakes and one (1) tool. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts,

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excavation, analysis of artifacts, and preparation of a catalog. A report documenting these evaluation efforts is not on file with the SCIC; however, results provided by Brian Smith in the DPR forms for this resource identified no subsurface deposit and a limited diversity of material.

P-37-032401 (SDI-20549)

This prehistoric lithic scatter, measuring 54 meters by 38 meters in size, was recorded in by Brian F. Smith and Associates on July 27, 2010. The southern portion of this site intersects the ADI. Reported artifacts include eight (8) lithic flakes and one (1) core. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts, excavation, analysis of artifacts, and preparation of a catalog. A report documenting these evaluation efforts is not on file with the SCIC; however, results provided by Brian Smith in the DPR forms for this resource identified no subsurface deposit and a limited diversity of material.

P-37-032402 (SDI-20550)

This prehistoric lithic scatter, measuring 30 meters by 61 meters in size, was recorded in by Brian F. Smith and Associates on July 27, 2010. Reported artifacts include eight (8) lithic flakes, one (1) flake-scraper, and one (1) core. The site is located within the current ADI. A hammerstone was additionally noted in the DPR form artifact constituents, however was not within the lab catalog table on the final page of this record. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts, excavation, analysis of artifacts, and preparation of a catalog. An evaluation report detailing these efforts is not on file with the SCIC; however, results provided by Brian Smith in the DPR forms for this resource identified a very limited subsurface deposit (2 flakes within 10 cm of the surface) and a limited diversity of material.

2.3 NAHC Sacred Lands File Search

Dudek requested a NAHC search of their Sacred Lands File on June 4, 2015 for the proposed project area. The NAHC provided results on July 16, 2015. This search did not indicate the presence of Native American traditional cultural place(s) within this area, or the surrounding one-mile buffer (Confidential Appendix B). The NAHC additionally provided a list of Native American tribes and individuals/organizations that might have knowledge of cultural resources in this area.

2.4 Tribal REPRESENTATIVE CORRESPONDENCE

Following the NAHC response, letters were sent to NAHC-listed tribal representatives with the intent of requesting information, opinions or concerns relating to the proposed project impacts

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(Confidential Appendix B). These letters contained a brief description of the planned project, reference maps, and a summary of the NAHC SLF search results. No responses to these outreach attempts have been received to date. The lead agency will be provided with any responses should they be received from tribal representatives.

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3.0 SURVEY METHODS

Dudek Archaeologists Scott Wolf and Anthony Cortez conducted an intensive pedestrian cultural survey of the of the project area on May 11, 2015. Approximately two-thirds of the ground surface was directly visible within most portions of the ADI, however, ground surface visibility was restricted to less than thirty percent in some areas with especially dense low laying vegetation. Archaeological survey exceeded the applicable Secretary of Interior Professional Qualifications Standards for archaeological survey and evaluation. The project area of potential effect (APE) was subject to a 100% survey with transects spaced no more than 15 meters apart wherever possible and oriented in cardinal directions. Survey crew was equipped with a Global Positioning System (GPS) receiver with sub-meter accuracy. Location-specific photographs were taken using an Apple third generation iPad equipped with 8 MP resolution and georeferenced PDF maps of the project area. Accuracy of this device ranged between 3 meters and 10 meters. Evidence for buried cultural deposits was opportunistically sought through inspection of natural or artificial erosion exposures and the spoils from rodent burrows. No artifacts were identified or collected during the survey. Field recording and photo documentation of features and the APE was completed. A Native American monitor from Red Tail Monitoring was present for survey activities.

Documentation of cultural resources complied with the Office of Historic Preservation (OHP) and Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716 et seq.) and the California Office of Historic Preservation Planning Bulletin Number 4(a). All sites identified during this inventory were recorded on California Department of Parks and Recreation Form DPR 523 (Series 1/95), using the Instructions for Recording Historical Resources (Office of Historic Preservation 1995).

3.1 Disturbances

All areas of the ADI showed evidence of surface disturbances from disking/plowing activities, as indicated by the presence of furrows and irregular surface topography. Other areas have been previously subject to grading and other mechanical earth-work. All areas have been subject to natural aeolian and alluvial processes. The presence of numerous rodent burrows throughout the ADI suggests that bioturbation is prevalent. The exact depth and character of past disturbances is unclear, allowing for the possibility that deeper strata may have been unaffected. This indicates that undisturbed resources could be present.

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4.0 RESULTS

4.1 Archaeological Survey

Dudek Archaeologists Scott Wolf and Anthony Cortez, as accompanied by Native American monitor Tuchon Phoenix of Red Tail Monitoring and Research Inc., inspected all areas of the project ADI on May 11, 2015. As part of this survey, the cultural team revisited the recorded locations of all four previously identified archaeological resources within the ADI. Two of these resources were relocated (P-37-032399 and P-37-032402). Two previously recorded resources were not relocated (P-37-014531 and P-37-032401). P-37-032400, recorded just outside of the ADI, was observed to be located in its previously recorded location (Table 3).

Table 3. Relocated Resources Within and Near the ADI

Primary	Trinomial	Age	Attributes	Recorded Relative to ADI	Relocated
P-37-004738	SDI-4738	Prehistoric	AP14. Rock Shelter	Outside (Adjacent)	No
P-37-014531	-	Prehistoric	AP16. Isolate	Inside	No
P-37-014543	SDI-14175	Prehistoric	AP2. Lithic Scatter	Outside (50 meters)	No
P-37-014611	SDI-14244	Prehistoric	AP2. Lithic Scatter	Outside (Adjacent)	No
P-37-032399	SDI-20547	Prehistoric	AP2. Lithic Scatter	Inside	Yes
P-37-032400	SDI-20548	Prehistoric	AP2. Lithic Scatter	Outside (Adjacent)	Yes
P-37-032401	SDI-20549	Prehistoric	AP2. Lithic Scatter	Inside	No
P-37-032402	SDI-20550	Prehistoric	AP2. Lithic Scatter	Inside	Yes

P-37-004738 (SDI-4738)

This prehistoric rock shelter, with associated shallow midden deposit, was recorded by Michael Waters on December 26, 1973. The site is recorded outside of the Project offsite components corridor of the ADI. The reported rock shelter and associated midden soils were not observed during the current survey to be within the ADI, nor was rock shelter-like landscape feature observed to be in the vicinity surrounding the ADI survey corridor. The mapped location of the site was not revisited due to property access restrictions.

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P-37-014531

This prehistoric isolate was recorded in by Brian F. Smith and Associates on February 15, 1996. This isolate consists of one lithic flake recorded to a location within the eastern portion of the ADI. The recorded location of the isolate was revisited during the current survey; no artifacts were observed.

P-37-014543 (SDI-14175)

This prehistoric artifact scatter, measuring 191 by 152 meters in size, was recorded by Brian F. Smith and Associates in 1996 to a location approximately 50 meters outside of the current Project ADI. The site was not encountered during the Dudek survey, and does not appear to extend to within current Project ADI.

P-37-014611 (SDI-14244)

This prehistoric scatter of lithic tools and flakes, measuring 40 by 30 meters in size, was first recorded by Brian F. Smith and Associates on February 15, 1996. This resource has been recorded as just outside of the Project offsite components ADI corridor. No artifacts relating to this site were identified within in the current survey, and reported lithic scatter does not appear to extend within the Project ADI.

P-37-032399 (SDI-20547)

This prehistoric scatter of lithic tools and flakes, measuring 340 by 120 meters in size, was recorded by Brian F. Smith and Associates July 27, 2010. This site is located within the ADI for the current Project. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts, excavation, analysis of artifacts, and preparation of a catalog. The recorded location of this site was intensively surveyed by Dudek in support of the present Project. Three artifacts were observed to be present on the surface, including a quartzite core, a volcanic assayed cobble, and a volcanic primary flake. It is evident that the reported artifacts on the surface of the site were collected during archaeological testing conducted by Brian Smith prior to the 2010 DPR form preparation for P-37-032399. The three (3) prehistoric artifacts identified by Dudek were either missed during this initial testing process or, as likely, were brought to the surface through subsequent disking activity that is evidenced to have occurred relatively recently throughout the site area by the presence of distinctive furrows. Based on this survey and review of available information provided by Brian Smith & Associates, it appears that P-37-032399 (SDI-20547) is not eligible for local register, CRHR, or NRHP listing.

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P-37-032400 (SDI-20548)

This prehistoric lithic scatter, measuring 45 meters by 45 meters in size, was recorded by Brian F. Smith and Associates on July 27, 2010 to a location immediately outside of the Project ADI. Reported artifacts include ten (10) lithic flakes and one (1) tool. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts, excavation, analysis of artifacts, and preparation of a catalog. Dudek identified a grinding handstone on the surface of this site, just outside of the Project ADI. The presence of this handstone identified by Dudek indicates that the artifact was either missed during this initial testing process by Brian Smith or, as likely, was brought to the surface through disking activity that is evidenced to have occurred relatively recently throughout the site area by the presence of distinctive furrows. The site was confirmed not to extend within the current ADI during Dudek's intensive pedestrian survey.

P-37-032401 (SDI-20549)

This prehistoric lithic scatter, measuring 54 meters by 38 meters in size, was recorded by Brian F. Smith and Associates on July 27, 2010 to a location that intersects the current Project ADI. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts, excavation, analysis of artifacts, and preparation of a report. The recorded site location was intensively surveyed by Dudek. No surface artifacts remain at P-37-03240. The site area was noted to have been disturbed by recent disking activity, as indicated by visible furrows in the ground surface. Based on this survey and review of available information provided by Brian Smith & Associates, it appears that P-37-032401 (SDI-20549) is not eligible for local register, CRHR, or NRHP listing.

P-37-032402 (SDI-20550)

This prehistoric lithic scatter, measuring 30 meters by 61 meters in size, was recorded by Brian F. Smith and Associates on July 27, 2010 to a location that intersects the current Project ADI. Reported artifacts include eight (8) lithic flakes, one (1) flake-scraper, and one (1) core. A hammerstone was additionally noted in the DPR form as a constituent artifact; however, it was absent from the lab catalog table on the final page of this record. DPR forms prepared for this resource indicate that the site was fully recorded through surface collection of artifacts, excavation, analysis of artifacts, and preparation of a report. The site was revisited by Dudek as part of the intensive pedestrian survey for the Project. Dudek relocated the reported hammerstone (that was apparently missed during the surface collection of this site) within the recorded boundary of the P-37-032402. No additional artifacts were observed on the surface at this site. The site area was noted to have been disturbed by recent dicing activity, as indicated by visible

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furrows in the ground surface. Based on this survey and review of available information provided by Brian Smith & Associates, it appears that P-37-032402 (SDI-20550) is not eligible for local register, CRHR, or NRHP listing.

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5.0 SUMMARY AND MANAGEMENT CONSIDERATIONS

5.1 Impact Analysis

CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of an historical resource that convey its historical significance (i.e., its character-defining features) can be considered to materially impair the resource’s significance. In order to best mitigate the effects of the proposed project on cultural resources, a reasonable, good faith effort must be applied to determining their archaeological character and eligibility for listing in the California Register of Historical Resources (CRHR). Impacts to resources are summarized within Table 4.

Table 4. Impacts to Cultural Resources and Recommended Mitigation

Primary	Trinomial	Age	Impact	Resource Significance	Recommended Mitigation
P-37-014531	-	Prehistoric	Direct	Isolate - Resource not eligible for local register, CRHR or NRHP	Impact mitigated through archaeological recordation
P-37-032399	SDI-20547	Prehistoric	Direct	Resource not eligible for local register, CRHR or NRHP listing based on previous testing by Brian Smith & Associates(2010)	Impact may be mitigated though completion of final reporting of Phase II testing efforts and implementation of a cultural monitoring program during construction
P-37-032401	SDI-20549	Prehistoric	Direct	Resource not eligible for local register, CRHR or NRHP listing based on previous testing by Brian Smith & Associates (2010)	Impact may be mitigated though completion of final reporting of Phase II testing efforts and implementation of a cultural monitoring program during construction
P-37-032402	SDI-20550	Prehistoric	Direct	Resource not eligible for local register, CRHR or NRHP listing based on previous testing by Brian Smith & Associates (2010)	Impact may be mitigated though completion of final reporting of Phase II testing efforts and implementation of a cultural monitoring program during construction
P-37-004738	SDI-4738	Prehistoric	Indirect	No information relating to previous evaluation available. Assumed eligible for local register and CRHR listing.	Risk of impacts to cultural resource may be mitigated through installation of temporary fencing along project construction limits within 100 feet of resource boundary and through periodic inspection by cultural construction monitors

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Primary	Trinomial	Age	Impact	Resource Significance	Recommended Mitigation
P-37-014543	SDI-14175	Prehistoric	Indirect	No information relating to previous evaluation available. Assumed eligible for local register and CRHR listing.	Risk of impacts to cultural resource may be mitigated through installation of temporary fencing along project construction limits within 100 feet of resource boundary and through periodic inspection by cultural construction monitors
P-37-014611	SDI-14244	Prehistoric	Indirect	No information relating to previous evaluation available. Assumed eligible for local register and CRHR listing.	Risk of impacts to cultural resource may be mitigated through installation of temporary fencing along project construction limits within 100 feet of resource boundary and through periodic inspection by cultural construction monitors
P-37-032400	SDI-20548	Prehistoric	Indirect	Resource not eligible for local register, CRHR or NRHP listing based on previous testing by Brian Smith & Associates (2010)	Risk of impacts to cultural resource may be mitigated through installation of temporary fencing along project construction limits within 100 feet of resource boundary and through periodic inspection by cultural construction monitors

The NAHC Sacred Lands File search and subsequent tribal information outreach failed to indicate the presence of Native American resources or other areas of cultural value. Based upon SCIC records and intensive pedestrian survey results, the Project as currently designed does have the potential to impact cultural resources. Three (3) prehistoric archaeological sites (P-37-032399, P-37-032402, and P-37-014531) and one isolate (P-37-014531) have been previously identified within the Project area of direct impact (ADI). Four (4) additional prehistoric archaeological sites (P-37-004738, P-37-014543, P-37-014611, and P-37-032400) have been recorded outside the ADI (within 50 meters). Increased pedestrian and vehicular traffic in the vicinity during Project implementation does have the potential to result in indirect effects to these resources. No built-environment or historical-era resources have been identified within, or surrounding, the ADI.

All archaeological sites within the ADI (P-37-032399, P-37-032402, and P-37-014531) were previously evaluated by Brian Smith & Associates (between 2008-2010) for California Register of Historical Resources (CRHR) listing. Based on review of Department of Parks and Recreation (DPR) site records, evaluation efforts included surface mapping and collection of artifacts,

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subsurface excavation, lab analysis, and cataloging of artifacts. From these testing maps, catalog tables, and testing information provided in these DPR site record forms, it is evident that these sites lack the data potential needed to be eligible for listing in the local register or the CRHR. The SCIC has no evaluation report on file summarizing the efforts conducted by Brian Smith & Associates; it unclear if a draft evaluation report was prepared, but appears likely based on the amount of fieldwork and level of analyses provided in DPR forms. All three sites consist of low-density lithic scatters with a limited number of lithic tools. The total subsurface recovery, from all three sites combined, includes two lithic flakes within 10 centimeters of the surface (both from P-37-032402). Taking into consideration the disturbed nature of the ground surface throughout this area, it is likely that the subsurface context of these artifacts is a product of disking activity rather than primary deposition. Based on a review of this information the following significance assessments can be provided: the sites are not associated with any significant events locally, regionally, or nationally (Criterion 1); are not associated with the lives of any important people locally, regionally, or nationally (Criterion 2); do not contain architecture (Criterion 3); and do not have the potential to yield additional information beyond that recovered by Brian Smith & Associates locally, regionally, or nationally (Criterion 4; Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852; 36 CFR 60.4). The surface artifacts from these sites were collected, and a thorough excavation indicated that the sites have no apparent intact subsurface cultural deposits. It is clear from DPR forms prepared for these resources, that the sites are not eligible for listing on the CRHR or the Local Register, and are not unique archaeological resources under CEQA.

Isolated resources, such as P-37-014531, have limited potential to provide important archaeological or cultural information, nor are they eligible for CRHR listing. While the isolate does speak to the presence and types of activities of past Native American inhabitants of this region, the provenience of this artifact is questionable due to the highly disturbed setting of its recorded location. OHP guidelines observe that resources lacking individual distinction may still contribute to the understanding and appreciation of prehistory, and as such, recommend that isolated archaeological artifacts be documented to minimum standards (OHP 1995). In compliance with these guidelines, DPR forms were previously been prepared for P-37-014531 by Brian Smith prior to being collected. The isolate is not associated with any significant events locally, regionally, or nationally (Criterion 1); is not associated with the lives of any important people locally, regionally, or nationally (Criterion 2); does not contain architecture (Criterion 3); and does not have the potential to yield information locally, regionally, or nationally (Criterion 4; Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852; 36 CFR 60.4). P-37-014531 is not eligible for listing on the CRHR or the Local Register, and is not a unique archaeological resource under CEQA.

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5.2 Recommendations

Based upon SCIC and NAHC search information, tribal outreach, and intensive pedestrian survey results, the Project as currently designed does have the potential to impact cultural resources. Sites P-37-032399, P-37-032402, and P-37-014531, as well as isolate P-37-014531, do not appear eligible for CRHR or Local Register listing. However, there is always potential to encounter previously unidentified subsurface cultural deposits. It is recommended that impacts to cultural resource may be reduced to less than significant through full-time monitoring by an archaeologist and Native American monitor of initial Project-related earth-moving activities with the potential to encounter cultural material, installation of temporary fencing along Project limits within 100 feet of previously recorded sites located outside of the ADI for the duration of earth-moving activities, and preparation of a final cultural monitoring report following completion of construction. Prior to the initiation of construction, the cultural consultant should acquire all evaluation information and the draft evaluation report, if a report was prepared by Brian Smith & Associates. The final monitoring report should also incorporate a summary of the evaluation results and analyses previously conducted by Brian Smith & Associates for the archaeological sites recorded within the Project area, and should ensure that all archaeological material collected through Phases I-IV archaeological work is appropriately curated.

As summarized herein, a qualified archaeologist (Project Archaeologist), as defined by CEQA and the City Guidelines, should be retained to manage the implementation of the following mitigation program:

CUL-1:

- A. Prior to beginning construction activities, the Project Archaeologist and Native American representative will attend any pertinent preconstruction meetings with the construction manager and/or grading contractor in order to provide recommendations and answer questions relating to the archaeological monitoring program. The Project Archaeologist will be familiar with the cultural inventory conducted for the current project and prepared to introduce any pertinent information concerning expectations and probabilities of discovery during ground disturbing activities. Prior to the initiation of construction, the cultural consultant should acquire all evaluation information and the draft evaluation report, if a report was prepared by Brian Smith & Associates.
- B. An archaeological monitor familiar with local resources and Native American monitor will be present full-time during the initial disturbances of soil with potential to contain cultural deposits. All areas of initial project-related subsurface

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disturbance should be assumed to have potential to contain cultural deposits. Monitoring of initial ground disturbance will not exceed a depth of 5 feet (1.5 meters) unless cultural resources are identified or if, through direct inspection of subsurface exposures by the Project Archaeologist, an area is observed to have the potential to support the presence archaeological deposits at greater depths. Cultural resources monitoring may be reduced from initial full-time monitoring to periodic spot checks, or discontinued if appropriate, once the Project Archaeologist determines that there is little or no risk to encounter cultural material.

- C. Installation of temporary fencing along Project limits within 100 feet of previously recorded sites located outside of the ADI (P-37-004738, P-37-014543, P-37-014611, and P-37-032400) for the duration of earth-moving activities in order to avoid any indirect impacts to these resources. Archaeological monitors will be tasked with installation of these exclusionary temporary fences prior to the initiation of construction. Periodic checks should be made to ensure that these fences remain in sound condition throughout construction. In order to remain compliant with CEQA and City-mandated confidentiality restrictions, temporary fencing, and signage as appropriate, should not directly reference the presence of cultural resources.
- D. Daily archaeological and Native American monitoring logs will be prepared. Logs will include monitor names and affiliations, a description of general activities observed, cultural discoveries, as well as comments or concerns as applicable.
- E. In the event of an archaeological discovery, and when requested by the archaeological monitor or Native American monitor, the resident contractor will divert, redirect, or temporarily halt ground disturbing activities in the area of discovery or impacts to allow for preliminary inspection of potentially significant archaeological resources or impacts. The significance of the discovered resources or impacts will be determined by the archaeologist, in consultation with the City of Chula Vista. For significant cultural resources, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts before grading activities in the area of discovery will be allowed to resume.
- F. The Project Archaeologist will be responsible for ensuring that all cultural materials collected will be cleaned, catalogued, and permanently curated with an appropriate institution; that a letter of acceptance from the curation institution has been submitted to the City; that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material will be identified as to species; and specialty studies are completed, as appropriate. The

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Project Archaeologist should make a good faith effort to ensure that all archaeological material collected through previous work conducted by Brian Smith & Associates is appropriately curated with any material recovered through construction monitoring.

- G. If human remains are discovered, work will halt in that area and procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5) will be followed by the archaeological monitor after notification to the County Coroner by the supervising archaeologist. If Native American remains are present, the County Coroner will contact the Native American Heritage Commission to designate a Most Likely Descendent, who will arrange for the dignified disposition and treatment of the remains.
- H. Within three months following the completion of monitoring, two copies of a monitoring results report (even if negative) and/or evaluation report, if applicable, that describes the results, analysis, and conclusions of the archaeological monitoring program (with appropriate graphics) will be submitted to City.
- I. For significant archaeological resources encountered during monitoring, the Research Design and Data Recovery Program will be included as part of the final evaluation monitoring report. Two copies of the final monitoring report for significant archaeological resources, if required, will be submitted to the City. This final monitoring report should also incorporate a summary of the evaluation results and analyses previously conducted by Brian Smith & Associates for the archaeological sites recorded within the Project area.
- J. The archaeologist will be responsible for recording (on the appropriate CA DPR 523 Series forms) any significant or potentially significant resources encountered during the archaeological monitoring program in accordance with the CEQA and City's Cultural Resources Guidelines, and submittal of such forms to the South Coastal Information Center at San Diego State University with the final monitoring results report.

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