APPENDIX D – CULTURAL RESOURCES ASSESSMENT

A PHASE I AND II CULTURAL RESOURCES STUDY FOR THE PORT OF LOS ANGELES TRUCK LOT PROJECT

LOS ANGELES COUNTY, CALIFORNIA

APNs 7440-016-001, -002, -003, and 7412-024-007

Lead Agency:

Los Angeles Harbor Department
Environmental Management Division
425 South Palos Verdes Street
San Pedro, California 90733

Prepared For:

EPD Solutions
3333 Michelson Drive, Suite 500
Irvine, CA 92612

Prepared by:

BFSA Environmental Services,
a Perennial Company
14010 Poway Road, Suite A
Poway, California 92064

July 31, 2023; Revised August 21, 2023; Revised March 14, 2024

BFSA Environmental Services
A Perennial Company

Archaeological Database Information

Authors:	Tracy A. Stropes, M.A., RPA, and Jillian L.H. Conroy
Consulting Firm:	BFSA Environmental Services, a Perennial Company 14010 Poway Road, Suite A Poway, California 92064 (858) 484-0915
Report Date:	July 31, 2023; Revised August 21, 2023; Revised March 14, 2024
Report Title:	A Phase I and II Cultural Resources Study for the Port of Los Angeles Truck Lot Project, Los Angeles County, California (APNs 7440-016-001, -002, -003, and 7412-024-007)
Lead Agency:	Los Angeles Harbor Department Environmental Management Division 425 South Palos Verdes Street San Pedro, California 90733
Prepared For:	EPD Solutions 3333 Michelson Drive, Suite 500 Irvine, California 92612
Submitted by:	BFSA Environmental Services, a Perennial Company 14010 Poway Road, Suite A Poway, California 92064
Assessor's Parcel Numbers:	7440-016-001, -002, -003, and 7412-024-007
USGS Quadrangle:	*Torrance, California* (7.5-minute) topographic quadrangle
Key Words:	Archaeological Test Report; prehistoric; Site CA-LAN-150; County of Los Angeles; not significant, not CRHR eligible; USGS *Torrance* (7.5-minute) Quadrangle.

Table of Contents

Page

Appendices

Appendix A – Resumes of Key Personnel
Appendix B – Archaeological Records Search Results*
Appendix C – NAHC Sacred Lands File Search Results*
Appendix D – Confidential Map*

**Deleted for public review and bound separately in the Confidential Appendix*

List of Figures

Page

**Deleted for public review and bound separately in the Confidential Appendix*

List of Plates

List of Tables

1.0 MANAGEMENT SUMMARY/ABSTRACT

In response to a request from EPD Solutions, BFSA Environmental Services, a Perennial Company (BFSA), conducted a Phase I and II cultural resources study of the for the Port of Los Angeles Truck Lot Project within the County of Los Angeles, California. The assessment was conducted as part of the environmental clearance required for a new truck parking facility development with 393 stalls covering 811,741 square feet proposed for the subject property. The evaluation program was conducted in accordance with the California Environmental Quality Act (CEQA) Section 15064.5 and the Los Angeles Harbor Department (LAHD) environmental guidelines. The purpose was to determine the presence of any archaeological or historic resources that would be affected by the proposed project and whether these resources meet the eligibility requirements for the California Register of Historical Resources (CRHR).

A records search was reviewed from the South Central Coastal Information Center (SCCIC) at California State University, Fullerton (CSU Fullerton) to identify previously discovered archaeological sites in the project area. In addition to this, a Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) to list potentially sacred landforms or ceremonial sites on or near the project. The records search identified one previously recorded prehistoric shell midden site potentially within the project (CA-LAN-150, also known as the McDonald Site). N.C. "Nels" Nelson recorded the site in 1912 (Nelson 1912) within the current project boundaries, but later reports by Dillon (1981) suggested the site had been destroyed. The current archaeological resources survey confirmed the presence of potential remaining elements of CA-LAN-150 within the proposed project boundaries. However, CA-LAN-150 was likely impacted on the surface by previous grading and the development of Interstate 110. The current project area was also part of the Western Terrace housing units, a housing project for war workers during World War II. The units overlapped a portion of the project area but were removed circa the late 1950s, with Interstate 110 being built sometime in the early 1960s. After that, the project area remained largely untouched, save for the buildings that were constructed just south of the site in the early 1980s.

Staff Archaeologist Allison Reynolds, under the direction of Principal Investigator Tracy A. Stropes, M.A., RPA, conducted the archaeological survey of the project on March 2, 2023. The subject property is an undeveloped lot that slopes upwards to the east abutting the 110 Freeway along its eastern edge. The property has been disked and likely graded in the past. Aerial photographs from 1952 through 1963 show that between those years, the entire project area had been developed, then cleared and then eventually graded again for the development of the 110 Freeway. Currently, a trail crosses the project largely from north to south across the property. As a result, the native landform and soil have been impacted by previous use. Although visibility was limited throughout the project due to vegetative ground cover, remnant evidence of an unconsolidated prehistoric shell scatter was identified during the survey.

Based upon the results of the current survey, BFSA determined that there is potential for the presence of an intact buried component of CA-LAN-150 within the project boundaries. Therefore, to comply with LAHD guidelines and CEQA requirements for the project, a Phase II testing and evaluation program was required to investigate the presence of an intact buried component on the site. An additional Phase II study was conducted to augment the Phase I level of work to further explore the potential for intact resources, determine if the shell is a secondary deposit from previous development, and, if intact resources are present, what mitigation measures are needed to reduce the level of impacts associated with the proposed development. A limited shovel testing program was conducted to sample areas within the identified shell scatter to ensure that any buried cultural resources were documented prior to the development of the project.

BFSA archaeologists James Shrieve, Allison Reynolds, and John Baber, M.A., RPA, conducted a testing and evaluation program on July 6, 2023, under the direction of Principal Investigator Tracy A. Stropes. Results of archaeological testing identified a highly disturbed prehistoric deposit containing seven debitage, one core fragment, one flake tool, 18.7 grams of faunal bone and 1,722.5 grams of marine shell. The soil matrix containing the prehistoric materials within the subject property appears to have been heavily impacted by repeated development of the parcel over time. The dispersed nature of the shell within the project area and mixed modern refuse suggests that the shell may represent a secondary deposit from resources once outside of or immediately adjacent to the current project area. Because the current testing program did not produce any significant artifacts or intact subsurface deposits, and because the identified subsurface deposit lacks integrity, it was determined to not qualify as a Historical Resource, is not significant according to CEQA criteria, and is not eligible for designation on the CRHR. However, given the presence of subsurface prehistoric materials, mitigation monitoring is recommended as a condition of project approval.

A copy of this report will be permanently filed with the SCCIC at CSU Fullerton. All notes and other materials related to this project will be curated at the BFSA archaeological laboratory in Poway, California.

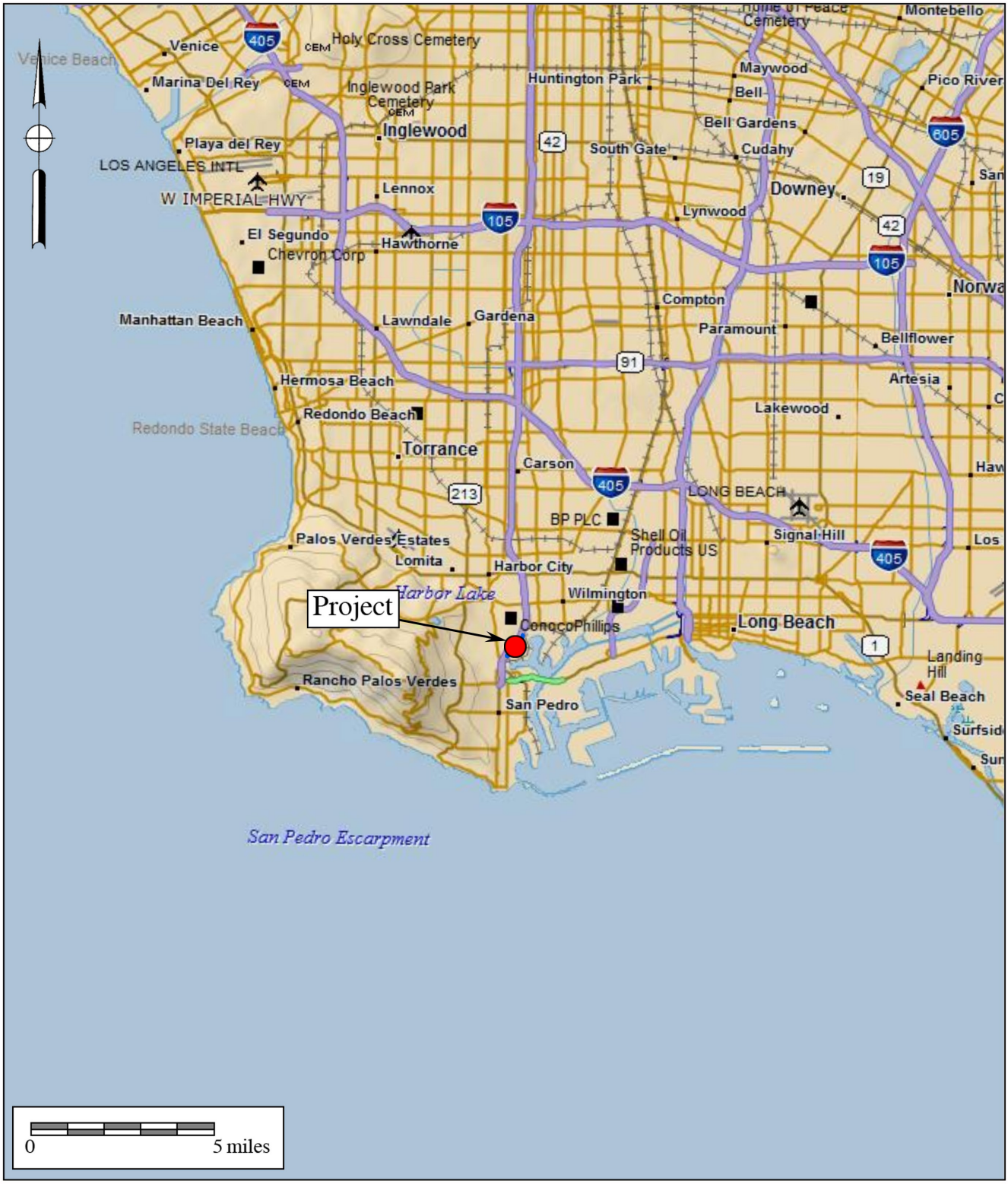
2.0 INTRODUCTION

The Phase I and II cultural resources study for the Los Angeles Truck Lot Project was conducted in conformance with CEQA and the LAHD's environmental guidelines. The project is located at 1599 John S. Gibson Boulevard within the County of Los Angeles, California (Figure 2.0–1). The project includes Assessor's Parcel Numbers [APNs] 7440-016-001, -002, -003, and 7412-024-007 and is situated within unsectioned land, as shown on the U.S. Geological Survey (USGS) (7.5-minute) *Torrance, California* topographic quadrangle map (Figure 2.0–2). The Port of Los Angeles Truck Lot Project proposes to develop a new truck parking facility with 393 stalls covering 811,741 square feet (18.63 acres) of area (Figure 2.0–3).

An archaeological records search for the project conducted at the SCCIC at CSU Fullerton, identified one previously recorded prehistoric shell midden site potentially within the project (CA-LAN-150, also known as the McDonald Site). N.C. "Nels" Nelson recorded the site in 1912 (Nelson 1912) within the current project boundaries, but later reports by Dillon (1981) suggested the site had been destroyed. The current archaeological resources survey confirmed the presence of potential remaining elements of CA-LAN-150 within the proposed project boundaries. However, CA-LAN-150 was likely impacted on the surface by previous grading and the development of the 110 freeway. The current project area was also part of the Western Terrace housing units, a housing project for war workers during World War II. The units overlapped a portion of the project area but were removed circa the late 1950s, with the110 freeway being built sometime in the early 1960s (Figures 2.0–4 through 2.0–6). After that, the project area remained largely untouched, save for the buildings that were constructed just south of the site in the early 1980s.

Principal Investigator Tracy A. Stropes directed the cultural resources study for the project. The initial archaeological survey was conducted on March 2, 2023, by Staff Archaeologist Allison Reynolds under the direction of Principal Investigator Tracy A. Stropes. During the archaeological field survey, an unconsolidated scatter of prehistoric shell was identified in the southern portion of the project. The presence of prehistoric material indicated a potential for subsurface deposits to also be present.

To investigate the potential for buried deposits across the project, BFSA archaeologists James Shrieve, Allison Reynolds, and John Baber conducted a testing and evaluation program on July 6, 2023. Thirteen shovel test pits (STPs) were excavated and screened to determine if cultural resources were present within the subsurface portion of the property. The testing program was conducted prior to grading to facilitate the identification of any significant subsurface archaeological deposits potentially associated with CA-LAN-150 and, if significant deposits or features were identified, to outline measures needed to achieve the mitigation of impacts. The testing program recovered seven debitage, one core fragment, one flake tool, 18.7 grams of faunal bone, and 1,722.5 grams of marine shell.

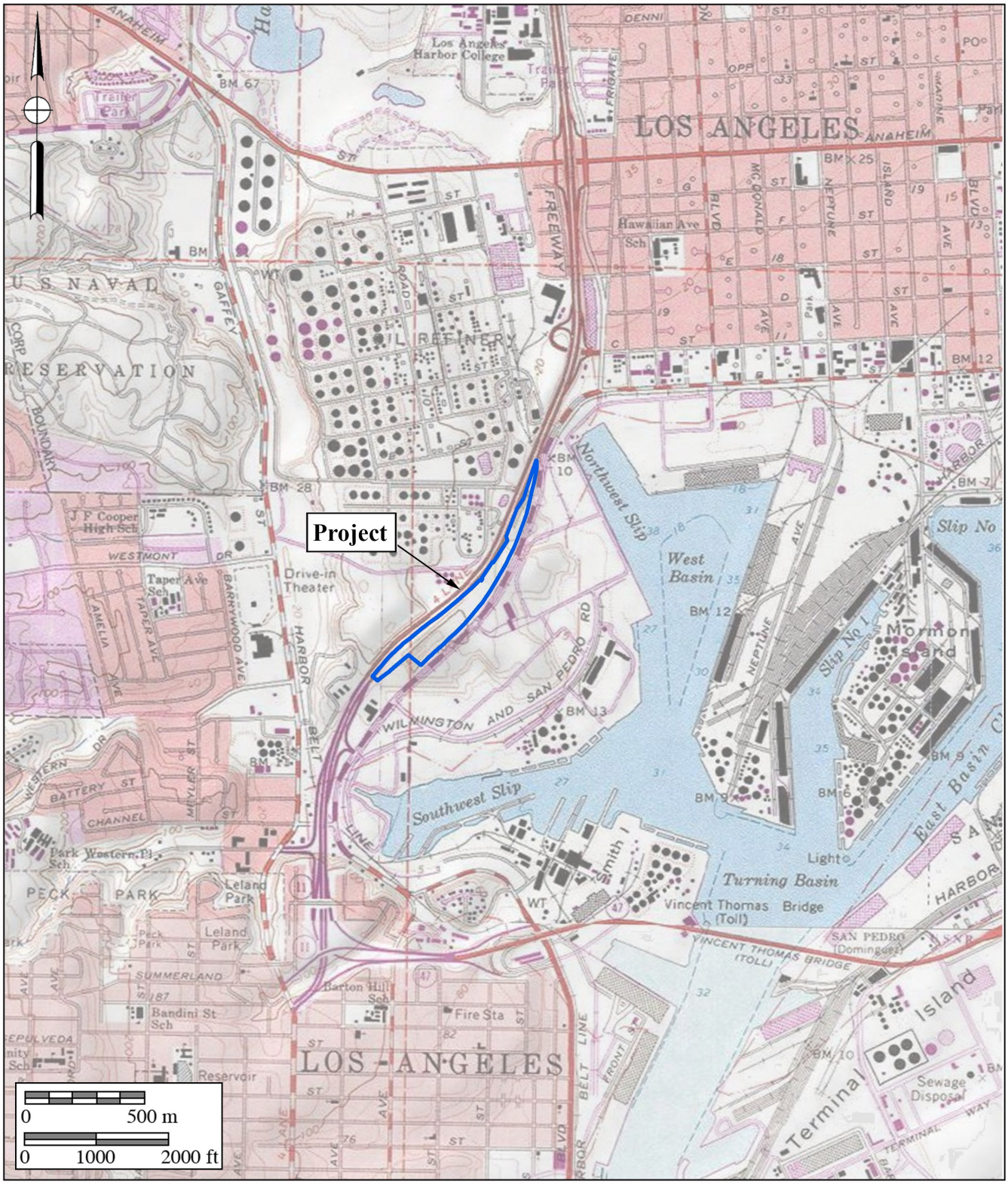


BFSA Environmental Services
A Perennial Company

Figure 2.0–1
General Location Map

The Port of Los Angeles Truck Lot Project

DeLorme World Base Map Service (1:250,000 series)

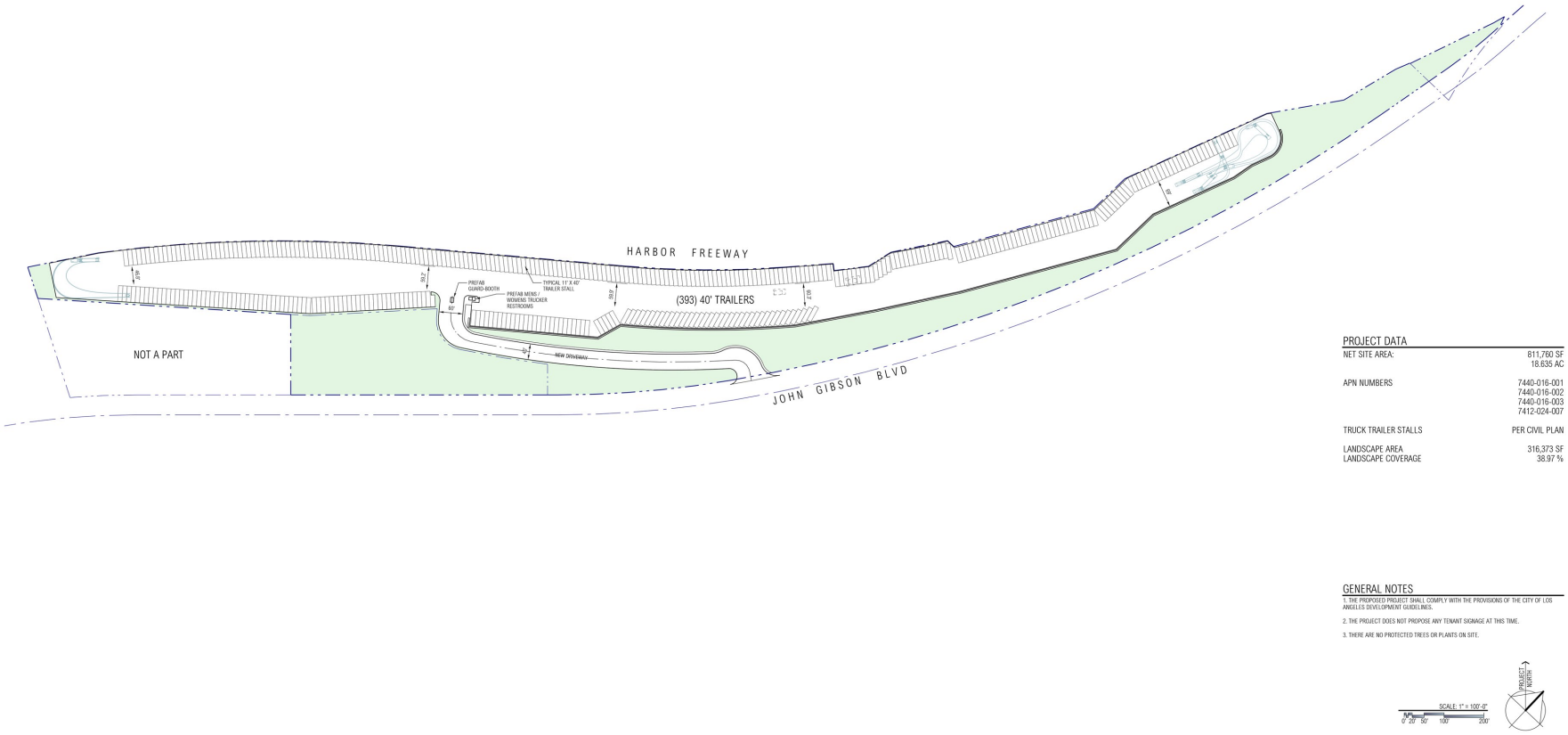


BFSA Environmental Services
A Perennial Company

Figure 2.0–2
Project Location Map

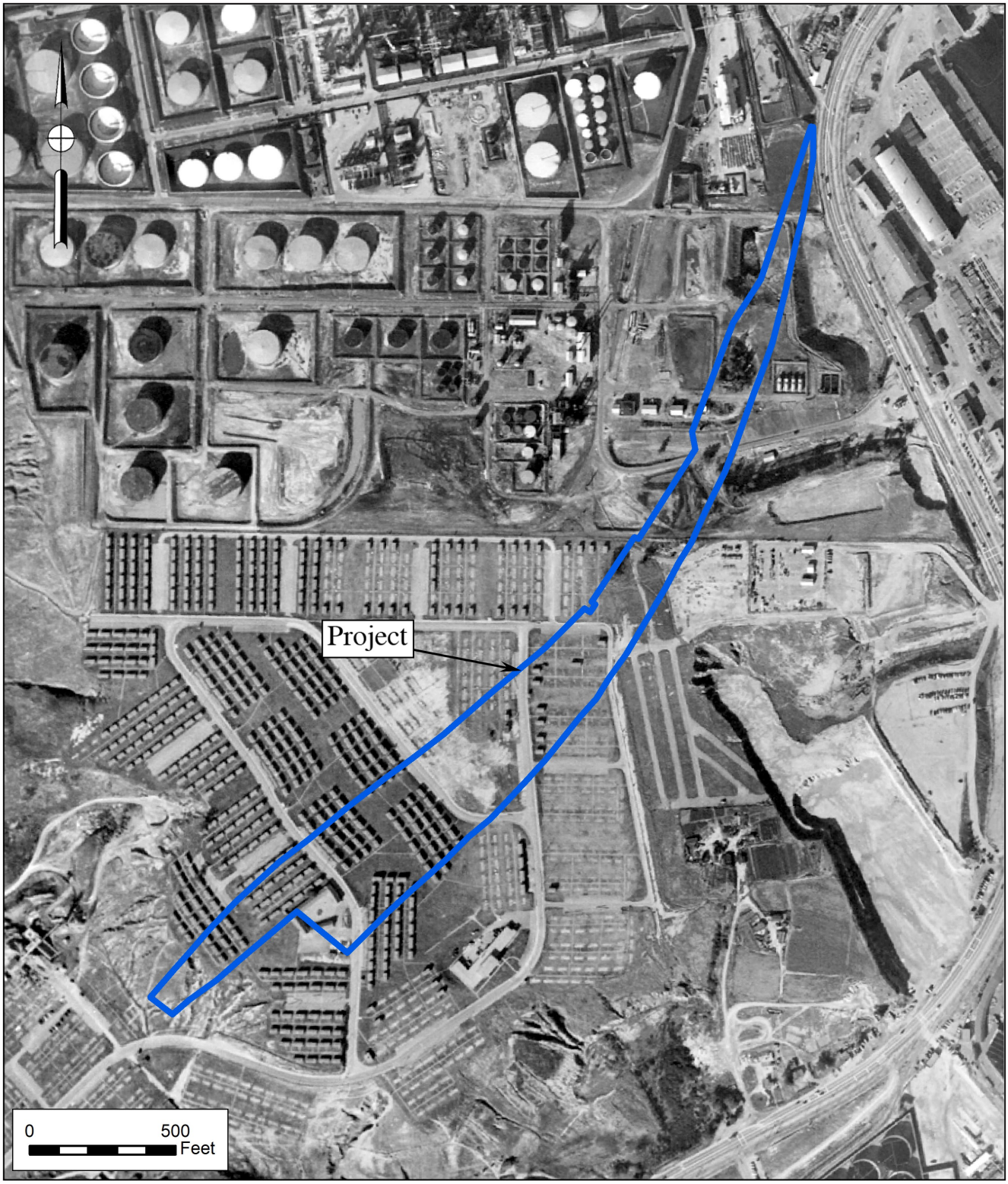
The Port of Los Angeles Truck Lot Project

USGS *Torrance* Quadrangle (7.5-minute series)



BFSA Environmental Services
A Perennial Company

Figure 2.0–3
Conceptual Site Plan
The Port of Los Angeles Truck Lot Project

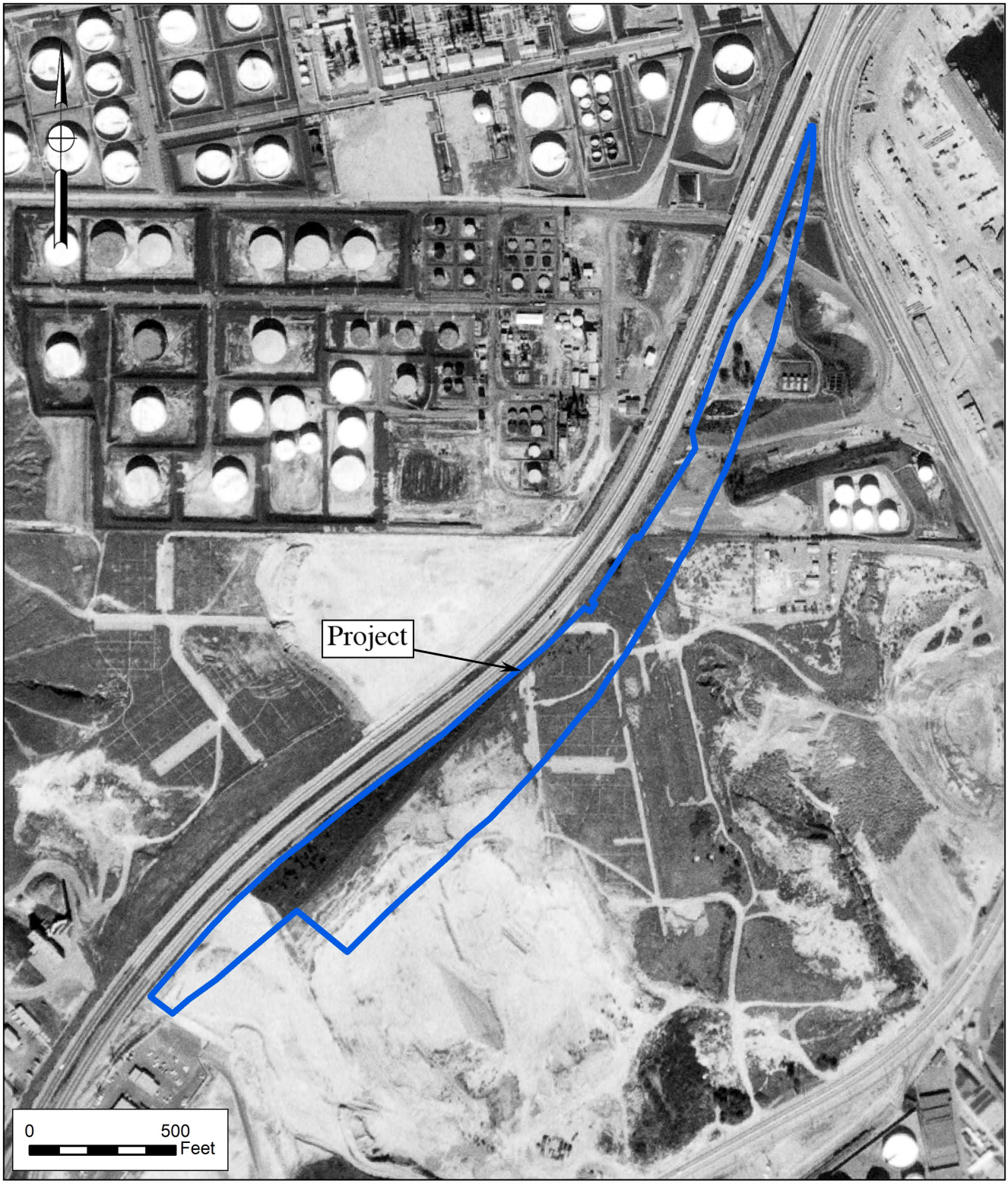


BFSA Environmental Services
A Perennial Company

Figure 2.0–4

1952 Historic Aerial Photograph

The Port of Los Angeles Truck Lot Project

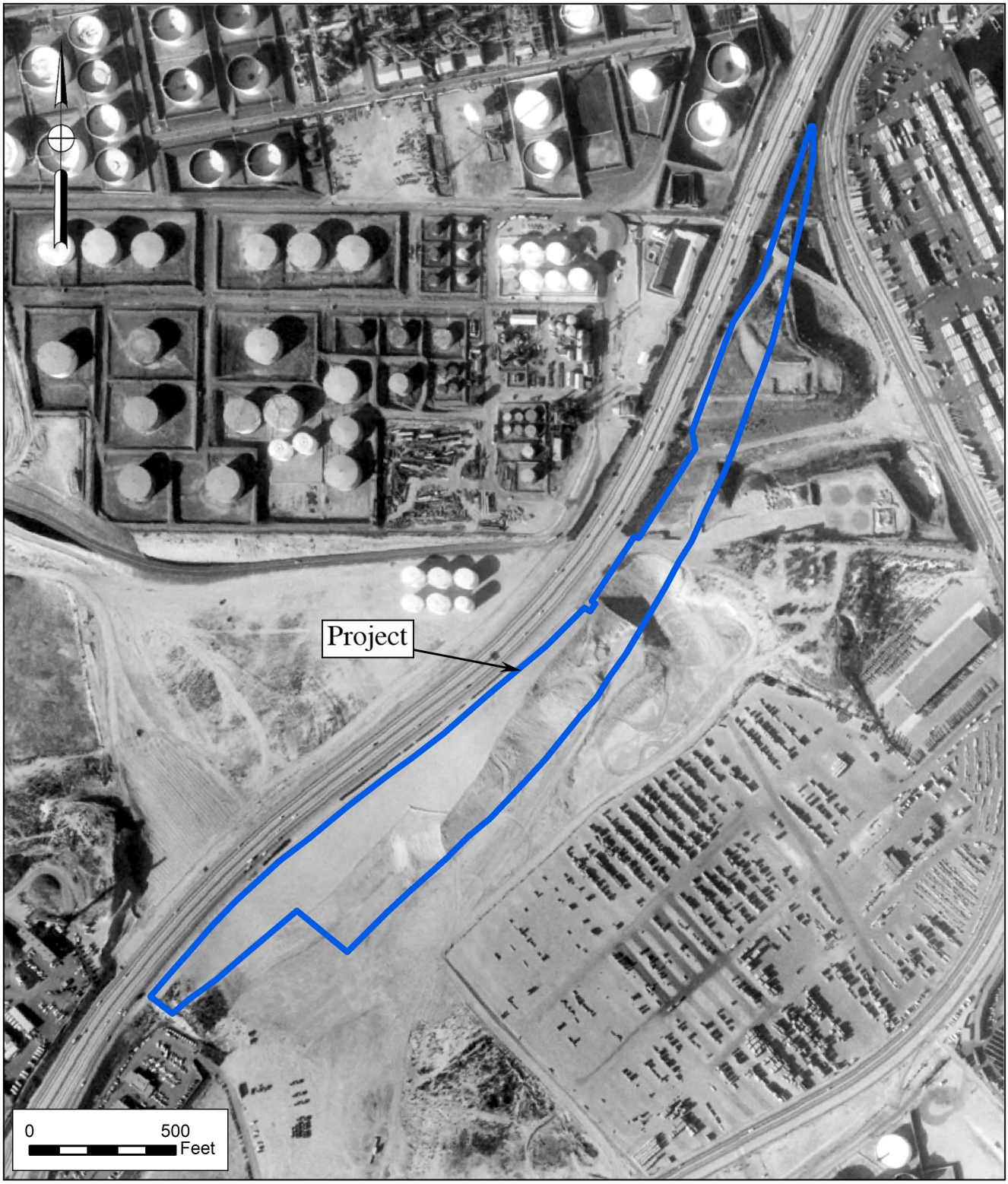


BFSA Environmental Services
A Perennial Company

Figure 2.0–5

1963 Historic Aerial Photograph

The Port of Los Angeles Truck Lot Project



BFSA Environmental Services
A Perennial Company

Figure 2.0–6
1972 Historic Aerial Photograph
The Port of Los Angeles Truck Lot Project

Because no prehistoric features or significant deposits were identified during the study, the likelihood for significant archaeological deposits associated with the proposed development is low. No site-specific mitigation measures are recommended since the deposit is evaluated as not CEQA significant, is not considered a Historical Resource, and is not eligible for designation on the CRHR; however, construction monitoring will be necessary because the potential still exists that historic or prehistoric features or deposits could be encountered during grading.

Tracy A. Stropes and Jillian L.H. Conroy prepared the technical report and report graphics and Cecelia Liefeld conducted technical editing and report production. Qualifications of key personnel are provided in Appendix A.

3.0 SETTING

The project setting includes both the physical and biological contexts of the proposed project, as well as the cultural setting of prehistoric and historic human activities in the general area. Provided below is a discussion of both the environmental and cultural settings of the study area.

3.1 Environmental Setting

The proposed project is located within the Los Angeles Basin which comprises more than 800 square miles extending from Cahuenga Peak south to the Pacific coast, and from Topanga Canyon southeast to the Aliso Creek region. The highest elevation within the project area reaches approximately 65 feet above mean sea level (AMSL). The geological deposits directly surrounding the project area consist of Holocene-age, near-shore, marine and non-marine deposits, including, tidal flat, lagoon, beach, estuary, shallow-water bay sediments, and shoreline terrace deposits. In several places surrounding the project area, these younger alluvial deposits are overlain by artificial fill materials associated with impacts from the historic development of the Port (Dibblee et al. 1999). However, the geological deposits within the project area and along John S. Gibson Boulevard, are underlain by Quaternary alluvium, Quaternary older alluvium, and Pleistocene-age offshore marine deposits of San Pedro Sand. The San Pedro Sand was deposited during the middle Pleistocene and dates to approximately 500,000 to 200,000 years ago (Kirby and Demere 2007).

Prior to the modern development of the Harbor, Los Angeles Harbor was historically a low-lying coastal marsh referred to as Wilmington Lagoon. Prehistorically the lagoon would have supported a complex network of estuaries, stream channels, tidal channels, sand spits, beaches, and marshy inlands providing a wide range of resources for the prehistoric inhabitants of the region (Schell et al. 2003). As a result of the Altithermal (circa 11,000 years ago) sea level began to rise modifying drainage patterns and resource availability in the region. Prior to modern development, the dominant vegetation community in the project area would have likely consisted of coastal saltmarsh communities including glasswort (Salicornia virginica) and cordgrass (Spartina foliosa) (Kuchler 1977). At the time of this study, the proposed project area was covered in ruderal and ornamental vegetation.

3.2 Cultural Setting

3.2.1 Prehistoric Period

Several prehistoric cultural chronologies have been proposed for the southern California coast and nearby inland areas, such as two of the most frequently cited sequences developed by William Wallace (1955) and Claude Warren (1968). Such chronologies provide a framework to discuss archaeological data in relation to broad cultural changes seen in the archaeological record. The chronological sequence presented herein represents an updated synthesis of these schemes for

the Los Angeles County and surrounding regions which includes Santa Catalina Island. The prehistoric sequence of the area can be divided into four broad temporal categories, as is discussed below. It should be noted that the prehistoric chronology for the region is being refined on a continuing basis, with new discoveries and improvements being made as the accuracy of dating techniques improves.

Terminal Pleistocene and Early Holocene: Paleo-Coastal Period (circa 9500 to 7000/6500 B.C.)

Although data on early human occupation for the southern California coast is limited, archaeological evidence from the northern Channel Islands suggests initial settlement in the region at least 12,000 years before the present (YBP). At Daisy Cave (SMI-261) on San Miguel Island, radiocarbon dates indicate an early period of use in the terminal Pleistocene, sometime between 9600 and 9000 calibrated (cal) B.C. (Erlandson et al. 1996). On nearby Santa Rosa Island, human remains from the Arlington Springs Site (SRI-1730) have been dated between 11,000 and 10,000 cal B.C. (Johnson et al. 2002). Santa Catalina Island was occupied at least 7,000 years ago. A radiocarbon date obtained from the Little Harbor Site (SCaI-17) produced a date of 7,700 YBP (Erlandson 1994). Archaeological data recovered from these and other coastal Paleo Indian sites indicate a distinctively maritime cultural adaptation termed the "Paleo-Coastal Tradition" (Moratto 1984), which involved the use of seafaring technology and a subsistence regime focused upon shellfish gathering and fishing (Rick et al. 2001).

Relatively few sites have been identified in Los Angeles County that date to the terminal Pleistocene and early Holocene. Evidence of possible early human occupation has been found at the sand dune bluff site of Malaga Cove (LAN-138), located between Redondo Beach and Palos Verdes (Walker 1951). Researchers have proposed that archaeological remains recovered from the lowermost cultural stratum at the site, including shell, animal bone, and chipped stone tools, may date to as early as 8000 cal B.C. (Moratto 1984:168; Wallace 1986).

Middle Holocene: Milling Stone Period (circa 7000/6500 to 1500/1000 B.C.)

The Milling Stone Period or Horizon, also referred to as the "Encinitas Tradition," is the earliest well established coastal cultural occupation in the region (Sutton 2010; Sutton and Gardner 2010). The onset of this period, which began sometime between 7000 and 6500 cal B.C., is marked by the expansion of populations throughout southern California. Regional variations in technology, settlement patterns, and mortuary practices among Milling Stone sites have led researchers to define several local manifestations or "patterns" of the tradition (Sutton and Gardner 2010). Groups that occupied modern-day Los Angeles County are thought to have been relatively small and highly mobile during this time, with a general subsistence economy focused upon the gathering of shellfish and plant foods, particularly hard seeds, with hunting being of less importance (Glassow et al. 2007).

Two temporal subdivisions have been defined for the portion of the Topanga Pattern falling within the Milling Stone Period: Topanga I (circa 6500 to 3000 B.C.) and Topanga II (circa 3000 to 1000 B.C.) (Sutton and Gardner 2010). Topanga I assemblages are characterized by abundant manos and metates, core tools and scrapers, charmstones, cogged stone, and discoidals. Projectile points are quite rare, with those present resembling earlier, large, leaf-shaped forms (Glassow et al. 2007). Secondary inhumations with associated cairns are the most common burial form at Milling Stone sites, with small numbers of identified extended inhumations. The subsequent Topanga II phase largely represents a continuation of the Topanga Pattern with site assemblages characterized by numerous manos and metates, charmstones, cogged stones, discoidals, and some stone balls. A significant technological change in ground stone occurs during this period, with the appearance of mortars and pestles at Topanga II sites, which suggests the adoption of balanophagy by coastal populations (Sutton and Gardner 2010). The quantity of projectile points also notably increases in Topanga II site deposits, indicating that hunting large game may have played a greater role in the subsistence economy than previously. While secondary burials continued to be quite common, a few flexed inhumations have also been recovered from archaeological contexts dating to the Topanga II phase.

Several Milling Stone sites have been identified in Los Angeles County. More radiocarbon dates from the midden at SCaI-17, reported at 6400 cal BP (Erlandson 1994) and 3,880 ± 280 BP (Meighan 1959), show occupation of the site during the Milling Stone Period. The lower component of the Tank Site (LAN-1), located in the Santa Monica Mountains, was excavated in the 1940s and was determined to be Topanga I in age. In the San Fernando Valley, the Encino Site (LAN-111) is thought to have contained a Topanga I component as it contained many milling implements, but few projectile points. The presence of mortars, pestles, and stemmed projectile points at the Chatsworth Site (LAN-21), located at the western edge of the San Fernando Valley, suggests a Topanga II presence. The Big Tujunga Wash Site (LAN-167), located at the eastern edge of the San Fernando Valley, may have also contained a Topanga II component (Sutton and Gardner 2010).

Late Holocene: Intermediate Period (1500/1000 B.C. to A.D. 750)

The Intermediate Period, which encompasses the early portion of the "Del Rey Tradition," as defined by Sutton (2010), begins circa 3,500 YBP. During this time, significant changes are seen throughout the coastal areas of southern California in material culture, settlement systems, subsistence strategies, and mortuary practices. These new cultural traits have been attributed to the arrival of Takic-speaking people from the southern San Joaquin Valley (Sutton 2009). Biological, archaeological, and linguistic data indicates that the Takic groups who settled in the Los Angeles Basin were ethnically distinct from the preexisting Hokan-speaking Topanga populations and are believed to be ancestral to ethnographic Gabrielino groups (Sutton 2009). While archaeological evidence indicates that "relic" Topanga III populations continued to survive in isolation in the Santa Monica Mountains, these indigenous groups appear to have been largely

replaced or absorbed by the Gabrielino, or Chumash, by 2,000 YBP (Sutton and Gardner 2010:17). Intermediate Period sites in the region are represented by the "Angeles Pattern" of the Del Rey Tradition (Sutton 2010). Three temporal subdivisions have been defined for the portion of the Angeles Pattern that falls within the Intermediate Period: Angeles I (1500 to 600 B.C.), Angeles II (600 B.C. to A.D. 400), and Angeles III (A.D. 400 to 750) (Sutton and Gardner 2010:8).

The onset of Angeles I is characterized by the increase and aggregation of regional populations and the appearance of the first village settlements. The prevalence of projectile points, single-piece shell fishhooks, and bone harpoon points at Angeles I sites suggests a subsistence shift in the Intermediate Period, an increased emphasis upon fishing and terrestrial hunting, and less reliance upon the gathering of shellfish resources. Regional trade or interaction networks also appear to have developed at that time, with coastal populations in Los Angeles County obtaining small steatite artifacts and *Olivella* sp. shell beads from the southern Channel Islands and obsidian from the Coso Volcanic Field (Koerper et al. 2002). Marked changes are seen in mortuary practices during Angeles I with flexed primary inhumations and cremations replacing extended inhumations and cairns.

Angeles II largely represents the continuation and elaboration of Angeles I technology, settlement, and subsistence systems. One exception to this pattern is the introduction of a new funerary complex circa 2,600 YBP, consisting of large rock cairns or platforms containing abundant broken tools, faunal remains, and cremated human bone. These mortuary features have generally been thought to represent the predecessor of the Southern California Mourning Ceremony (Sutton 2010:14).

Several important changes in the archaeological record mark the beginning of Angeles III. At this time, larger seasonal villages characterized by well-developed middens and cemeteries were established along the coast or in the inland areas. Archaeological data from Angeles III sites indicates that residents of these settlements practiced a diverse subsistence strategy, which included the exploitation of both marine and terrestrial resources (Sutton 2010:16). Notable technological changes at this time included the introduction of the plank canoe and the bow and arrow (Glassow et al. 2007:203–204). The appearance of new *Olivella* sp. bead types at Angeles III sites indicates a reconfiguration of existing regional exchange networks with increased interaction among populations in the Gulf of California (Koerper et al. 2002). Finally, cremations increase slightly in frequency at this time, with inhumations no longer placed in an extended position (Sutton 2010:18). Intermediate Period sites in Los Angeles County include LAN-2 and LAN-197, which are located in the Santa Monica Mountains. The formal cemeteries at these sites are representative of the increased sedentism that occurred during the Intermediate Period (Glassow et al. 2007:202).

Late Holocene: Late Period (A.D. 750 to Spanish Contact)

The Late Period dates from approximately A.D. 750 until Spanish contact in 1542. Sutton (2010) has divided this period, which falls within the larger Del Rey Tradition, into two phases: Angeles IV (A.D. 750 to 1200) and Angeles V (A.D. 1200 to 1550). Angeles IV is characterized by the continued growth of regional populations and the development of large, sedentary villages. Although chiefdoms appear to have developed in the northern Channel Islands and the Santa Barbara region after 850 YBP (Arnold 1992; Gamble 2005), little direct evidence has been found to suggest that this level of social complexity existed in the Los Angeles area during the Late Prehistoric Period (Sutton 2010).

Several new types of material culture appear during Angeles IV, including Cottonwood series points, birdstone and "spike" effigies, *Olivella* sp. cupped beads, and *Mytilus* sp. shell disc beads. The presence of southwestern pottery, Patayan ceramic figurines, and Hohokam shell bracelets at Angeles IV sites suggests some interaction between groups in southern California and the Southwest. Notable changes are seen in regional exchange networks after 800 YBP, with an increase in the number and size of steatite artifacts, including large vessels, elaborate effigies, and comals (cooking dishes) recovered from Angeles V sites. The presence of these artifacts suggests a strengthening of trade ties between coastal Los Angeles populations and the southern Channel Islands (Koerper et al. 2002:69). Late Period mortuary practices remain largely unchanged from the Intermediate Period, with flexed primary inhumations continuing to be the preferred burial method.

Late Period sites in Los Angeles County include LAN-227 and LAN-229, which are located in the Santa Monica Mountains. Both sites contain fewer manos and metates than earlier sites, but more mortars, pestles, projectile points, drills, beads, pipes, and bone tools (Moratto 1984:141). Although these sites represent a move toward centralized sedentary villages during this period, it is unclear whether they represent year-round occupation or semi-permanent villages used as base settlements (Glassow et al. 2007:210). By the Late Period, a distinct subgroup of Gabrielino permanently lived on Santa Catalina Island. Although it is believed they lived similarly to those on the mainland, remains from inland habitation sites confirm that island subsistence relied more heavily upon marine rather than terrestrial resources (Rosenthal et al. 1988; Strudwick et al. 2008).

Late Holocene / Protohistoric Period / The Gabrielino (1769 to Present)

During the late Holocene, population size and density dramatically increased, calling for an even more diversified economy (Altschul and Grenda 2002). Ethnographic data, the first of which came from Spanish explorers and missionaries, indicates that the Gabrielino (Tongva) were the major tribe established in the San Gabriel Valley. The Spanish attributed this name to the Native Americans in the area served by the Mission San Gabriel Arcángel. Gabrielino territory included the watersheds of the San Gabriel, Santa Ana, and Los Angeles rivers, portions of the Santa Monica and Santa Ana mountains, the Los Angeles Basin, the coast from Aliso Creek to

Topanga Creek, and San Clemente, San Nicolas, and Santa Catalina islands (Moratto 1984). The Gabrielino spoke a Cupan language that was part of the Shoshonean or Takic family of Uto-Aztecan linguistic stock; these linguistic ties united a dispersed ethnic group occupying 1,500 square miles in the Los Angeles Basin region (Altschul and Grenda 2002). Interestingly, this language stock was different from that of the Chumash to the north in the Santa Barbara region, as well as from the Kumeyaay (Tipai and Ipai) in the San Diego region, both of which spoke languages of the Hokan stock, using different dialects.

At the time of European contact, the Gabrielino, second only to the Chumash, were the wealthiest, most populous, and most powerful ethnic group in southern California (Bean and Smith 1978; Moratto 1984). Ethnographic data states that the Gabrielino were hunters and gatherers whose food sources included acorns, seeds, marine mollusks, fish, and mammals. Archaeological sites support this data, with evidence of hunting, gathering, processing, and storage implements including arrow points, fishhooks, scrapers, grinding stones, and basketry awls (Altschul and Grenda 2002). About 50 to 100 permanent villages are estimated to have been in existence throughout their territory at the time of European contact, most of which were located along lowland rivers and streams, as well as along sheltered areas of the coast (Moratto 1984). Smaller satellite villages and resource extraction sites were located between larger villages. Village sites contained varying types of structures, including houses, sweathouses, and ceremonial huts (Bean and Smith 1978). Artistic items included carvings, painting, steatite, baskets and shell set in asphaltum (Moratto 1984). Settlements were often located at the intersection of two or more ecozones, thus increasing the variety of resources that were immediately accessible (Moratto 1984).

Santa Catalina Island provided a valuable source of steatite for the Gabrielino, which they quarried and traded to other groups (Heizer and Treganza 1972; Moratto 1984). Offshore fishing, hunting, and transport from the island to the mainland were accomplished with the use of plank boats, while shellfish and birds were collected along the coast (Hudson et al. 1978). The main ethnographic Gabrielino village on Santa Catalina Island was Pimu (McCawley 1996). At the time of European contact, there were two or three distinct population centers on the island identified by winter villages at Isthmus, Avalon, and possibly Little Harbor; however, there were noted settlements at Toyon, Whites Landing, Empire Landing, and Johnson's Landing (Hudson et al. 1978; County of Los Angeles 1983). Winter was spent at the main village, while summer camps were situated along the coast in large coves, on flats found in the canyons, or on ridges that divided the canyons. Smaller temporary camps existed near natural resources, including food, water, and soapstone (County of Los Angeles 1983). Mission records show that inter-island marriage between the inhabitants of Santa Catalina, San Clemente, Santa Rosa, and Santa Cruz islands regularly occurred (McCawley 2002).

As with other Native American populations in southern California, the arrival of the Spanish drastically changed life for the Gabrielino. Incorporation into the mission system disrupted their culture and changed their subsistence practices (Altschul and Grenda 2002). Ranchos were established throughout the area, often in major drainages where Native American villages tended to be located. By the early 1800s, Mission San Gabriel Arcángel had expanded its holdings for grazing to include much of the former Gabrielino territory (Altschul and Grenda 2002). Eventually, widespread relocation of Native American groups occurred, resulting in further disruption of the native lifeways. The Gabrielino residing on Santa Catalina Island were brought to Los Angeles in the early 1800s as disease began to decimate the island population (Pedersen 2004; Strudwick 2008). Together with the introduction of Euro-American diseases, the Gabrielino and other southern California groups experienced more drastic population declines; in the early 1860s, the smallpox epidemic nearly wiped out the remaining Gabrielino population (Moratto 1984). While people of Gabrielino descent still live in the Los Angeles area, the Gabrielino were no longer listed as a culturally identifiable group in the 1900 Federal Census (Bean and Smith 1978; Moratto 1984).

3.2.2 Historic Period

The historical background of the project area began with the Spanish colonization of Alta California. Juan Rodriguez Cabrillo discovered Santa Catalina Island on October 7, 1542. Originally, he believed it to be two islands, separated by the Isthmus, and named them San Salvador and La Vitoria (Hanna 1951; Hoover et al. 1962; Gudde 1998). In 1602/1603, Sebastian Vizcaíno visited the island while mapping the California coast and renamed it St. Catherine (Hanna 1951; Hoover et al. 1962; Gudde 1998).

The historic background of the project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region (Brigandi 1998). As a result, by the late eighteenth century, a large portion of southern California was overseen by Mission San Luis Rey (San Diego County), Mission San Juan Capistrano (Orange County), and Mission San Gabriel Arcángel (Los Angeles County), who began colonizing the region and surrounding areas (Chapman 1921).

Each mission gained power through the support of a large, subjugated Native American workforce. As the missions grew, livestock holdings increased and became increasingly vulnerable to theft. To protect their interests, the southern California missions began to expand inland to try and provide additional security (Beattie and Beattie 1939; Caughey 1970). The Spaniards embarked upon a formal expedition in 1806 to find potential locations within what is now the San Bernardino Valley to meet their security needs. As a result, by 1810, Father Francisco Dumetz of Mission San Gabriel had succeeded in establishing a religious site, or capilla, at a Cahuilla rancheria called Guachama (Beattie and Beattie 1939). San Bernardino Valley received

its name from this site, which was dedicated to San Bernardino de Siena by Father Dumetz. The Guachama rancheria was located in present-day Bryn Mawr in San Bernardino County.

These early colonization efforts were followed by the establishment of estancias at Puente (circa 1816) and San Bernardino (circa 1819) near Guachama (Beattie and Beattie 1939). These efforts were soon mirrored by the Spaniards from Mission San Luis Rey, who in turn established a presence in what is now Lake Elsinore, Temecula, and Murrieta (Chapman 1921). The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions (Pourade 1961). Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order (Cook 1976).

On September 8, 1771, Father Pedro Cambón and Father Angel Somera established Mission San Gabriel Arcángel near the present-day city of Montebello. In 1775, the mission was moved to its current location in San Gabriel due to better agricultural lands. This mission marked the first sustained European occupation of the Los Angeles County area. Mission San Gabriel Arcángel, despite a slow start, partially due to misconduct by Spanish soldiers, eventually became so prosperous that it was known as "The Queen of the Missions" (Johnson et al. 1972).

The pueblo that eventually became the city of Los Angeles was established in 1781. During this period, Spain also deeded ranchos to prominent citizens and soldiers (though very few in comparison to the later Mexican Period). One such rancho, Rancho San Pedro, was deeded to soldier Juan Jose Dominguez in 1784 and comprised 75,000 acres, encompassing the modern South Bay region from the Los Angeles River on the east to the Pacific Ocean on the west.

The area that became Los Angeles County saw an increase in European settlement during the Mexican Period, largely due to the many land grants (ranchos) made to Mexican citizens by various governors. The period ended in early January 1847, when Mexican forces fought the combined United States Army and Navy forces in the Battle of the San Gabriel River on January 8, 1847, and the Battle of La Mesa on January 9, 1847 (Nevin 1978). On January 10, 1847, leaders of the Pueblo of Los Angeles peacefully surrendered after Mexican General Jose Maria Flores withdrew his forces. Shortly thereafter, the newly appointed Mexican Military Commander of California, Andrés Pico, surrendered all of Alta California to United States Army Lieutenant Colonel John C. Fremont in the Treaty of Cahuenga (Nevin 1978).

The increase in the population of southern California during the 1880s further increased the significance of the Port at San Pedro (Silka 1993) in concert with improvements to rail transportation. As a result of the population expansion of Los Angeles, the demand for more construction materials and general supplies grew exponentially. Naturally, this resulted in the continued use and further expansion of the Port at San Pedro. San Pedro itself was incorporated in 1888 and remained economically resilient because of the harbor, avoiding the depression that was to come. By 1899 the construction of a two-mile-long breakwater began, resulting in even further expansion of the population. San Pedro at the time did not have the tax base needed for the millions of dollars of bonds that were required to fund the project, and as a result, the California

legislature consolidated San Pedro with Los Angeles in 1909 to accommodate the project. As a result, San Pedro became a district of the City of Los Angeles (Silka 1993).

World War I resulted in dramatic changes to the uses of the port itself as the United States Navy took over a portion of the harbor for a submarine base and general training. This also helped the Navy to establish a significant presence on the Pacific coast. In response to the war effort, shipbuilding enterprises skyrocketed, manufacturing vessels in large numbers. By 1917, a vast railroad network had been constructed around the harbor allowing for the greater ease of movement of goods out of the port and across the country (San Buenaventura Research Associates 1992). As World War I ended in 1918, the continued influx of immigrants and population expansion of the region drove the demand for lumber to satisfy raw material needs for housing and factories (Matson 1920). Lumber became the primary import of the time and not surprisingly, crude oil quickly became the primary export.

With the involvement of the U.S. in World War II, San Pedro Harbor became of central importance as one of the closest ports to the Pacific Theatre of Operations. Between 1941 and 1945, ship and aircraft production facilities in the harbor area produced more than 15 million tons of war equipment (Shettle 2003). However, by the end of the war, once the Navy had relinquished control of the harbor post World War II, the LAHD sought to improve several of its buildings and removed many temporary wartime buildings (Queenan 1983). These included the Western Terrace housing units, a housing project for war workers during World War II that overlapped a portion of the current project area. As a result of the postwar population explosion, developers began building homes in tracts along the Palisades, just south of 9th Street and on the north side of town, respectively. Unlike their predecessors, these new residents were moving to San Pedro not for employment but for a desirable community (Silka 1993). During the following decades, the port district fell into urban decay and became an area of unsavory reputation. However, in 1969, the Los Angeles City Council approved the Beacon Street Redevelopment Project, and the demolition of the area's buildings soon followed.

4.0 RESEARCH DESIGN

The primary goal of the research design is to attempt to understand the way in which humans have used the land and resources within the project area through time, as well as aid in the determination of resource significance. For the current project, the area under investigation is Site CA-LAN-150 in Los Angeles County. As people used this area, evidence of their activities has been preserved on and in the ground. Archaeological methods are used to retrieve and analyze portions of this evidence to reconstruct past lifeways. The testing program for CA-LAN-150 at the Port of Los Angeles Truck Lot Project will include test excavations consisting of mapping any features encountered, artifacts located on the surface of the site, and locations of subsurface archaeological tests to be conducted (as outlined in Section 5.0).

Primary objectives, such as the determination of the boundaries of any discoveries, depth of any archaeological deposits, stratigraphy, integrity, content, and spatial distribution of any subsurface artifacts and cultural ecofacts, is essential to the archaeological test phase of the project. Normally, a research orientation transcends these goals by expanding the meaning of information extracted from a site using archaeological questions salient in current scientific research. Regional and temporal research issues should be taken into consideration when posing such questions. However, because the boundary of buried intact cultural resources is uncertain, the research design for the current project is limited in scope. The topics and associated research questions provided below address concerns specific to the project.

The orientation developed for the research design for the Archaeological Treatment Plan employs regional and locally specific questions and identifies data needs to approach focused archaeological research questions. For the research design, many of the research questions overlap as they address environmental setting and prehistoric occupation patterns. Although a wide range of research questions may be possible for investigations within the San Pedro Bay region, the primary research areas selected for the ATP are based upon the potential of available data to address these questions, and possible overall contributions to the archaeological record.

The specific research questions focus upon chronology, lithic technology, settlement patterning, and subsistence strategy. The goal of the testing program is to determine if data from Site CA-LAN-150 can possibly contribute to the proposed research questions to reflect the settlement of the San Pedro Bay area. The research topics listed below will be used to guide the study and to determine the sample size necessary to provide sufficient materials to address these research questions.

Chronology

What was the period(s) of use and/or occupation for Site CA-LAN-150? Is there evidence of multiple periods of occupation at Site CA-LAN-150 and can they be identified through radiocarbon analysis? Temporally, how does this site fit into the overall pattern for San Pedro Bay? That is, what group or culture is being examined in the context of the known culture history, and is it possible to differentiate between periods of occupation(s)?

Determining the period(s) of occupation of a site or region can be accomplished using radiocarbon dating and relative dating techniques. Radiocarbon dating depends upon the retrieval of dateable materials such as bone or shell. In contrast, relative dating is based upon the recovery of specific artifacts that are temporally diagnostic, such as atlatl dart points, arrow points, and ceramics. Stratigraphic analyses, obsidian sourcing, and hydration rind measurements may also serve as relative dating measures. The combination of both radiocarbon measures and relative dating observations helps to provide a greater chronological picture for any given site. In addition, this research helps to delineate (where possible) divisions between Late Prehistoric and Early Archaic occupation. Finally, further chronological analyses may also reveal if the site may be better understood synchronically, diachronically, or both. However, to address the posed research questions, a more accurate temporal placement of the site will be necessary.

Study Topics

1. Can multiple periods of occupation be determined through chronological analysis of Site CA-LAN-150?
2. Does the chronological data suggest longer periods of occupation during the Late Prehistoric Period or the Early Archaic Period?
3. Where does Site CA-LAN-150 place chronologically in the overall pattern for sites in the San Pedro Bay region and southern California in general?
4. How do temporally diagnostic artifacts from Site CA-LAN-150 compare to C-14 data, and does the data suggest stratigraphic mixing of the assemblage?

Data Needs

Previous work at Site CA-LAN-150 indicates that, at a minimum, shell is present within the assemblage. Therefore, materials will be selected for radiocarbon dating based upon context and quality. If the recovered data permits, relative dating may be possible using point types, shell bead typologies, and obsidian analysis. If obsidian is present in the collection, samples may be tested for hydration values that can be used to relatively date the site by using comparable hydration rates.

Lithic Technology

Which technological lithic trajectories were employed by the prehistoric inhabitants of Site CA-LAN-150? Which lithic reduction strategies were in use and when? What role did milling technology play at Site CA-LAN-150 if any? Is there notable variation in observable lithic technologies?

Several flake tool reduction strategies have been identified for the southern California coastal region. These strategies include biface reduction, split-nodule core reduction, small blade core reduction, bipolar core reduction, and nodule reduction. The decision to use one or the other of these techniques was dependent upon several factors, the most important of which being the type of material being worked, the morphology of the parent material, and the intended tool. For example, some lithic materials such as Monterey chert are more easily worked and can become some of the best knappable material in the western United States. Problems exist, however, in the form of the material in its raw state. Monterey chert occurs in small cobbles and in layers. For small cobbles, bipolar reduction would be the most efficient method of producing usable flakes. For the layered Monterey chert, biface reduction was the most expedient method of producing tools, as the layers were already thin and only the outer perimeter needed to be worked (Cooley 1982). Other chert sources in southern California need to be identified and the material chemically characterized.

Large biface production and reduction requires pieces of material large enough to be reduced and homogeneous enough to produce workable items, such as readily available volcanics. Nodule core reduction comprises numerous techniques with specific trajectories such as pyramidal-shaped, split-nodule core reduction (used to produce thick, contracting flakes for flake tools), the production of teshoa flakes for large flake tools, and nodule core tools where the parent material becomes the tool. Cobble layers found in streambeds, across coastal terraces, and along the coast provided materials for these reduction sequences. Nodule core reduction is known in southern California archaeological literature as "cobble core reduction" (Gallegos et al. 2002, 2003). The term "nodule" was substituted for "cobble" because a cobble is geologically defined as a size clast (64 to 256 millimeters). Many prehistoric core and core-based artifacts (such as some battered implements) were manufactured from boulders (greater than 256 millimeters) and, to a lesser extent, pebbles (four to 64 millimeters). The term "nodule" was selected because nodules as a class are not size-specific and tend to be rounded to subrounded.

For coastal southern California, nodule core reduction technology is the most common core technology identified in archaeological sites that range from the early Holocene to historic contact with native peoples (Stropes 2007). In addition, products of nodule core reduction are some of the most abundant tool forms identified in assemblages throughout the region. This simple and expedient technology may have been so commonly employed because it provided a simple and relatively effortless way to produce useful flakes and flake blanks intended for immediate use or further reduction into a wide range of tool forms. Effort is defined in reference to the lithic

technology described herein as the amount of energy needed to reduce stone into a viable product. Because of the local abundance of metavolcanic materials in nodule form, there was little need for more material-efficient, and consequently more time-consuming, technology.

Prehistorically, the use of ground stone implements (*i.e.,* manos, metates, and pestles) is common throughout southern California archaeology sites. However, when viewed chronologically, many researchers have suggested that lithic milling equipment was either absent or rare in assemblages identified as belonging to the Paleo Indian Period (Chartkoff and Chartkoff 1984; Moratto 1984; Moriarty 1966; Rogers 1939), suggesting a greater reliance upon food packages that required minimal milling-based processing for consumption. In contrast, some believe that a lack of milling at Paleo Indian Period sites reflects site use patterning rather than the absence of milling technology for the time period. The analysis of debitage and tools from habitation sites can provide information regarding manufacture, use, and rejuvenation of ground stone, if present. In addition, variation in resource exploitation and changes in site function should be analyzed to determine if ground stone tools were designed for specific functions (*i.e.,* mortar and pestle use for acorn processing) and if technological changes in milling equipment occurred through time as climate and resources changed.

Preliminary work at Site CA-LAN-150 has indicated the presence of flaked lithic materials. With this knowledge, it can be predicted that the recovery from Site CA-LAN-150 may provide enough data to characterize the general lithic trajectories present. Therefore, the following study topics will be addressed.

Study Topics

1. Which technological reduction strategies are present based upon a technological analysis of flaked stone at the property?
2. Which reduction strategies were used to produce which tools? Were these strategies the same or different?
3. Is there variation between flake-based tool kits at sites where shellfish processing is the dominant activity and sites focused upon other subsistence activities from the same time period?
4. How do the technologies identified at Site CA-LAN-150 and the stages of tool reduction relate to site function and tools recovered at the site?
5. Were the prehistoric lithic tools present within the property manufactured on-site or at another location?
6. Have specific lithic reduction techniques changed through time at Site CA-LAN-150? What function did milling technologies serve at Site CA-LAN-150?

Data Needs

Preliminary work has indicated that Site CA-LAN-150 contains flaked lithics. Therefore, all lithic materials recovered from Site CA-LAN-150 will be selected for technological analysis based upon replicative data. To address the proposed research questions, the following will be required:

- Collection of an appropriate sample of cores, tools, and debitage;
- Technologically-based analysis of cores, tools, debitage, and milling equipment; and
- Identification of the technological attributes and reduction sequences used to produce the tools.

Settlement and Subsistence

Which settlement and subsistence patterns can be identified at Site CA-LAN-150 and have these patterns changed over time? Did the pattern of shellfish collection change over time? If so, what influenced the changes: environmental change, population change, technological change, or a combination of these factors? If this site is representative of a continuously occupied habitation site, how does this site relate to other sites such as base camps, special-use sites, or extractive sites? How did occupation and use of this site contribute to seasonal or year-round occupation of the region in general?

Traditionally, sites such as prehistoric habitation sites are archaeologically differentiated from specialized function sites (*i.e.,* quarries, shellfish processing sites, and milling stations) by the range of materials identified in the assemblage. In addition, there is also a notable amount of variability between habitation sites as a group with regards to site size, artifact density, and diversity of material culture. This observed variation may relate to differences in the quantity of people who occupied a given site, the duration of a site occupation, the frequency with which a site was reused, and the range of activities performed at the site. Identifying such variations in site patterning may help to facilitate the reconstruction of prehistoric social organization and economic adaptations to environmental change.

Seasonal site use at Site CA-LAN-150 is implicit in the availability of fresh water only during the rainy season (winter). However, the attraction of the marine resource may have been strongest during the summer months due to the seasonal availability of preferred resources (Jochim 1976). Seasonality of coastal sites may be determined in the analysis of fish otoliths, which provide information regarding the season of capture, and hence, the season of site occupation, and in the analysis of nearshore versus offshore fish within the assemblage. For instance, if a fish species is identified that is seasonally sensitive and available near the shore only during a certain period, but the otolith analysis indicates that the fish was captured during a season when it would not normally have been present nearshore, though present offshore, then not only is seasonality

addressed, but other activities, including seagoing vessel construction and deep-water fishing, must also be considered. If sufficient vertebrate and invertebrate faunal remains are recovered due to the testing program, the proposed recovery should provide enough data to characterize the general subsistence and settlement pattern of Site CA-LAN-150. Therefore, the following study topics will be addressed as part of the Phase II testing program.

Study Topics

1. Does Site CA-LAN-150 represent a specific time period and, if so, is environmental change, and changes in resource exploitation over time, reflected in the faunal assemblage?
2. Does Site CA-LAN-150 represent a specialized food processing site or a campsite where a wide range of foods was gathered and processed?
3. What information does Site CA-LAN-150 provide to add to the prehistoric understanding of site occupation and use patterning?
4. Does the faunal assemblage indicate if Site CA-LAN-150 was occupied on a seasonal or year-round basis?

Data Needs

The data needed from Site CA-LAN-150 to address the questions about economic exploitation of resources includes the recovery of floral and faunal remains to permit the reconstruction of diet or dietary practices and preferences of the site occupants. The presence of specific plant and animal species would allow for a more complete understanding of the range of environments exploited by the occupants of Site CA-LAN-150. Available methods for interpreting available data include speciation of vertebrate and invertebrate faunal materials, protein residue analysis, and the subsequent identification of habitats based upon species information.

Based upon other studies in southern California of intact strata, pollen and phytolith preservation may have been possible and should be considered when intact subsurface levels and/or features are identified. Recovered artifacts can also provide inferential information regarding subsistence exploitation. For example, if plant material is not found, the presence of mortars, manos, pestles, bowls, and metates provides evidence that floral and faunal material were processed at the site. Immunological studies of residues on tools from a site may provide data relating to both the use of tools and to resources exploited. As such, protein residue analysis from recovered ground stone implements and flaked tools may also be required. Often, it is necessary to process relatively large numbers of lithic tools to obtain protein residue information for a given site.

To understand settlement patterning for Site CA-LAN-150, the recovered archaeological assemblage must be viewed in its entirety. It is through the comparison of chronological studies, faunal studies, environmental reconstruction, and prehistoric technology studies that an understanding of settlement patterning of the site will be achieved. In addition, although the number of otoliths commonly found in a midden is very small, if present, otoliths can be identified by species and subjected to a seasonality study. The resulting data can then be assumed to reflect the species sample and, consequently, at a minimum, the seasonality of the site occupation.

Integrity

For the data extracted from an archaeological site to address current research issues, it must be established that enough of the deposit remains to retain integrity. This is particularly true in the case of the current project, where major portions of the property have been previously disturbed by development and land modifications over time. Therefore, in the case of the Port of Los Angeles Truck Lot Project, integrity is as much an issue for determining appropriate degrees of mitigation as it is for addressing questions important in current scientific research. According to the CRHR, integrity is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." All subsurface excavations should therefore be thoroughly investigated, their profiles and soil descriptions compared to ascertain the existing state of the stratigraphy of the deposit. Any observed disturbances should be weighed against the quality and quantity of data that was gathered during the testing program. Therefore, the following research questions must be addressed with regards to resource integrity:

Study Topics

1. How have the property and any archaeological deposits or features been disturbed?
2. Does this portion of the deposit retain adequate integrity to yield important information?
3. Given the location of the project within a previously impacted area, if present, do resources represent primary or secondary deposition?
4. Are observed disturbances superficial or have they impacted the deposit to a greater depth?
5. How does the existing topography compare to adjacent properties in terms of cut or fill?
6. Have any disturbances compromised the ability to analyze material culture contextually?

The research questions presented here will be used to guide the accumulation of data at both the archival and archaeological levels, as well as the subsequent analysis of any recovered material. The results of the archival research, field investigation, and laboratory analysis will then be used to evaluate the significance of the identified deposits. If intact archaeological deposits are encountered, then additional research questions may be proposed and should include research areas based upon previous work, potential of available data to address questions, and possible overall contribution to the archaeological record. Specific research questions should focus upon chronology, lithic technology, settlement patterning, subsistence strategy, and trade/travel. These research topics and others should be used to guide the study and to determine the sample size necessary to provide sufficient materials to address these research questions.

5.0 METHODOLOGY

This study was conducted in conformance with Section 21083.2 of the California Public Resources Code and CEQA. Statutory requirements of CEQA (Section 15064.5) were followed in evaluating the significance of resources. Specific definitions for archaeological resource type(s) used for the project are those established by the State Historic Preservation Office (SHPO 1995). All reporting will follow the Office of Historic Preservation's (OHP) Archaeological Resource Management Report (ARMR) Guidelines (OHP 1990).

5.1 Archaeological Records Search

BFSA requested a records search from the SCCIC at CSU Fullerton for an area of one-half mile surrounding the project to determine the presence of any previously recorded archaeological sites. The complete results of the records search are provided in Appendix B and discussed in Section 6.1. The SCCIC search also included a standard review of the National Register of Historic Places (NRHP) and the OHP Built Environment Resources Directory (BERD). Land patent records, held by the Bureau of Land Management (BLM) and accessible through the BLM General Land Office website, were also reviewed for pertinent project information. In addition, the BFSA research library was consulted for any relevant historical information.

5.2 Native American Consultation

A SLF search was requested from the NAHC to list potentially sacred or ceremonial sites or landforms on or near the project (Appendix C). The SLF search returned negative results for the proposed project area.

5.3 Field Methodology

The archaeological survey was conducted by inspecting areas of exposed soil within the property to search for cultural materials. As part of the survey and evaluation, 13 STPs were excavated to explore the potential for subsurface cultural deposits within the identified shell scatter. The 30-centimeter-diameter shovel tests were excavated in decimeter levels to between 30 and 80 centimeters below the surface. The placement of the STPs was determined by the limits of the surface expression of the identified shell scatter identified across the project area. The STPs were excavated following standard archaeological protocol.

All excavated soils were screened through one-eighth-inch hardware mesh screens, and all collected ecofacts were placed in plastic Ziploc bags and labeled with the appropriate provenience information. All STPs were mapped using a Trimble Geo XT Global Positioning System (GPS) unit equipped with TerraSync software. Photographs were taken to document field conditions during the current study.

5.3.1 Field Survey

Under the direction of BFSA Principal Investigator Tracy A. Stropes, M.A., RPA, staff archaeologist Allison Reynolds conducted the survey of the Port of Los Angeles Truck Lot Project on March 2, 2023. Parallel survey transects spaced at approximately 10-meter intervals were utilized throughout the entire project and photographs were taken to document project conditions (see Section 6.2). The topography of the project was noted as generally slopping downward from west to east along John S. Gibson Boulevard. In general, the entire subject property has been impacted by demolition, grading, and fill several times since at least the 1930s (see Figures 2.0–4 through 2.0–6).

5.3.2 Subsurface Testing

The testing program provided information to determine the presence or absence of subsurface deposits, assess deposit significance, and evaluate potential impacts to those resources. Because the property has been previously disturbed, the STPs were placed across the entirety of the expression of the identified shell scatter to identify the possibility of buried intact deposits potentially associated with CA-LAN-150. The protocol for the implementation of the STP sampling program includes the following procedures:

- Any surface artifacts (historic and prehistoric) or concentrations of shell within the property were mapped and recorded. The identification of surface artifacts during the Phase I survey program was the basis for the Phase II testing program. All the mapping to be conducted was accomplished using Global Positioning System units and data applicable to the project base maps.
- The field investigation included the excavation of 13 STPs within the project. Each trench measured approximately 30-centimeters in diameter and were excavated in decimeter levels to between 30 and 80 centimeters below the surface. Overall, the STPs served to identify the limits of any subsurface archaeological deposits within the identified surface expression of the resource. Soil profiles and notes were completed for the excavations.
- Soils from the excavations were sifted through a one-eighth-inch screens to recover artifacts, which were then collected to characterize the sample. The quantity of soil sampled was dependent upon factors of artifact density, disturbance, cobbles and fill, and depth.
- All cultural materials recovered from archaeological deposits were returned to BFSA laboratories for cleaning, cataloging, and analysis. Only a low frequency of prehistoric shell, faunal bone and lithic artifacts were collected.
- All information gathered from the field, laboratory analysis, and research has been incorporated into this technical report following CEQA guidelines and requirements.

5.4 Laboratory Analysis

Laboratory analysis of any prehistoric or historic material collected during the testing program will be initiated by taking an inventory of the collection. The collection will then be subjected to wet screening to remove as much of the dirt as possible from the artifacts. This process will help to facilitate the laboratory sorting and cataloging process.

5.4.1 Artifact Sorting and Analysis

The sorting technique will include the sorting, identification, and cataloging of all materials returned to the BFSA laboratory. Bulk items such as fragments of concrete, slag, and nondescript glass and metal will be weighed and cataloged en masse, by material type, for each level. All remaining artifacts will be separated by class and type and then identified to the most specific level possible. The artifacts will be sorted and cataloged, including totals, materials, condition, weight, provenience, and unique artifact identification numbers.

If prehistoric lithic artifacts are recovered from the project, they will be subjected to in-house analysis that will include recordation of lithic material, critical measurements and weight, and inspection for evidence of use wear, retouch, patination, or stains. The recovered flakes will be subjected to technologically-based lithic studies.

Non-lithic materials, such as ecofacts (shell, bone, or wood), will be subjected to specialized analyses. Other specialized studies, which will be conducted if the appropriate materials are encountered, include marine shell species identification, faunal analysis, otolith analysis (for seasonality), radiocarbon dating, obsidian sourcing and hydration, and blood residue and phytolith studies.

5.5 Provisions for the Discovery of Human Remains

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county medical examiner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The medical examiner must be notified of the discovery immediately. If the remains are determined to be prehistoric, the medical examiner would notify the NAHC, who would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Adherence to State Health and Safety Code Section 7050.5 would occur as a matter of course and would ensure that impacts are less than significant.

5.6 Recordation and Curation

Any cultural resources identified as part of the Phase I and II cultural resources study will be recorded on the appropriate Department of Parks and Recreation (DPR) site record forms and submitted to the SCCIC at CSU Fullerton. After cataloging, identification, and analysis, each cataloged entry will be marked with the appropriate provenience and catalog information. The collection will be prepared for permanent storage in compliance with the standards promoted by state and federal museum guidelines. If any cultural materials are recovered, the prehistoric and/or historic cultural materials recovered from those excavations will be curated at an appropriate curation facility. Upon approval from the LAHD, the transfer of the collection will be executed. Copies of all data and the final report will be included with the curated artifact collection. All notes, photographs, and documents associated with the project will be housed at the office of BFSA in Poway, California.

5.7 Applicable Regulations

Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of Los Angeles in history, architecture, archaeology, engineering, and culture. Specifically, criteria outlined in CEQA provide the guidance for making such a determination. The following sections detail the criteria that a resource must meet to be determined important.

5.7.1 California Environmental Quality Act

According to CEQA §15064.5a, the term "historical resource" includes the following:

1) A resource listed in, or determined to be eligible by, the State Historical Resources Commission, for listing in the CRHR (Public Resources Code SS5024.1, Title 14 CCR. Section 4850 et seq.).
2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (PRC SS5024.1, Title 14, Section 4852), including the following:

    a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    b) Is associated with the lives of persons important in our past;
    c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    d) Has yielded, or may be likely to yield, information important in prehistory or history.

4) The fact that a resource is not listed in, or determined eligible for listing in, the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1[g] of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

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

1) Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.
2) The significance of a historical resource is materially impaired when a project:

    a) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; 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 a 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 a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

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

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

Sections 15064.5(d) and (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

(d) When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within the project, the lead agency shall work with the appropriate Native Americans as identified by the NAHC, as provided in Public Resources Code SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:
    1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
    2) The requirements of CEQA and the Coastal Act.

6.0 RESULTS

6.1 Records Search Results

An archaeological records search for the project and the surrounding area within a one-half mile radius was conducted by BFSA at the SCCIC at CSU Fullerton (Appendix B). The search results identified 16 cultural resources within one-half mile of the project, none of which are recorded within the property boundaries (Table 6.1–1). However, two of the previously recorded resources (CA-LAN-150 and CA-LAN-2135H) abut the property to the east and northwest, respectively. Site CA-LAN-150 was recorded in 1912, by N.C. "Nels" Nelson, as a shell midden measuring 600 by 75 feet and "located at the western end of the Wilmington Lagoon on the bluff at the left-hand side of Wilmington Road." At the time of the initial recording, Nelson (1912) estimated the depth of the site at four feet. At the time of the recording Nelson (1912) did not identify the presence of any associated artifacts. A site record form update by Dillon (1981) suggests that the site was destroyed as a result of earthmoving activities subsequent to 1964. However, due to the limited amount of data available on the site, the exact location, horizontal extent, or depth of the site remains largely unknown. It also remains unclear as to how Dillon (1981) made the determination that the site had been destroyed. CA-LAN-2135H includes the historic site of the 1917 Los Angeles Union Oil Refinery.

Of the remaining previously recorded resources, seven are prehistoric and nine are historic. The prehistoric sites include two shell middens, two habitation sites, two lithic scatters, and one unknown. The historic resources include a historic refuse deposit, five historic structures related to the development of the port, and three elements of historic rail lines.

Table 6.1–1
Previously Recorded Archaeological Sites
Within a One-Half-Mile Radius of the Project

Site Number(s)	Site Description
CA-LAN-2873; CA-LAN-2874	Prehistoric lithic scatter
CA-LAN-285; CA-LAN-2875	Prehistoric habitation site
CA-LAN-149; CA-LAN-150	Prehistoric shell midden
CA-LAN-116	Prehistoric unknown
P-19-004167	Historic refuse deposit
CA-LAN-2135H; P-19-188199; P-19-188200; P-19-190956; P-19-190957	Historic structures
P-19-188896; P-19-188897; P-19-190512	Historic rail line

The results of the SCIC records search also indicate that 24 archaeological investigations have been conducted within a one-half mile radius of the subject property, none of which are

specifically relayed to previous work directly within the project area. Additionally, the following historic resources were also consulted, which did not indicate the presence of any additional resources within the project boundaries:

- The NRHP index
- The OHP Archaeological Determinations of Eligibility
- The OHP BERD
- 1925 *Wilmington* topographic map (7.5-minute)
- 1951 *Torrance* topographic map (7.5-minute)
- 1964 *Torrance* topographic map (7.5-minute)

Lastly, a SLF search was requested from the NAHC to list potentially sacred or ceremonial sites or landforms on or near the project (Appendix C). The SLF search returned negative results for the current project area.

6.2 Results of the Field Survey

The Phase I archaeological survey was completed by staff archaeologist Allison Reynolds under the direction of Principal Investigator Tracy A. Stropes. Aerial photographs, maps, and a mobile Trimble Global Positioning System unit permitted orientation and location of the project boundaries. The entire 18.63-acre property was surveyed employing 10-meter spaced transects. The surface of the property, including all exposed ground surfaces, rodent burrows, and disturbed areas, was carefully inspected. A survey form, field notes, and photographs documented the survey work undertaken. The topography of the project was noted as generally sloped and previously graded (Plate 6.2–1). Including the previous grading of the property between 1952 and 1963, noted disturbances include previous road development on the property (Plate 6.2–2). Excluding the dirt walking paths, a majority of the property was covered in dense, low-lying grasses causing moderate to poor ground cover (Plate 6.2–3). No evidence of structures or other features is present within the available historical documentation for the parcel. Despite the poor ground visibility during the survey, an uncosolidated scatter of prehistoric shell was identified in the southernmost portion of the project. The marine shell was observed within previously impacted soil in the flattest elemnt of the overall parcel. The shell scatter was identified as primarily fragments of *Chione* sp. and *Argopecten* sp. (Plate 6.2–4), with the greatest concentration measuring 135 meters north to south by 30 meters east to west. Additional shell fragments were identified north of the shell scatter, but this is likely the result of previous disturbance to the site created by grading, which would have spread the shell scatter outward. In addition, one Monterey Chert flake tool was also identified within the limits of the shell scatter. The presence of the uncosolidated scatter of shell materials and a flake tool indicates a potential for subsurface deposits to also be present.

Plate 6.2–1: Overview of property showing slopes, facing north.

Plate 6.2–2 Example of previous impacts from road construction, facing north.

Plate 6.2–3: Overview of dense ground cover, facing northeast.

Plate 6.2–4: Overview of the unconsolidated prehistoric shell scatter.

6.3 Results of Significance Testing

Based upon the presence of cultural materials during the survey and the potential for subsurface deposits, a testing and significance evaluation program was conducted on July 6, 2023. BFSA archaeologists James Shrieve, Allison Reynolds, and John Baber conducted the subsurface investigations. The test program included a general surface collection and hand excavation of 13 STPs across the previously identified shell scatter (Figure 6.3–1). In total seven debitage, one core fragment, one flake tool, 18.7 grams of faunal bone and 1,722.5 grams of marine shell were recovered during the investigation (Table 6.3–1).

6.3.1 Surface Investigation

BFSA archaeologists carefully inspected the surface of the site. A total of one surface artifact (a Monterey Chert flake tool) and 464.7 grams of shell were identified and collected within the surface limits of the site boundary (Table 6.3–2). These artifacts were primarily dispersed across the southern portion of the project area.

6.3.2 Subsurface Excavation

Thirteen STPs were placed within the previously identified surface limits of the site to determine the presence or absence of a subsurface site component. The 13 STPs were excavated to a depth of 30-80 centimeters, twelve of which were positive for archaeological materials (see Figure 6.3–1). In total, the limited and disturbed subsurface component produced seven debitage one core fragment, 1,257.7 grams of shell, and 18.7 grams of faunal bone. The majority of the materials were concentrated between 0 and 50-cm in depth. No archaeological soil/midden was observed as a result of any of the STP excavations (Table 6.3–3). The soil across the area includes a semi-compact light brownish gray (2.5Y 6/2) silty sand ranging between zero and 60 centimeters in depth, which became more compacted in the lower levels (Plate 6.3–1). A compact light yellowish brown (2.5Y 6/2) silty loam was also noted in some STPs between 60 and 80 centimeters. Noted disturbances within the STPS included rodent activity as well as intermixed construction debris between 0 and 60-cm. Although a limited number of artifacts were identified during the course of the subsurface excavations, the subsurface excavations indicate that there is no intact subsurface component associated with the previously identified resource. Given the limited frequency of artifacts and shells, the assemblage did not lend itself to any detailed analysis.

Figure 6.3–1
Excavation Location Map

(Deleted for Public Review; Bound Separately)

Table 6.3–1
Summary of Cultural Materials Recovered

Object	Recovery		Total	Percent
	Shovel Tests	Surface Collection		
Flaked stone				
Debitage	7	-	7	77.78
Core	1	-	1	11.11
Flake tool	-	1	1	11.11
Bulk items (weights in grams)				
Faunal bone	18.7	-	18.7	-
Marine shell	1,257.8	464.7	1,722.5	-
Total	8	1	9	100.00
Percent	88.89	11.11	100.00	

Table 6.3–2
Surface Collection Data

Surface Collection	Object Type	Material Type	Quantity	Catalog No.
1	Marine Shell	Undifferentiated	221.4 *grams*	071
2			25.1 *grams*	072
3			3.8 *grams*	073
4			21.2 *grams*	074
5			1.8 *grams*	075
6			9.2 *grams*	076
7			8.6 *grams*	077
8			27.2 *grams*	078
9			9.2 *grams*	079
10			2.8 *grams*	080
11			6.6 *grams*	081
12			1.9 *grams*	082
13			6.0 *grams*	083
	Flake Tool	Chert	1	097
14	Marine Shell	Undifferentiated	2.0 *grams*	084

Surface Collection	Object Type	Material Type	Quantity	Catalog No.
15			13.4 *grams*	085
16			4.3 *grams*	086
17			17.4 *grams*	087
18			8.1 *grams*	088
19	Deaccessioned, not culturally modified			
20	Marine Shell	Undifferentiated	14.2 *grams*	089
21			8.3 *grams*	090
22			4.4 *grams*	091
23			22.3 *grams*	092
24			5.7 *grams*	093
25			12.6 *grams*	094
26			4.0 *grams*	095
27			3.4 *grams*	096
		***Total**	1	

**Total does not include weights in grams*

Table 6.3–3
Shovel Test Excavation Data

Unit No	Depth (cm)	Object Type	Material Type	Quantity
1	0-10	Marine shell	Undifferentiated	7.4 *grams*
	10-20			1.5 *grams*
	20-30	No recovery		
	30-40			
2	0-10	Marine shell	Undifferentiated	9.8 *grams*
	10-20			2.7 *grams*
	20-30			3.5 *grams*
	30-40	Debitage	Chert	1
		Marine shell	Undifferentiated	5.2 *grams*
	40-50			6.2 *grams*
	50-60			1.9 *grams*
	60-70			0.3 *grams*
	70-80			0.1 *grams*
3	0-10	Marine shell	Undifferentiated	4.3 *grams*
	10-20			1.0 *grams*

Unit No	Depth (cm)	Object Type	Material Type	Quantity
	20-30			0.9 *grams*
	30-40			3.0 *grams*
	40-50			0.4 *grams*
4	0-10	Debitage	Chert	1
		Marine shell	Undifferentiated	1.6 *grams*
	10-20			8.1 *grams*
	20-30			2.1 *grams*
	30-40			0.9 *grams*
5	0-10	Marine shell	Undifferentiated	1.3 *grams*
	10-20			1.1 *grams*
	20-30			0.6 *grams*
	30-40	No recovery		
	40-50			
6	0-10	Marine shell	Undifferentiated	10.2 *grams*
	10-20			4.3 *grams*
	20-30			0.8 *grams*
	30-40			0.3 *grams*
	40-50			0.1 *grams*
7	0-10	No recovery		
	10-20			
	20-30			
8	0-10	Marine shell	Undifferentiated	103.1 *grams*
	10-20			129.5 *grams*
	20-30	Faunal bone	Mammal	18.4 *grams*
		Marine shell	Undifferentiated	118.6 *grams*
	30-40	Faunal bone	Mammal	0.1 *gram*
		Marine shell	Undifferentiated	137.7 *grams*
	40-50			127.5 *grams*
	50-60	Debitage	Chert	1
		Marine shell	Undifferentiated	45.0 *grams*
	60-70	Core	Chert	1
		Marine shell	Undifferentiated	29.5 *grams*
	70-80			4.9 *grams*
9	0-10	Marine shell	Undifferentiated	26.1 *grams*
	10-20			16.1 *grams*
	20-30			8.5 *grams*

Unit No	Depth (cm)	Object Type	Material Type	Quantity
	30-40			7.4 *grams*
	40-50			6.8 *grams*
	50-60			2.4 *grams*
10	0-10	Marine shell	Undifferentiated	11.5 *grams*
	10-20			1.6 *grams*
	20-30			1.7 *grams*
	30-40			1.1 *grams*
11	0-10	Marine shell	Undifferentiated	0.1 *gram*
	10-20	No recovery		
	20-30	Marine shell	Undifferentiated	0.2 *gram*
12	0-10	Marine shell	Undifferentiated	18.3 *grams*
	10-20			15.3 *grams*
	20-30			41.6 *grams*
	30-40			17.2 *grams*
	40-50			7.4 *grams*
13	0-10	Debitage	Chert	2
		Marine shell	Undifferentiated	44.7 *grams*
	10-20	Debitage	Chert	1
		Marine shell	Undifferentiated	18.8 *grams*
	20-30			6.4 *grams*
	30-40	Debitage	Chert	1
		Marine shell	Undifferentiated	12.0 *grams*
	40-50			54.0 *grams*
	50-60			59.8 *grams*
	60-70	Faunal bone	Crustacean	0.2 *gram*
		Marine shell	Undifferentiated	39.8 *grams*
	70-80			64.1 *grams*
			***Total**	7

**Total does not include weights in grams*

Plate 6.3–1: Shovel Test Pit 8.

6.4 Discussion

The previous disturbance within the subject property appears to be the cause for the presence of traces of marine shell within the Port of Los Angeles Truck Lot Project. The Phase I and II cultural resources study did not result in the observation of any significant artifact concentrations, cultural deposits, or other features related to the prehistoric or historic use within the project boundaries. No midden soils or significant cultural resources were observed during the testing.

The artifacts recovered from the Port of Los Angeles Truck Lot Project constitute too small of a collection for broad research questions to be applied. Furthermore, the materials observed in the STPs are interpreted as potentially being a secondary deposition from CA-LAN-150 that resulted from repeated previous impacts to the property as illustrated in Figures 2.0–4 through 2.0–6. This limited deposition has also been heavily modified by the historic development of the property as early as the 1930s. Such disturbance has removed any *in situ* provenience information from the collected materials which represent only minimum research value and are not considered to be indicative of a significant prehistoric deposit. The current testing program has exhausted any research potential that the deposit may have contained, and therefore, it is not considered significant, does not qualify as a Historical Resource, and is not eligible for designation on the CRHR in accordance with CEQA.

7.0 RECOMMENDATIONS

The Phase I and II cultural resources study for the Port of Los Angeles Truck Lot Project was conducted in conformance with Section 21083.2 of the California Public Resources Code and CEQA. The survey and archaeological testing program for the Port of Los Angeles Truck Lot Project resulted in the identification of a diffuse and disturbed prehistoric shell scatter with limited associated artifacts likely representing secondary deposition from CA-LAN-150. All the materials are likely related to the general prehistoric occupation of what was once Wilmington Lagoon. Given the small quantity of artifacts dispersed across the project and the information generated by the testing program, the evaluation was reached that the project does not appear to contain any potentially significant cultural features or deposits. Based upon the documentation of only a sparse prehistoric shell deposit across the property with limited associated artifacts, the proposed development would not result in adverse impacts to significant cultural resources, as defined in the California Code of Regulations, Section 15064.5.

Due to the results of the archaeological testing and significance evaluation, and the presence of a limited shell/artifact scatter, the potential exists to discover additional prehistoric deposits on the property. Although the historic research for the property and STP results revealed that the property has been highly disturbed and it is unlikely that the any intact deposits remain, the potential exists that grading of the project could encounter historic and/or prehistoric artifacts and deposits not encountered during testing. Therefore, monitoring during ground-disturbing activities, such as grading or trenching, by a qualified archaeologist and Native American representative is recommended to ensure that if buried features (*i.e.,* human remains, hearths, or cultural deposits) are present, they will be handled in a timely and proper manner. The scope of the monitoring program is provided below.

Cultural Resources Monitoring Plan

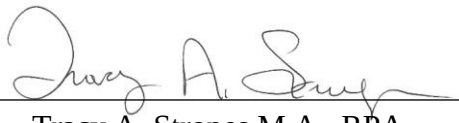
A cultural resources monitoring plan to mitigate potential impacts to undiscovered buried cultural resources within the Port of Los Angeles Truck Lot Project shall be implemented to the satisfaction of the lead agency. This program shall include, but not be limited to, the following actions:

1) Prior to issuance of a grading permit, the applicant shall provide written verification in the form of a letter from the project archaeologist to the lead agency stating that a certified archaeologist has been retained to implement the monitoring program.
2) The project applicant shall provide Native American monitoring during grading. The Native American monitor shall work in concert with the archaeological monitor to observe ground disturbances and search for cultural materials.
3) The certified archaeologist shall attend the pregrading meeting with the contractors to explain and coordinate the requirements of the monitoring program.

4) During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and tribal representative shall be on-site, as determined by the consulting archaeologist, to perform periodic inspections of the excavations. The frequency of inspections will depend upon the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The consulting archaeologist shall have the authority to modify the monitoring program if the potential for cultural resources appears to be less than anticipated.
5) Isolates and clearly non-significant deposits will be minimally documented in the field so the monitored grading can proceed.
6) In the event that previously unidentified intact cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance operation in the area of the discovery to allow for the evaluation of potentially significant cultural resources. The archaeologist shall contact the lead agency at the time of discovery. The archaeologist, in consultation with the lead agency, shall determine the significance of the discovered resources. The lead agency must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the lead agency before being carried out using professional archaeological methods. If any human bones are discovered, the county coroner and lead agency shall be contacted. In the event that the remains are determined to be of Native American origin, the most likely descendant, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains.
7) Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered, and features recorded using professional archaeological methods. The project archaeologist shall determine the amount of material to be recovered for an adequate artifact sample for analysis.
8) All cultural material collected during the grading monitoring program shall be processed and curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility, to be accompanied by payment of the fees necessary for permanent curation.
9) A report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the lead agency prior to the issuance of any building permits. The report will include Department of Parks and Recreation Primary and Archaeological Site Forms.

8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief and have been compiled in accordance with CEQA criteria as defined in Section 15064.5 and LAHD cultural resource requirements.



March 14, 2024

Tracy A. Stropes M.A., RPA
Principal Investigator

Date

9.0 REFERENCES CITED

Altschul, Jeffery H. and Donn R. Grenda

2002 *Islanders and Mainlanders: Prehistoric Context for the Southern California Bight*. SRI Press, Tucson, Arizona.

Arnold, Jeanne E.

1992 Early Stage Biface Production Industries in Coastal Southern California. *In Stone Tool Procurement, Production, and Distribution in California*, edited by Jeanne E. Arnold, pp. 67-129. Cotsen Institute of Archaeology, University of California at Los Angeles.

Bean, Lowell John and Charles R. Smith

1978 Gabrieliño. In *California,* edited by Robert F. Heizer, pp. 538–549. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Beattie, George W. and Helen P. Beattie

1939 *Heritage of the Valley: San Bernardino's First Century.* Biobooks, Oakland, California.

Brigandi, Phil

1998 *Temecula: At the Crossroads of History*. Heritage Media Corporation, Encinitas, California.

Caughey, John W.

1970 *California: A Remarkable State's Life History* (Third Edition). Prentice-Hall, Englewood Cliffs, New Jersey.

Chapman, Charles E.

1921 A History of California: The Spanish Period. The Macmillan Company, New York.

Chartkoff, Joseph L. and Kerry Kona Chartkoff

1984 *The Archaeology of California*. Stanford University Press, Stanford, California.

Cook, Sherburne F.

1976 *The Conflict Between the California Indian and White Civilization*. University of California Press, Berkeley and Los Angeles, California.

Cooley, Theodore

1982 *Analysis and Interpretation of CA-LAN-844: A Prehistoric Quarry Workshop and Factory in the Upper Palos Verdes Hills, Los Angeles County, California.* Unpublished Master's Thesis, Department of Anthropology, California State University, Los Angeles, California.

County of Los Angeles

1983 Santa Catalina Island: Local Coastal Plan. Los Angeles County Department of Regional Planning.

Dibblee, T.W., Ehrenspeck, H.E., Ehlig, P.L., and Bartlett, W.L.

1999 Geologic map of the Palos Verdes Peninsula and vicinity, Redondo Beach, Torrance, and San Pedro quadrangles, Los Angeles County, California. Dibblee Geological Foundation, Dibblee Foundation Map DF-70, map scale: 1:24,000.

Dillon, Brian D.

1981 Update for the Archaeological Site Survey Record for Site LAN-149. University of California Los Angeles. Unpublished report on file at the South Central Coastal Information Center at California State University at Fullerton, Fullerton, California.

Erlandson, Jon M.

1994 *Early Hunter-Gatherers of the California Coast*. New York and London: Plenum Press.

Erlandson, J.M., D.J. Kennett, B.L. Ingram, D.A. Guthrie, D.P. Morris, M.A. Tveshov, G.J. West, and P.L. Walker

1996 An Archaeological and Paleontological Chronology for Daisy Cave (CA-SMI-261), San Miguel Island, California. *Radiocarbon* 38:355–373.

Gallegos, Dennis R., J. Jeffrey Flenniken, Tracy A. Stropes, Monica Guerrero, and Brian Hatoff

2002 Cultural Resource Monitoring and Data Recovery Program for CA-SDI-7215, Otay Mesa Generating Project, San Diego County, California. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

2003 Cultural Resource Data Recovery Program for CA-SDI-9975, Otay Mesa, San Diego County, California. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Gamble, Lynn H.
2005 Culture and Climate: Reconsidering the Effect of Paleoclimatic Variability Among Southern California Hunter-Gatherer Societies. World Archaeology 37(1):92-108.

Glassow, Michael A., Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell
2007 Prehistory of the Northern California Bight and the Adjacent Transverse Ranges. In *California Prehistory, Colonization, Culture, and Complexity,* edited by T.L. Jones and K.A. Klar, pp. 191–213. Altamira Press, New York.

Gudde, Erwin G.
1998 *California Place Names: The Origin and Etymology of Current Geographical Names.* Fourth Edition, revised and enlarged by William Bright. Berkeley and Los Angeles: University of California Press.

Hanna, Phil Townsend
1951 *The Dictionary of California Land Names*. Second edition. Los Angeles, California: Automobile Club of Southern California.

Heizer, Robert F. and Adam E. Treganza
1972 *Mines and Quarries of the Indians of California*. Ballena Press, Ramona, California.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Grace Rensch
1962 *Historic Spots in California.* Fourth Printing. Revised by R. Teiser. Stanford University Press.

Hudson, Travis, Janice Timbrook, and Melissa Rempe (eds.)
1978 Tomol: Chumash Watercraft as Described in the Ethnographic Notes of John P. Harrington. Ballena Press Anthropological Papers (9).

Jochim, Michael A.
1976 *Hunter-Gatherer Subsistence and Settlement – A Predictive Model*. Studies in Archaeology. Academic Press, New York.

Johnson, J.R., T.W. Stafford, H.O. Ajie, and D.P. Morris
2002 Arlington Springs Revisited. In *Proceedings of the Fifth California Islands Symposium,* edited by D. Browne, K. Mitchell, and H. Chaney, pp. 541–545. Santa Barbara Museum of Natural History, Santa Barbara, California.

Johnson, Paul C., Dorothy Krell, John S. Weir, Harry Downie, Adrian Wilson, Joe Seney, Philip Spencer, and France Carpentier

1972 *The California Missions: A Pictorial History.* Sunset Books, Lane Publishing.

Kirby, Michael X. and Thomas A. Deméré

2007 Paleontology Report for the San Pedro Waterfront Project Environmental Impact Statement/Environmental Impact Report (EIR/EIS) City Of Los Angeles Los Angeles County, California. Report on File, City of Los Angeles.

Koerper, Henry C., Roger D. Mason, and Mark L. Peterson

2002 Complexity, Demography, and Change in Late Holocene Orange County. In *Catalysts to Complexity: Late Holocene Societies of the California Coast,* edited by J.M. Erlandson and T.L. Jones, pp. 63–81. University of California, Los Angeles, Institute of Archaeology.

Küchler, A.W.

1977 The natural vegetation of California. In: M. G., Barbour & J., Major (eds.), The Terrestrial Vegetation of California. John Wiley & Sons, New York. In pocket.

Matson, C. H. (ed.),

1920 Handbook of World Trade: Los Angeles, U.S.A., World Commerce Bureau, Los Angeles, CA.

McCawley, William

1996 *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, California: Malki Museum press and Novato, Califoria: Ballena Press.

2002 A Tale of Two Cultures: The Chumash and the Gabrielino. In J. Altschul and D. Grenda, eds., *Islanders and Mainlanders* pp. 45–65. Tucson: SRI Press.

Meighan, Clement W.

1959 The Little Harbor Site, Catalina Island: An Example of Ecological Interpretation in Archaeology. *American Antiquity* 24(4):383–405.

Moratto, Michael J.

1984 *California Archaeology*. Academic Press, New York.

Moriarty, James R., III
1966 Culture Phase Divisions Suggested by Topological Change Coordinated with Stratigraphically Controlled Radiocarbon Dating in San Diego. *Anthropological Journal of Canada* 4(4):20–30.

Nelson, N.C.
1912 Archaeological Site Survey Record for Site LAN-149. Unpublished report on file at the South Central Coastal Information Center at California State University at Fullerton, Fullerton, California.

Nevin, David
1978 *The Mexican War.* Time-Life Books, Inc., Alexandria, Virginia.

Office of Historic Preservation
1990 Archaeological Resource Management Reports (ARMR): Recommended Contents and Format. Office of Historic Preservation, California State Parks.

Pedersen, Jeannine L.
2004 *Images of America: Catalina Island*. San Francisco, California: Arcadia Publishing.

Pourade, Richard F.
1961 *Time of the Bells*. The History of San Diego Volume 2. Union-Tribune Publishing Company, San Diego, California.

Queenan, C.F.
1983 The Port of Los Angeles: From Wilderness to World Port. Los Angeles Harbor Department. San Pedro, California.

Rick, T.C., J.M. Erlandson, and R.L. Vellanoweth
2001 Paleocoastal Fishing Along the Pacific Coast of the Americas: Evidence from Daisy Cave, San Miguel Island, California. *American Antiquity* 66:595–614.

Rogers, Malcolm
1939 Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. In *San Diego Museum Papers* (No. 3 – 1989 printing). San Diego Museum of Man, San Diego, California.

Rosenthal, E. Jane, Steven L. Williams, Mark Roeder, Wayne Bonner, and Ivan H. Strudwick
1988 The Bulrush Canyon Project: Excavations at Bulrush Canyon Site (SCaI-137) and Camp Cactus Road Site, Santa Catalina Island, California. *Pacific Coast Archaeological Society Quarterly* 24(2&3).

San Buenaventura Research Associates
1992 Section 106 Historic Resources Analysis: United Fruit Company Berth 147, Port of Los Angeles. Santa Paula, CA, 1992.

Schell, Bruce, Raj Varatharaj, and Arul Arulmoli
2003 Technical Memorandum. Port of Los Angeles Agreement No 2219, Directive No. 6. San Pedro Waterfront Phase I, Initial Project–Geology/Geotechnical Input to Environmental Document. Prepared by Earth Mechanics, Inc.

Shettle, M.L.
2004 "Historic California Posts – Naval Air Station, Terminal Island." Electronic document, http://www.militarymuseum.org/NASTeminalIsland.html, accessed May 2023.

Silka, Henry P.
1993 San Pedro: A Pictoral History. San Pedro Bay Historical Society.

State Historic Preservation Office (SHPO)
1995 Instructions for Recording Historical Resources. Office of Historic Preservation, Sacramento.

Stropes, Tracy A.
2007 *Nodule Industries of North Coastal San Diego: Understanding Change and Stasis in 10,000 Years of Lithic Technology.* Thesis/dissertation submitted to San Diego State University, San Diego, California.

Strudwick, Ivan H., Joseph E. Baumann, and Daniel Ewers
2008 Santa Catalina Island: Lay of the Land. LSA Associates, Inc. Annual meeting of the Society for California Archaeology, Burbank California. Unpublished report on file at the South Central Coastal Information Center at California State University, Fullerton, Fullerton, California.

Sutton, Mark Q.
2009 People and Language: Defining the Takic Expansion into Southern California. *Pacific Coast Archaeological Society Quarterly* 41(2&3):31–93.

2010 The Del Rey Tradition and Its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(2):1–54.

Sutton, Mark Q. and Jill K. Gardner

2010 Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly* 42(4):1–64.

Walker, Edwin Francis

1951 Five Prehistoric Sites in Los Angeles County, California. *Publications of the Frederick Webb Hodge Anniversary Publication Fund* 6:1–116. Southwest Museum, Los Angeles.

Wallace, William J.

1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214–230.

1986 Archaeological Research at Malaga Cove. In *Symposium: A New Look at Some Old Sites,* edited by G.S. Breschini and T. Haversat, pp. 21–27. Coyote Press Archives of California Archaeology, Salinas, California.

Warren, Claude N. (editor)

1968 Cultural Tradition and Ecological Adaptation on the Southern Coast. In *Archaic Prehistory in the Western United States,* C.I. Williams ed. *Eastern New Mexico University Contributions in Anthropology* 1(3):1–14.

APPENDIX A

Resumes of Key Personnel

Tracy A. Stropes, MA, RPA

Director/Principal Investigator

BFSA Environmental Services, A Perennial Company
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: tstropes@bfsa.perennialenv.com

Education

Master of Arts, Anthropology, San Diego State University, California **2007**

Bachelor of Science, Anthropology, University of California, Riverside **2000**

Professional Memberships

Register of Professional Archaeologists
Society for California Archaeology
Archaeological Institute of America

Experience

Director/Principal Investigator **March 2009–Present**
BFSA Environmental Services, a Perennial Company **Poway, California**

Project Management of all phases of archaeological investigations for local, state, and federal agencies, field supervision, lithic analysis, National Register of Historic Places (NRHP) and California Environmental Quality Act (CEQA) site evaluations, and authoring/coauthoring of cultural resource management reports.

Archaeological Principal Investigator **June 2008–February 2009**
TRC Solutions **Irvine, California**

Cultural resource segment of Natural Sciences and Permitting Division; management of archaeological investigations for private companies and local, state, and federal agencies, personnel management, field and laboratory supervision, lithic analysis, Native American consultation and reporting, MRHP and CEQA site evaluations, and authoring/coauthoring cultural resource management reports.

Principal Investigator and Project Archaeologist **June 2006–May 2008**
Archaeological Resource Analysts **Oceanside, California**

As a sub consultant, served as Principal Investigator and Project Archaeologist for several projects for SRS Inc., including field direction, project and personnel management, lab analysis, and authorship of company reports.

Project Archaeologist **September 1996–June 2006**
Gallegos & Associates **Carlsbad, California**

Project management, laboratory management, lithic analysis, field direction, Native American consultation, report authorship/technical editing, and composition of several data recovery/preservation programs for both CEQA and NEPA level compliance.

Project Archaeologist **September 1993–September 1996**
Macko Inc. **Santa Ana, California**

Project management, laboratory management, lithic analysis, field supervision, and report authorship/technical editing.

Archaeological Field Technician **January 1993–September 1993**
Chambers Group Inc. **Irvine, California**

Archaeological excavation, surveying, monitoring, wet screen facilities management, and project logistics.

Archaeological Field Technician **May 1992–September 1992**
John Minch and Associates **San Juan Capistrano, California**

Archaeological excavation, surveying, monitoring, wet screen facilities management, and project logistics.

Professional Accomplishments

Mr. Stropes is a professional archaeologist with over 30 years of experience in cultural resource management. His experience includes over ten years in project management, report authorship, lithic analysis, laboratory management, Native American consultation, and editing for several technical reports for numerous projects throughout southern California. Mr. Stropes has conducted cultural resource surveys, archaeological site testing and evaluations for National Register eligibility and California Environmental Quality Act (CEQA) compliance, mitigation of resources through data recovery for archaeological sites, budget and report preparation, and direction of crews of all sizes for projects ranging in duration from a single day site visit to one year. Mr. Stropes is a Registered Professional Archaeologist and on the list of archaeological consultants qualified to conduct archaeological investigations southern California and the County of San Diego. He has served as project archaeologist for numerous projects and composed data recovery and preservation programs for sites throughout California for both CEQA and NEPA level compliance. He has acted as teaching assistant for archaeological field classes at several sites in Orange (Cypress College), Los Angeles (Cypress College), and San Diego Counties (San Diego State University). In addition, Mr. Stropes was employed to teach discussion sessions for introduction to cultural anthropology classes at SDSU. Internationally, Mr. Stropes has acted as field surveyor for the Natural History Foundation of Orange County & Institucion Nacional de Antropologia y Historia surveying and relocating several sites in northern Baja California. Mr. Stropes has served as the senior project archaeologist on the following select projects.

1900 and 1912 Spindrift Drive: An extensive data recovery and mitigation monitoring program at the Spindrift Site, an important prehistoric archaeological habitation site stretching across the La Jolla area. The project resulted in the discovery of over 20,000 artifacts and nearly 100,000 grams of bulk faunal remains and marine shell, indicating a substantial occupation area (2013-2014).

Ocean Breeze Ranch: An extensive CEQA and Section 106 archaeological investigation of 1,400 acres and 20 cultural resources, both prehistoric and historic, within the Bonsall neighborhood of the county of San Diego. The project included an assessment of sites for eligibility for listing on the California Register of Historical Resources, the County of San Diego Resource Protection Ordinance, and the National Register of Historic Places, which resulted in the identification of four CRHR-eligible, RPO-significant, and NRHP-eligible sites.

Citracado Parkway Extension: An ongoing project in the city of Escondido to mitigate impacts to an important archaeological occupation site. Various archaeological studies have been conducted by BFSA, including CEQA-level survey and testing programs and Section 106 historic resources studies, resulting in the identification of a significant cultural deposit within the project area (2009-present).

Otay Ranch Village 13: An extensive archaeological investigation of nearly 2,000 acres and 84 archaeological sites, both prehistoric and historic, within the county of San Diego, which included prehistoric habitation sites, quarry sites, resource processing sites, and extensive lithic scatters. The project included an assessment of sites for eligibility for listing on the National Register of Historic Places (2016-2018).

Westin Hotel and Timeshare (Grand Pacific Resorts): Data recovery and mitigation monitoring program in the city of Carlsbad consisted of the excavation of 176 one-square-meter archaeological data recovery units which produced thousands of prehistoric artifacts and ecofacts, and resulted in the preservation of a significant prehistoric habitation site. The artifacts recovered from the site presented important new data about the prehistory of the region and Native American occupation in the area (2017).

Cantarini Ranch: A Section 106 archaeological assessment and evaluation for the NRHP of 15 archaeological sites and three isolates, including NRHP-significant prehistoric temporary camp/habitation sites, in the city of Carlsbad (2015-2017).

Citracado Business Park West: An archaeological survey and testing program at a significant prehistoric archaeological site and historic building assessment for a 17-acre project in the city of Escondido. The project resulted in the identification of 82 bedrock milling features, two previously recorded loci and two additional and distinct loci, and approximately 2,000 artifacts (2018).

College Boulevard: A Section 106 archaeological assessment and evaluation for the NRHP of seven archaeological sites, including prehistoric temporary camp/habitation sites, bedrock milling feature sites, and both prehistoric and historic artifact scatters in the city of Carlsbad (2015).

The Everly Subdivision Project: Data recovery and mitigation monitoring program in the city of El Cajon resulted in the identification of a significant prehistoric occupation site from both the Late Prehistoric and Archaic Periods, as well as producing historic artifacts that correspond to the use of the property since 1886. The project produced an unprecedented quantity of artifacts in comparison to the area encompassed by the site, but lacked characteristics that typically reflect intense occupation, indicating that the site was used intensively for food processing (2014-2015).

APPENDIX B

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX C

NAHC Sacred Lands File Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX D

Confidential Map

(Deleted for Public Review; Bound Separately)