

## **D2 Archaeological Resources Assessment**



**ARCHAEOLOGICAL RESOURCES  
ASSESSMENT**

**LOS CERRITOS OIL CONSOLIDATION AND WETLAND RESTORATION  
PROJECT**

**CITY OF LONG BEACH, COUNTY OF LOS ANGELES, CALIFORNIA**

**LSA**

January 2017

# ARCHAEOLOGICAL RESOURCES ASSESSMENT

## LOS CERRITOS OIL CONSOLIDATION AND WETLAND RESTORATION PROJECT

CITY OF LONG BEACH, COUNTY OF LOS ANGELES, CALIFORNIA

Submitted to:

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Project No. LYC1501

### **National Archaeological Database (NADB)**

*Type of Study:* Archaeology Assessment (Records Search, Field Survey)

*Area Covered:* 195.8 acres

*Sites Recorded:* 19-187657, LSA-BIX-1

*USGS Quadrangle:* Los Alamitos, California, 7.5-minute



January 2017

## MANAGEMENT SUMMARY

LSA conducted an archaeological resources assessment for the Los Cerritos Oil Consolidation and Wetland Restoration Project (project) located in the City of Long Beach, County of Los Angeles, California. Specifically, the project area is located in Section 3 and in unsectioned portions of Township 5 South, Range 12 West, and is depicted on the United States Geological Survey *Los Alamitos, California*, 7.5-minute topographic quadrangle map, San Bernardino Baseline and Meridian (Figure 1). The assessment included a records search, research, field survey, and report, which were completed in December 2015 and January 2016. Revisions to the report were made in April 2016, August 2016, and January 2017. All work was conducted in compliance with the California Environmental Quality Act (CEQA).

The 199-acre (ac) project consists of four sites: the Synergy Oil Field Site (154 ac), the “Pumpkin Patch” Site (7 ac), the Los Cerritos Wetlands Authority (LCWA) Site (5 ac), and the City Marketplace Marsh (33 Acres) Site (33 ac) (Figure 2). The records search for the project area was conducted at the South Central Coastal Information Center on December 4, 2015. The results of the records search indicated that one cultural resource has been recorded within the Synergy Oil Field Site, and nine cultural resources have been recorded within 0.5 mile of the project area. The resource recorded within the project area is the historic Bixby Ranch field office building (19-187657). There have been 38 cultural resource studies conducted that include the project area, resulting in approximately 98 percent of the project area having been previously surveyed.

Additional research revealed that in 1960 the Pumpkin Patch property was leased from the Bixby Ranch Company by City Dump and Salvage, Inc. of Long Beach, California for the creation of the City Dump and Salvage Landfill #2. During September 1960, City Dump and Salvage, Inc. received a permit from the County of Los Angeles, Industrial Waste Division, to accept wastes in the eastern half of the site at a minimum of 300 feet from Pacific Coast Highway (Advanced Environmental Concepts 2015).

LSA archaeologists conducted a pedestrian survey of the project area on December 15 and 16, 2015. The entire project area was surveyed except for those areas currently underwater (Figure 3). No prehistoric cultural resources were identified. A surficial trash scatter containing miscellaneous industrial and domestic debris was observed extending along the southern edge of Steamshovel Slough in the Synergy Oil Field Site (LSA-LYC1501-S-1). Artifacts noted appear to date from the 1930s to approximately the 1970s. This trash scatter is associated with the historic oil field that encompasses the project area. The historical trash scatter, LSA-LYC1501-S-1, was evaluated per CEQA guidelines as ineligible for inclusion in the California Register of Historical Resources (California Register). The trash scatter need not be considered further for this or future projects within the Synergy Oil Field Site.

No evidence of the buried City Dump and Salvage Landfill #2 (LSA-LYC1501-S-2) was observed on the Pumpkin Patch property during the pedestrian survey. However, landfill contents may be encountered during excavation for this project. Site LSA-LYC1501-S-2 was evaluated per CEQA

guidelines as ineligible for inclusion in the California Register. The site need not be considered further for this or future projects within the Pumpkin Patch property.

The project area generally consists of open land with currently operational oil features (e.g., wells, tanks, pipelines, roads, occasional utility buildings) and non-operational well pads, structures, and pipelines. The entire project area has been disturbed by oil field operations and contains sparse to dense introduced vegetation and native coastal wetlands vegetation. Ground visibility during the survey was poor to excellent depending on vegetation; oil field operation structures; and the fluctuating tidal flow, which when at high tide created large areas of standing water. These factors limited the accessible survey area to approximately 80 percent. The project area contains Artificial Fill placed in a coastal estuary/wetlands environment.

Due to the wetland environment of the project area, it is not considered conducive to prehistoric habitation and is not likely to contain buried prehistoric archaeological remains. However, should archaeological resources be encountered at any time during proposed project activities, all ground disturbance in the vicinity of the discovery should be halted until a qualified archaeologist can assess the potential significance of the resource.

If human remains are unearthed, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will 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 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

## TABLE OF CONTENTS

MANAGEMENT SUMMARY.....	i
INTRODUCTION.....	1
SYNERGY OIL FIELD SITE.....	1
“PUMPKIN PATCH” SITE.....	4
LCWA SITE.....	4
CITY MARKETPLACE MARSH (33 ACRES) SITE.....	5
SETTING.....	6
NATURAL.....	6
GEOLOGY.....	6
PALEOENVIRONMENT.....	7
CURRENT LAND USE.....	8
CULTURAL.....	8
IDENTIFICATION METHODS.....	14
RECORDS SEARCH.....	14
RESEARCH.....	14
FIELD SURVEY.....	14
NATIVE AMERICAN HERITAGE COMMISSION AND NATIVE AMERICAN CONSULTATION.....	14
RESULTS.....	16
RECORDS SEARCH.....	16
RESEARCH.....	17
SURVEY.....	17
RECOMMENDATIONS.....	19
SIGNIFICANCE CRITERIA.....	19
EVALUATION.....	19
SUMMARY.....	20
REFERENCES.....	22

## APPENDICES

A: Resumes

B: Department of Parks and Recreation Forms from Records Search

C: Project Area Photographs

D: Department of Parks and Recreation Forms for LSA-LYC1501-S-1 and LSA-LYC1501-S-2

## FIGURES AND TABLES

### FIGURES

Figure 1: Project Location and Vicinity .....	2
Figure 2: Project Properties .....	3
Figure 3: Survey Coverage .....	18

### TABLE

Table A: Cultural Resources within 0.5 Mile of the Project Area.....	16
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## INTRODUCTION

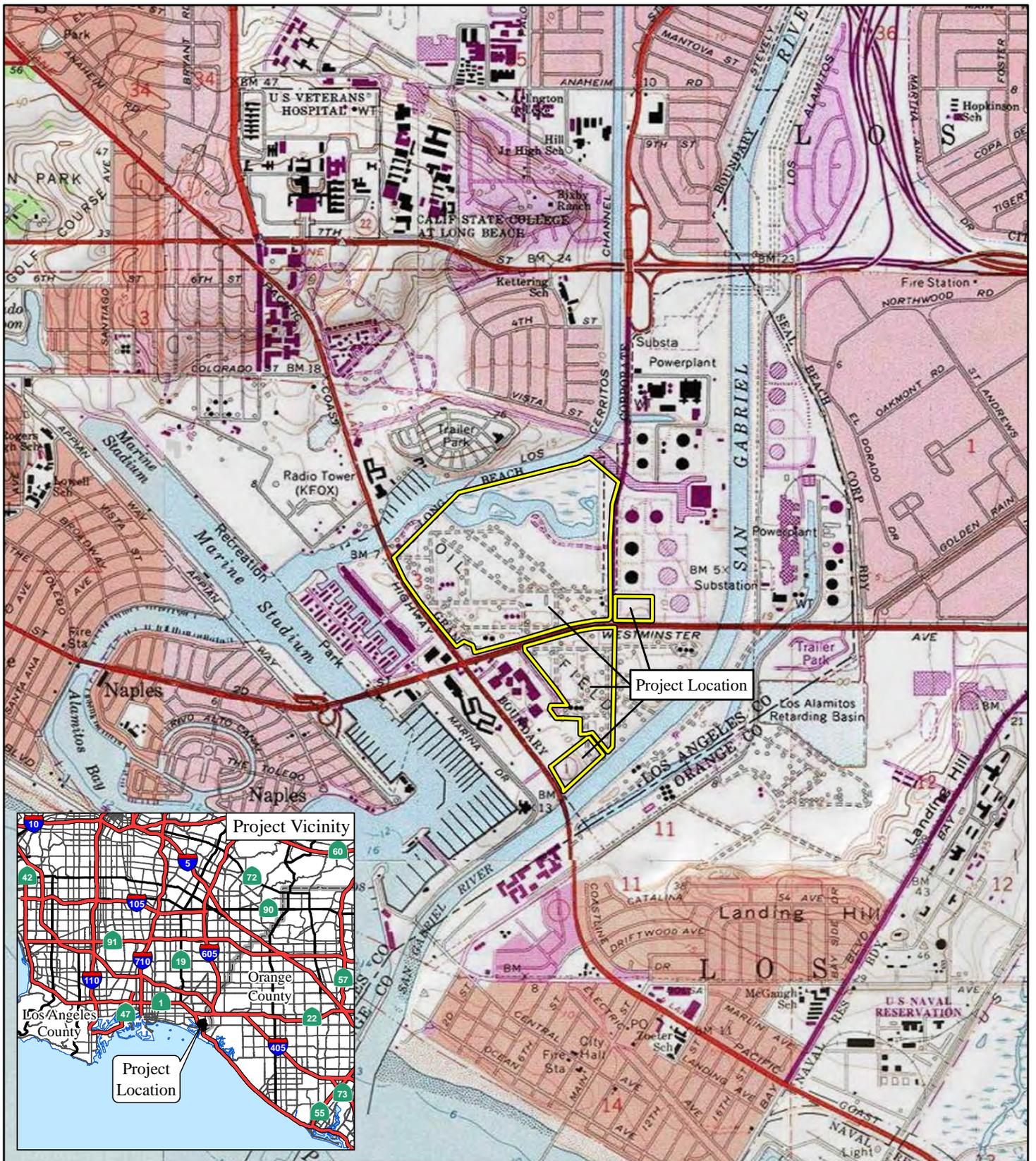
LSA Associates, Inc. (LSA) conducted an archaeological resources assessment for the Los Cerritos Oil Consolidation and Wetland Restoration Project (project) located in the City of Long Beach (City), County of Los Angeles, California. Specifically, the project area is located in Section 3 and in unsectioned portions of Township 5 South, Range 12 West, and is depicted on the United States Geological Survey (USGS) *Los Alamitos, California*, 7.5-minute topographic quadrangle map, San Bernardino Baseline and Meridian (USGS 1981; Figure 1). The assessment included a records search, field survey, and report, which were completed in December 2015 and January 2016. Revisions to the report were made in April 2016, August 2016, and January 2017.

The purpose of the assessment was to determine whether “historical resources”, which are cultural resources eligible for listing in the California Register of Historical Resources (California Register), may be present within the proposed project area, whether they might be impacted by development of the project, and to make recommendations to mitigate any potential impacts to cultural resources. This assessment was prepared to ensure project compliance with all applicable State and City regulations and guidelines regarding cultural resources, including the California Environmental Quality Act ([CEQA]; as amended January 1, 2015): Public Resources Code (PRC), Division 13 (Environmental Quality), Chapter 2.6, Section 21083.2 (Archaeological Resources) and Section 21084.1 (Historical Resources); the Guidelines for CEQA (as amended December 1, 2014), California Code of Regulations Title 14, Chapter 3, Article 5, Section 15064.5 (Determining the Significance of Impacts on Historical and Unique Archaeological Resources).

The project consists of four sites: the Synergy Oil Field Site (154 acres [ac]), the “Pumpkin Patch” Site (7 ac), the Los Cerritos Wetlands Authority (LCWA) Site (5 ac), and the City Marketplace Marsh (33 Acres) Site (33 ac; Figure 2). The Synergy Oil Field Site is located at 6433 East 2<sup>nd</sup> Street between Pacific Coast Highway to the west, the Los Cerritos Channel to the north, Studebaker Road to the east, and 2<sup>nd</sup> Street to the south. The “Pumpkin Patch” Site is located at 6701 East Pacific Coast Highway at the northeast corner of the intersection with the San Gabriel Channel. The LCWA Site is located at the northeast corner of the intersection of Studebaker Road and Westminster Boulevard. The City Marketplace Marsh (33 Acres) Site is located between 2<sup>nd</sup> Street to the north and the San Gabriel River to the south.

### SYNERGY OIL FIELD SITE

On the Synergy Oil Field Site, the project proposes to establish a wetlands mitigation bank and public access trail on the northerly approximately 78 ac of the 154 ac Synergy Oil Field (formerly known as the Bixby Oil Field), to implement a wetlands restoration plan on the southerly approximately 72 ac of the Synergy Oil Field, and to construct public access improvements, including a parking lot on existing disturbed areas and converting an existing building for use as a visitors’ center on the remaining approximately 4 ac of the Synergy Oil Field. The mitigation bank provides for the phased restoration and permanent preservation of restored wetlands. The project also proposes the removal of



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LEGEND

 Project Location



0 1000 2000  
FEET

SOURCE: USGS 7.5' Quad - Long Beach (1978), Los Alamitos (1981), and Seal Beach (1981), CA

E:\LYC1501\GIS\ProjectLocation\_USGS.mxd (4/6/2016)

FIGURE 1

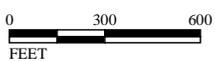
*Los Cerritos Wetlands Restoration  
and Oil Production Project  
Project Location and Vicinity*



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- Synergy Site
- City Marketplace Marsh (33 Acres) Site
- LCWA Site
- Pumpkin Patch Site



SOURCE: Bing Maps (2014); Glenn Lukos Associates (2015)

E:\LYC1501\GIS\ProjectProperties.mxd (4/6/2016)

FIGURE 2

*Los Cerritos Wetlands Restoration  
and Oil Production Project  
Project Properties*

37 oil wells from the southerly 72 ac. The Synergy Oil Field is owned and operated by Beach Oil Minerals Partners.

### **“PUMPKIN PATCH” SITE**

In order to facilitate the restoration of the approximately southerly 72 ac on the Synergy Oil Field and construction of the public access improvements, the warehouse structures currently on the Synergy Oil Field will be removed and a portion of the oil production activities currently being conducted at the Synergy Oil Field will be relocated to the 7 ac property located at 6701 E. Pacific Coast Highway (commonly known as the “Pumpkin Patch”). The office uses currently occupying the Bixby building on the Synergy Oil Field site would be relocated to a new approximately 5,200-square-foot (sf) two-story office building constructed on the Pumpkin Patch Site. Other proposed site developments include an approximately 9,750 sf of storage/warehouse, parking for 47 cars, drilling of up to 50 new wells (both oil production and water injection wells) and associated production facilities. The height of the office building is 35 feet (ft) and the storage/warehouse is 22 ft.

In addition to the 50 wells, two tanks will be constructed on the site: a 3,000-barrel tank for storing “wet oil” that is 30 ft in diameter and 24 ft high; and a 2,000-barrel “skim oil” tank that is 24 ft in diameter and 24 ft high. There is an existing oil well on the Pumpkin Patch Site that will be used on a temporary basis as a test well to confirm the feasibility of oil production operations on the Pumpkin Patch.

A 22 ft high screen wall will be built on the perimeter of the Pumpkin Patch Site. Vehicular access to the site will be from Studebaker Road. The structures will be set back 30 ft from Pacific Coast Highway and perimeter landscaping will be provided along Studebaker, Pacific Coast Highway, and the San Gabriel River Channel.

The Pumpkin Patch Site is owned by Beach Oil Minerals Partners. The Pumpkin Patch Site is currently vacant, except for one operating oil well. It is currently used for seasonal sales of pumpkins and Christmas trees.

Although the Pumpkin Patch Site is approximately 7 ac in size, the oil production operations will be located on 5 ac of the site closest to Pacific Coast Highway. The northeasterly 2 ac portion of the site will be retained as open space and used to provide a 100 ft buffer from the coastal wetland habitat area at the eastern edge of the site.

### **LCWA SITE**

The project proposes the drilling and operation of up to 70 wells on a 5 ac parcel owned by LCWA located at Studebaker and Westminster (“LCWA Site”) to replace the oil production facilities currently on the Synergy Oil Field and the City’s 33 Acres. The LCWA Site is currently undeveloped and is used on a temporary lease basis for equipment storage and staging. Due to the geologic conditions at the Synergy Oil Field (i.e., the Newport-Inglewood Fault traverses the site), the oil field is divided between two operating areas, one on each side of the fault. The oil field operations north of the fault extract oil from a subterranean oil horizon that cannot be accessed from Pumpkin Patch, but can be accessed from the LCWA Site.

The wells will be a combination of oil production well and water injection wells. In addition to the oil production area, the project proposes to construct an elevated piperack, a 21,000-barrel sales oil tank (35 ft in height and 75 ft in diameter), and a 5,000-barrel injection water tank (35 ft in height and 32 ft in diameter). The site will also include a 15–20 ft high ground flare, and 3 gas turbines for on-site electrical power generation. A 22 ft high screen wall will be built on the perimeter of the LCWA Site. The project proposes to improve the existing driveway off of Studebaker Road to a 30 ft entrance/exit, and to construct a secondary 30 ft access from Westminster Boulevard. Perimeter landscaping will be provided along the Studebaker Road and Westminster Boulevard frontage.

### **CITY MARKETPLACE MARSH (33 ACRES) SITE**

The project proposes the removal of approximately 21 oil wells that are currently being operated on the 33 Acres, City-owned property located at Westminster and Shopkeeper Road. The wells are being operated pursuant to a Surface Use Release Agreement and Grant of Easements (“Surface Use Agreement”) between the City and LCW Oil Operations, LLC, and the wells would be removed and abandoned in accordance with the terms of the Surface Use Agreement, which requires abandonment to a standard acceptable to the State of California Division of Oil, Gas and Geothermal Resources at the time of abandonment and suitable for the City’s intended use for public open space.

The field survey was conducted by LSA archaeologists Terri Fulton and Phil Fulton. Ms. Fulton authored this report. LSA Principal Deborah McLean, M.A., RPA, oversaw all work associated with the project and reviewed this report. Their qualifications are summarized below, and their resumes are included in Appendix A.

**Deborah McLean, M.A., RPA**, has worked as an archaeologist in Southern California since 1985. As a Principal/Archaeologist at LSA, she manages LSA’s Irvine and Riverside Cultural/Paleontological Groups and oversaw all aspects of the completion of this report.

**Terri Fulton** is the task manager for this project. Ms. Fulton has a B.A. in Anthropology and 32 years of archaeological experience throughout the western U.S., including work throughout California, Oregon, Idaho, Washington, Wyoming, Arizona, and New Mexico. Ms. Fulton managed the completion of all tasks associated with the completion of this report and assisted with the background research, field reconnaissance, logistics, and report preparation.

**Phil Fulton** is the field director for this project. Mr. Fulton has a B.A. in Environmental Studies and 30 years of archaeological experience throughout the western U.S., including work throughout California, Oregon, Idaho, Washington, Wyoming, Arizona, and New Mexico. He compiled the background research, conducted field reconnaissance, and assisted in the report preparation.

## SETTING

### NATURAL

The natural setting of the project vicinity is presented based on the underlying theoretical assumption that humans and human societies are in continual interaction with their physical environment. Being an integral and major part of the ecological system, humans respond to the limits imposed by the environment through technological and behavioral adaptation and altering the environment to produce more favorable conditions. Locations of archaeological sites are based on the constraints of these interactions, whether it is proximity to a particular resource, topographical restrictions, or shelter and protection. Sites will also contain an assemblage of artifacts and ecofacts consistent with the particular interaction.

### GEOLOGY

The proposed project is located at the northern end of the Peninsular Range geomorphic province, a 900-mile (mi) long northwest-southeast-trending structural block that extends from the tip of Baja California to the Transverse Ranges and includes the Los Angeles Basin (Norris and Webb 1976). The total width of the province is approximately 225 mi, with a maximum landbound width of 65 mi (Sharp 1976). It contains extensive pre-Cretaceous (>65 million years ago [mya]) igneous and metamorphic rocks covered by limited exposures of post-Cretaceous sedimentary deposits.

Specifically, the project is located within the Los Angeles Basin (Basin) adjacent to and northwest of the current channel of the San Gabriel River where it meets the Pacific Ocean. The Basin is a broad, gently sloping alluvial plain (gradient of 0.5 to 1 percent). It is bound on the north and northwest by hills and mountains of the Northern Peninsular and Transverse Ranges and on the south and west by the Pacific Ocean. The current sediment source for the Basin is several rivers that flow into it. These include the Los Angeles, San Gabriel, and Santa Ana Rivers. As the gradient of the Basin is quite shallow, these rivers have not always flowed in their current channels; rather, they have flowed across the entire Basin, depositing sediment evenly across the plain. Approximately 20 million years ago, the Basin was an undersea basin that collected mud and sand from the land and plankton from the sea. Over the 20-million-year period, the Basin was filled with approximately 20,000 ft of sediment. This sediment is the source for much of the rich oil reserves in the area.

Pointi and Lajoie (1992) report that beneath the Long Beach area there is an almost continuous sequence of sediments (mostly marine) from the late Miocene through the late Pleistocene. This sequence records several sea level changes and a shallowing of the water beginning in the Pliocene. Pointi and Lajoie (1992) report that due to movement along the faults, Signal Hill (located approximately 3 mi to the northwest) rose to its current height of 360 ft in a span of 220,000 years, which is an average uplift rate of approximately 0.56 millimeter (mm) per year. This is a much faster uplift rate than the 0.35 mm per year for the Palos Verdes Hills (located 6 mi to the west). Signal Hill is part of a northwest-trending alignment of low hills and mesas that extends across the Los Angeles Coastal Plain between Newport Beach and Beverly Hills. This alignment of local highlands is the

topographic expression of uplift, deformation, and faulting that has occurred along the Newport-Inglewood structural/fault zone (Barrows 1974). The Newport-Inglewood structural/fault zone is immediately adjacent to the project area.

According to Saucedo et al. (2003), Artificial Fill is present over the entire project area, likely placed during development of the oil field, construction of the nearby marina, and channelization of the San Gabriel River. Artificial Fill consists of sediments that have been removed from one location and transported to another by humans. The transportation distance can be a few feet to dozens of miles, and composition is dependent on the source. Artificial Fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and even plant material.

## PALEOENVIRONMENT

Although the Holocene climate has in general been considerably more stable than the late Pleistocene climate (Ditlevsen et al. 1996; GRIP 1993), California has experienced relatively rapid changes in climatic and environmental conditions over the past 10,000 years. The economic and settlement history of Southern California can largely be understood as a response to the challenges and opportunities posed by this environment. For example, many archaeologists have linked periods of poor environmental conditions to the emergence of complex social organization among some Southern Californian hunter-gatherer societies. Two variables, sea levels and the incidence of drought and flooding, played significant roles in determining the distribution and abundance of important coastal and inland resources.

The sequence of changes in coastlines and habitats has been well-documented for the Southern California coast (Gallegos 1987; Inman 1983; Masters and Gallegos 1997; Nardin et al. 1981). Sea levels rose rapidly following the end of the Ice Age. Along the southern coast during the early Holocene, sea level rise created many lagoons and cobble beaches. Rising sea levels produced rich estuarine habitats and rich nearshore habitats, including rocky reefs and kelp beds. After 5000 before the present (BP), the rate at which sea levels rose slowed considerably. The stabilization of sea levels may have initially increased the diversity of lagoon habitats, providing niches for both rocky shore species and sandy beach species. By 3500 BP, however, sediments may have filled in most of the lagoons and led to the transport of sand along the outer coast (Masters and Gallegos 1997). Only a few lagoons, such as San Diego Bay and Peñasquitos Lagoon, persisted. These changes transformed the productivity of the coast, but they occurred gradually compared to the rapid fluctuations in rainfall that Southern California has experienced.

Before the rivers were channelized, periodic drought and flooding may have been a common but unpredictable feature of life. For example, the Los Angeles and Santa Ana Rivers have captured the flow of the San Gabriel River at times in the recent past, causing extensive floods. Such floods would disrupt ordinary riparian flora and fauna.

The climate has generally become drier since the last Ice Age (Axelrod 1981; Heusser and Sirocko 1997). High resolution data sets attest to considerable environmental variability during the late Holocene (e.g., deMenocal 2001; Jones and Kennett 1999; Kennett and Kennett 2000). Alternations between wetter and drier periods occurred during the last 750 years, with intervals lasting approximately 40–160 years on average (Ingram et al. 1996). The climate was generally dry between AD 500 and AD 800, between AD 980 and AD 1300, and between AD 1650 and AD 1750 (Boxt

et al. 1999; Stine 1994). Severe droughts probably afflicted Southern California around AD 1000 to 1100 and AD 1250 to 1300 (deMenocal 2001; Stine 1994).

## CURRENT LAND USE

The project area consists of functioning oil fields, a temporary construction yard, and a vacant lot that is used for seasonal enterprises such as a pumpkin patch and a Christmas tree lot.

## CULTURAL

### Prehistoric Chronologies

The development of a regional chronology marking the major stages of cultural evolution in the Southern California area has been an important topic of archaeological research. In general, cultural developments in Southern California have occurred gradually and have shown long-term stability; thus, developing chronologies and applying them to specific locales has often been problematic. Southern California researchers have used changing artifact assemblages and evolving ecological adaptations to divide regional prehistory into four stages. Wallace (1955; 1978) and Warren (1968) have developed the two chronologies most commonly cited. Wallace (1955) uses major cultural developments to divide area prehistory into four time periods, or “cultural horizons:” the Early Period, the Milling Stone Period, the Intermediate Period, and the Late Period. The following overview is based primarily on Wallace’s chronology, which has been revised slightly by Koerper (1981) and Koerper and Drover (1983).

Neither of the chronologies cited begin prior to the terminal Pleistocene circa 12,000 BP. While more sites in North and South America are beginning to be accepted as dating to earlier times, none earlier than 12,000 BP have been documented within the project region.

**The Early Period (Prior to 6000 BC).** The Early Period (also known as the Hunting Period) covers the interval from the first presence of humans in Southern California until postglacial times (5500 BC to 6000 BC). Artifacts and cultural activities from this period represent a predominantly hunting culture; diagnostic artifacts include extremely large, often fluted bifaces associated with use of the spear and atlatl. In Southern California, important Early Period sites have been found near prehistoric Lake Mohave and along the San Dieguito River (Wallace 1955, 1978:27; Moratto 1984:81, 93–99). Early sites dating to circa 10,000 years ago and older have also been documented in Santa Barbara County and the northern Channel Islands (Erlandson et al. 1996; Lebow et al. 2007; Rockwell and Stafford 2003). Evidence at sites dating to the terminal Pleistocene and early Holocene increasingly suggests that the early inhabitants of coastal California relied on marine resources and seeds, possessing an adaptation quite distinct from the big-game hunters of the Great Plains (Rick et al. 2001).

**The Milling Stone Period (6000 BC–3000 BC).** The transition from the Early Period to the Milling Stone Period is marked by an increased emphasis on the processing of seeds and edible plants and is estimated to have occurred between 6000 BC and 3000 BC. According to Wallace (1978:28), wild seeds and edible plants formed the primary food source during this period, with only limited use of

shellfish and faunal resources; plant resources were processed using deep-basined mills and handstones, hence the term Milling Stone Period. Milling Stone Period settlements were larger and were occupied for longer periods of time than those of the Early Period, and mortuary practices included both flexed and extended burials as well as reburials. Grave offerings were few, although rock cairns were sometimes placed over the bodies (Wallace 1955:192, Table 1; 1978:28).

Diagnostic artifacts recovered from Milling Stone Period archaeological sites include metates, manos, and large projectile points, indicating the continued use of darts and atlatls. Among the more enigmatic artifacts from this period are discoidals and cogged stones. Discoidals are round to ovoid groundstones with flat or slightly convex faces and edges, while cogged stones are discoidals with serrated edges resembling the teeth on gears. Both types of artifacts appear sometime around 4000 BC and are dated to the Milling Stone Period; their use remains unclear, and they may have had a ceremonial function (Moratto 1984:149–150).

Wallace (1978:28) offers two possible scenarios to explain the cultural changes that occurred during the Milling Stone Period; quite possibly, both processes occurred simultaneously in different geographical areas. In some regions (such as western San Diego County), Milling Stone Period cultures may have evolved gradually as the earlier hunting peoples learned to exploit a wider variety of food resources; in other areas, people migrating from interior regions may have introduced the technology for processing seeds and plant foods to coastal areas. Evidence for such migrations may be found in climatic data. The onset of the Milling Stone Period corresponds to an interval of warm, dry weather known as the Altithermal; during the Altithermal, many of the inland lakes disappeared, and the region became less habitable, perhaps triggering the coastal migrations believed to have occurred at this time (Wallace 1978:28).

**The Intermediate Period (3000 BC–AD 500).** By approximately 3000 BC, the inhabitants of Southern California were exploiting a diverse array of food resources, including seeds and edible plants, shellfish, fish, and mammals. Along the coast, a greater reliance was placed on marine food resources as evidenced by the recovery of near-shore and pelagic (deep-water) fish remains from archaeological sites. In the interior regions such as the Mojave Desert, the return of cooler, moister conditions led to increased populations along streams and lakes. Hunting appears to have been the primary food-gathering activity in these interior areas; the best-known sites in this region are located at Pinto Basin in northeastern Riverside County (Moratto 1984:153; Wallace 1978:30–31).

Intermediate Period sites are characterized by the appearance of the mortar and pestle (although the mano and metate continued in use). In inland and desert sites, the projectile points are generally still large (dart point-sized), but small Rose Spring projectile points appear late in this period. The use of the mortar and pestle may indicate an increased reliance on acorns as a food source, while the small projectile points suggest that the bow and arrow was in limited use (Elsasser 1978:55; Wallace 1978:30–31). Intermediate Period burials were generally by interment in a flexed position, face down, although a site at Big Tujunga Wash in the San Fernando Valley contained both reburials under stone cairns and cremations (Elsasser 1978:55; Wallace 1955:193–195).

**The Late Period (AD 500–1769).** The Late Period, which began in approximately AD 500, witnessed a number of important cultural developments in Southern California, including the

concentration of larger populations in settlements and communities, greater utilization of the available food resources, and development of regional subcultures. Cremation was the preferred method of burial during the Late Period, and elaborate mortuary customs with abundant grave goods were common. Other cultural traits diagnostic of the Late Period include increased use of the bow and arrow, steatite containers, circular shell fishhooks, asphaltum (as an adhesive), bone tools, and personal ornaments of bone, shell, and stone (Bean and Smith 1978; Elsasser 1978:56; Moratto 1984:159; Wallace 1955:195). Because many of these artifacts are also recovered from earlier periods, other indicators must sometimes be used to distinguish Late Period sites. Among the most useful of these indicators are lithic artifacts manufactured from obsidian. Obsidian from Obsidian Buttes near the Salton Sea was used sporadically in the manufacture of lithic artifacts until sometime after AD 1000, when its use in the Basin became much more common (Hall 1988).

A number of the cultural elements found in Southern California during the Late Period have been linked to the migration of Uto-Aztecan speaking peoples from the Great Basin; these traits include the manufacture of ceramics, the use of small triangular arrow points, and interment by cremation. The date of the Uto-Aztecan migration (which probably occurred in several successive waves over an extended period of time) remains uncertain; it has been dated as early as 2000 BC and as late as AD 700. Linguistic evidence suggests a date of AD 1–500 (Kroeber 1976:574–580; Moratto 1984:161). The latter part of the Late Period (AD 1200–1769) is often given its own period, the Protohistoric Period (Moratto 1984).

### **The Gabrielino**

The Gabrielino Indians were the first inhabitants to the area known today as the Los Angeles Basin. The name *Gabrielino* refers to the Uto-Aztecan (Tatic) speaking Native Americans who lived throughout the present Los Angeles and Orange County areas and who were historically affiliated with Mission San Gabriel Archangel. Today, some of the Gabrielino prefer to call themselves by their traditional name, *Tongva* (McCawley 1996). Gabrielino territory included the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers; several smaller intermittent streams in the Santa Monica and Santa Ana Mountains; all of the Los Angeles Basin; the coast from Aliso Creek north to a point between Topanga and Malibu Creeks; and the islands of San Clemente, San Nicolas, and Santa Catalina (Kroeber 1976:620–621; Bean and Smith 1978:538; McCawley 1996:3).

The Gabrielino Indians practiced a hunter-gatherer lifestyle and lived in permanent communities near the convergence of two or more environmental zones or habitats (Bean and Smith 1978). Commonly chosen sites included areas near rivers, streams, and inland watercourses; sheltered coastal bays and estuaries; and the transition zone delineating prairies and foothills. Important considerations influencing the location of habitation sites included the presence of a stable food supply and some measure of protection from flooding. Community populations generally ranged from 50–100 inhabitants, although larger settlements may have existed. Gabrielino communities located in the interior regions maintained permanent geographical territories or use areas that may have averaged 30 square miles. However, it is unclear whether this pattern was similar for coastal settlements, where food resources may have been more plentiful. In addition to these permanent settlements, the Gabrielino occupied temporary campsites that were used on a seasonal basis for hunting, fishing, gathering, and processing of wild plant foods and shellfish (McCawley 1996:25). Hunting was primarily for rabbit and deer, while collecting included plant foods such as acorns, buckwheat, chia,

berries, and fruits. They also hunted waterfowl along the coast and near bays and estuaries (Hudson 1971).

Politically, each Gabrielino community comprised one or more kinship groups (known as lineages), which were united under the leadership of a *tomyaar*, or chief. Each lineage comprised several related nuclear families; membership in a lineage was traced through the father, and allowed an individual to claim use rights over the territory owned by that group. The *tomyaar* was the focus of the religious and secular life of the community and served as chief administrator, fiscal officer, war leader, legal arbitrator and religious leader (Bean and Smith 1978; Harrington 1933). The *tomyaar* was aided in his duties by a Council of Elders, which consisted of the leaders of the lineages residing in the community as well as other wealthy and influential individuals. Council positions were hereditary, and descended from father to son. Shamans also played an important role in Gabrielino society, serving as the principal doctors, psychotherapists, philosophers and intellectuals; often, the *tomyaar* himself was an important and influential shaman (Bean and Smith 1978).

The Gabrielino culture was characterized by an active and elaborate system of rituals and ceremonies. Rituals included individual rites of passage, village rites, seasonal ceremonies, and participation in the widespread *Chinigchinich* cult. The cult of the culture hero, *Chinigchinich*, was observed and recorded by Franciscan Friar Gerónimo Boscana during his residences at Missions San Juan Capistrano and San Luis Rey (Harrington 1933; Boscana 1933). The *Chinigchinich* cult is believed to have originated at the village of Povuu'nga, which was located in the vicinity of California State University at Long Beach (CSULB).

## History

The first recorded contact between the Gabrielino and Europeans occurred in 1542, when the Cabrillo Expedition arrived at Santa Catalina Island (Wagner 1941). On the mainland, the first documented contact between the Gabrielino and Europeans occurred in 1769, when an expedition led by Gaspar de Portolá crossed present-day Los Angeles and Orange Counties (Bean 1968:36–38; Bolton 1927). The following paragraphs are adapted primarily from Hoover et al. (1962:11) except where referenced.

On June 14, 1769, Gaspar de Portolá left San Diego as the leader of an overland expedition to find a trail to the known port of Monterey in order to establish the second of Alta California's missions (Cleland 1962:xi). The trail the expedition used was originally a series of paths used by natives in various regions. Today, this trail, running between missions of Alta California, is known as El Camino Real, the "Kings Road."

Portolá entered what is now Los Angeles County on July 30, 1769, camping along the Los Angeles River near the site of Bassett. The following day, the expedition crossed the Lexington Wash near El Monte, camping in an open space south of the original location of Mission San Gabriel. On August 2, the small expedition reached the spot on the Los Angeles River occupied by the inhabitants of the Gabrielino village of Yang-na. The encampment is believed to have been near North Broadway and its junction with the Los Angeles River northeast of downtown Los Angeles. The hill, around which the Los Angeles River bends to the south at Elysian Park, is a principal landmark noted by the diarists on the journey. Because the day was the Franciscan feast day of Our Lady of the Angels, the river was named Rio de Nuestra Senora la Reina de los Angeles de Porciuncula (i.e., The

River of Our Lady the Queen of the Angels of Porciuncula [Porciuncula was a church where St. Francis of Assisi prayed]) (Chapman 1967:210)].

Upon leaving the Elysian Park area, the Portolá expedition passed the La Brea tar pits and camped near two springs, where they were joined by friendly native Gabrielinos. This location was likely near Sawtelle. From here the expedition went as far west as the beach west of Santa Monica before returning to its encampment and then proceeding north through a pass in the mountains and into the San Fernando Valley. McCawley (1996:56–57) adds that several other Gabrielino communities existed in this area. The native community of Ma awnga was also located in the area, on Rancho de los Feliz, near what is now Griffith Park. Geveronga is listed in the San Gabriel baptismal records as adjoining the Pueblo of Los Angeles. The community of ‘Ochuunga (wild rose) was also located approximately 3 mi from San Gabriel, on the road from San Gabriel to Los Angeles.

Within 2 years, Mission San Gabriel Archangel was founded (September 8, 1771) and was the fourth of the missions (Hoover et al. 1962:12; McCawley 1996:189). It was originally planned for the mission to be constructed on the banks of the Santa Ana River, but it was relocated to a bluff overlooking the Rio Hondo. This original location of the mission, which is now known as Mission Vieja, is also thought to be near to or on the site of the Gabrielino village of Isanthacag-na (also spelled Isankangna, Isantcangna, and Isantka-nga). The village has been mentioned in several accounts; however, its location has never been positively identified. Because it is not mentioned as a Rancheria of origin in any of the Mission baptismal books, it has been postulated that it is a location place name rather than a village (Greenwood et al. 1989).

The original buildings of Mission Vieja dating to the Franciscan occupation were constructed of wood and bundled tule similar to the dwellings of the native Gabrielino. The padres may have envisioned this first location of the Mission San Gabriel as temporary, since the mission system was still in an exploratory phase (Greenwood et al. 1989). In 1776, 4 years and 8 months after its founding, Mission Vieja was abandoned due to flooding. A new mission was built on higher land in the City of San Gabriel, approximately 5 mi north of the original site (Greenwood et al. 1989). The present church was erected following the earthquake of 1812, which demolished Mission San Juan Capistrano. Mission San Gabriel has survived secularization as well as the influx of American immigrants and stands today as a symbol of early missionary activity and life. It was also in 1776 that Mission San Juan Capistrano was established (Engelhardt 1922). Although this mission lay outside the Gabrielino territory, many of its converts were drawn from the Gabrielino community of Povuu’nga, which was partially located on the present-day property of CSULB. The last baptism at the village of Povuu’nga was recorded in 1805 (Merriam 1968:134–135). In 1797, Mission San Fernando became the second mission to be founded within the territory traditionally assigned to the Gabrielino (Engelhardt 1927a, 1927b).

The Franciscans’ goal in founding the missions was to convert the Indians to the Spanish Catholic faith and incorporate them into the lower strata of Spanish society. However, the final result of missionization was the destruction of the Gabrielino culture and society. Two important factors contributed to this decline: first, many of the youngest, healthiest, and most productive Gabrielino were removed from the Gabrielino economy when they entered the Mission System; second, the introduction of highly infectious European diseases, for which the Gabrielino had no immunities, led to epidemics and reduced birth rates, which further disrupted traditional Gabrielino political, social, and economic institutions. As a result, most of the traditional Gabrielino communities were

depopulated, and the survivors became assimilated into the Mexican-American communities of Los Angeles and Orange Counties. During the 1920s, anthropologist A.L. Kroeber was unable to locate a group claiming Gabrielino heritage, although he did interview several individuals of Gabrielino ancestry. Currently, the Gabrielino are not a federally recognized tribe, although there are individual spokespeople of Gabrielino descent (Rosenthal et al. 1991; Weinroth 1994), and five separate groups that claim Gabrielino descent. At least two of these groups are currently in the process of seeking federal recognition.

### **The Synergy Oil Field**

The history of oil production in the vicinity of the City of Long Beach and specifically the Synergy Oil Field has been compiled and is presented in *Historic Resources Assessment: Los Cerritos Oil Consolidation and Wetland Restoration Project, City of Long Beach, County of Los Angeles, California* (Heck 2017), which was also prepared for this project.

## IDENTIFICATION METHODS

### RECORDS SEARCH

The records search was conducted at the South Central Coastal Information Center (SCCIC) on December 4, 2015. The records search included the project area and a 0.5 mi radius around it. The SCCIC houses the pertinent archaeological and historic site and survey information necessary to determine whether cultural resources are known to exist within the project area. The records search included a review of all recorded historic and prehistoric archaeological sites within the 0.5 mi radius of the project area as well as a review of known cultural resource survey and excavation reports. In addition, the California Historical Resources Information System (CHRIS) (which includes the National Register of Historic Places [National Register], the California Register of Historical Resources [California Register], California Historical Landmarks, California Points of Historical Interest, and various local historical registers) was examined. In addition, historic aerial photographs taken in 1952, 1963, and 1972 were examined. The 1896 USGS *Downey Sheet, California*, topographic map was also examined.

### RESEARCH

LSA reviewed the Phase I Environmental Site Assessment for the Pumpkin Patch Property (Advanced Environmental Concepts, Inc. [AEC] 2015).

### FIELD SURVEY

On December 15 and 16, 2015, LSA archaeologists Terri Fulton and Phil Fulton conducted a pedestrian survey of the 199 ac project area. Where possible, the survey was conducted by walking parallel transects spaced by approximately 30 ft. The remainder of the project area was surveyed opportunistically wherever exposed ground surface was visible.

### NATIVE AMERICAN HERITAGE COMMISSION AND NATIVE AMERICAN CONSULTATION

On May 2, 2016, a search of the Sacred Lands File was requested of the Native American Heritage Commission (NAHC). The NAHC responded on May 5, 2016, and stated that, "Sites have been recorded in the Los Alamitos Quadrangle of the APE you provided that may be impacted by the project."

Assembly Bill 52 (AB 52) requires Native American consultation for any project subject to CEQA that circulates a Notice of Preparation, Negative Declaration, or Mitigated Negative Declaration on or after July 1, 2015. The City of Long Beach is conducting Native American consultation per AB 52.

Senate Bill 18 ([SB 18], Burton 2005) requires Native American consultation for any project that will process a zoning amendment. The City of Long Beach is conducting Native American consultation per SB 18.

## RESULTS

### RECORDS SEARCH

The results of the records search indicated that one cultural resource has been recorded within the project area, and nine cultural resources have been recorded within 0.5 mi of the project area (see Table A; also Appendix B). The resource that is recorded within the project area is the historic Bixby Ranch field office building (19-187657). There have been 38 cultural resources studies conducted that include the project area, resulting in approximately 98 percent of the project area having been previously surveyed.

**Table A: Cultural Resources within 0.5 Mile of the Project Area**

Resource Number	Resource Description	NRHP
19-000272	In 1960, a human skull was found in marine deposits at the mouth of the San Gabriel River north of Seal Beach. Deposition was determined to be “accidental” and not associated with any other skeletal remains.	Not evaluated.
19-000702	In 1974, shell was located 600 meters northwest of Los Cerritos Channel. The site record notes that the possibility of its destruction is “very high” due to pending condominium construction.	Not evaluated.
19-001821	In 1990, shell midden was located south and east of the intersection of Studebaker and Westminster Avenue. No artifacts were observed.	Not evaluated.
19-186115	Various recordation dates: the Long Beach Marine Stadium	Eligible
19-186880	In 2004, the Alamitos Generating Station Fuel Oil Tank Farm was recorded.	Not eligible.
19-186924	In 2003, the Southern California Edison Lake Hughes 12 kV Distribution Circuit was recorded.	Not evaluated.
30-000256	In 1969, a prehistoric site was recorded that had been previously destroyed circa 1958 due to a housing development.	Not evaluated.
30-000257	In 1969, a prehistoric site was recorded that had been previously destroyed circa 1958 due to a housing development.	Not evaluated.
30-001473	In 1996, a shell deposit that was part of the Hellman Ranch complex was recorded.	Not evaluated.

kV = kilovolt

NRHP = National Register of Historic Places

The review of historic aerial photographs, taken in 1952, 1963, and 1972, showed that the area was a fully developed and functioning oil field during those times, with the Pumpkin Patch Site consisting of vacant land (National Environmental Title Research, LLC 2016). The 1896 USGS *Downey Sheet, California*, topographic map shows the entire project area, including the now elevated Pumpkin Patch Site, as consisting of wetlands.

## RESEARCH

In 1960 the Pumpkin Patch property was leased from the Bixby Ranch Company by City Dump and Salvage, Inc. of Long Beach, California for the creation of the City Dump and Salvage Landfill #2. During September 1960, City Dump and Salvage, Inc. received a permit from the County of Los Angeles, Industrial Waste Division, to accept wastes in the eastern half of the site at a minimum of 300 feet from Pacific Coast Highway. The waste accepted at the facility was required to comply with the following criteria: (1) non-water soluble, non-decomposable inert solids; (2) ordinary household and commercial refuse, including decomposable organic refuse and scrap metal; and (3) garbage and market refuse. The disposal of liquids, semi-liquids, and hazardous classified waste was not permitted. City Dump and Salvage, Inc. commenced waste acceptance operations at the site in mid-1960 (prior to receiving an approved permit) and ceased operations in early 1961 after filling the landfill to its permitted capacity (AEC 2015).

“During March and April 1987, the IT Corporation (IT) drilled and sampled soil borings at the site to identify the varying depths of the refuse burial and to evaluate if there were hazardous concentrations of chemicals impacting soil and/or groundwater. The results of their sampling indicated that the landfill is typically rectangular-shaped, encompasses the eastern half of the property, and that the refuse in the central portion of the burial area extends to a depth of 30-feet below ground surface (bgs). The refuse in the landfill consists of newspaper, plastic, metal, wood, glass, plant debris, rubber tubes and tires, and green waste” (AEC 2015).

## SURVEY

The project area generally consists of open land with currently operational oil features (e.g., wells, tanks, pipelines, roads, and occasional utility buildings) and non-operational well pads, structures, and pipelines. The entire project area has been disturbed by oil field operations and contains sparse to dense introduced vegetation and native coastal wetlands vegetation. Ground visibility during the survey was poor to excellent depending on vegetation; oil field operation structures; and the fluctuating tidal flow, which when at high tide created large areas of standing water. These factors limited the accessible survey area to approximately 80 percent. The areas that could not be physically surveyed due to standing water or impenetrable vegetation are depicted in Figure 3. Photographs of the project area are included in Appendix C.

No prehistoric archaeological resources were observed during the pedestrian survey.

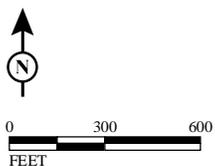
A surficial trash scatter containing miscellaneous industrial and domestic debris was observed extending along the southern edge of Steamshovel Slough in the Synergy Oil Field Site. The trash scatter was recorded on California Department of Parks and Recreation (DPR) forms Series 523 as LSA-LYC1501-S-1 (Appendix D). Artifacts noted appear to date from the 1930s to approximately the 1970s. This trash scatter is associated with the historic oil field that encompasses the project area. No evidence of the buried City Dump and Salvage Landfill #2 was observed on the Pumpkin Patch property. However, based on the research that revealed its presence, it was recorded on DPR forms as LSA-LYC1501-S-2.



LSA

LEGEND

-  Synergy Site
-  City Marketplace Marsh (33 Acres) Site
-  LCWA Site
-  Pumpkin Patch Site
-  Areas not physically surveyed



SOURCE: Bing Maps (2014); Glenn Lukos Associates (2015)  
 E:\LYC1501\GIS\Cultural\_SurveyCoverage.mxd (5/5/2016)

FIGURE 3

*Los Cerritos Wetlands Restoration  
 and Oil Production Project*  
 Survey Coverage

## RECOMMENDATIONS

### SIGNIFICANCE CRITERIA

The California Register is an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. A resource may be listed as a historical resource in the California Register if it meets any of the following National Register criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. 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.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

### EVALUATION

One cultural resource was encountered during the archaeological survey for the project. This resource is LSA-LYC1501-S-1, a surficial trash scatter containing miscellaneous industrial and domestic debris extending along the southern edge of Steamshovel Slough in the Synergy Oil Field Site. Artifacts noted appear to date from the 1930s to approximately the 1970s.

The trash scatter contains a wide diversity of artifacts, none of which is unique, and most of which are consistent with the sort of trash that would be deposited in association with the oil field business. The trash scatter is a typical example of a common resource type; it represents minimal, if any, archaeological data; and, therefore, does not qualify as a "historical resource" under CEQA.

Specifically, the trash scatter does not appear to be: (1) associated with events that have made a significant contribution to California's history or cultural heritage; (2) associated with the lives of persons important to California's past; (3) embody any distinctive characteristics of a type period, region or method of construction, represent the work of an important individual, or possess high artistic values; and (4) is not likely to yield information important in prehistory or history.

Because it does not meet any of the above criteria, cultural resource LSA-LYC1501-S-1 is not considered eligible for listing in the California Register.

One resource was identified through research as being located on the Pumpkin Patch property. This resource is the City Dump and Salvage Landfill #2 (LSA-LYC1501-S-2, Appendix D). Research indicates this site is buried and it was not relocated during the survey. However, based on the research

findings, the City Dump and Salvage Landfill #2 is a typical example of a common resource type; it represents minimal, if any, archaeological data; and, therefore, does not qualify as a “historical resource” under CEQA.

Specifically, the landfill does not appear to be: (1) associated with events that have made a significant contribution to California’s history or cultural heritage; (2) associated with the lives of persons important to California’s past; (3) embody any distinctive characteristics of a type period, region or method of construction, represent the work of an important individual, or possess high artistic values; and (4) is not likely to yield information important in prehistory or history.

Because it does not meet any of the above criteria, LSA-LYC1501-S-2 is not considered eligible for listing in the California Register.

## SUMMARY

No prehistoric cultural resources were identified in the project area by the records search or pedestrian survey. A surficial trash scatter containing miscellaneous industrial and domestic debris was observed extending along the southern edge of Steamshovel Slough in the Synergy Oil Field (LSA-LYC1501-S-1). Artifacts noted appear to date from the 1930s to approximately the 1970s. This trash scatter is associated with the historic oil field that encompasses the project area. Site LSA-LYC1501-S-1 was evaluated per CEQA guidelines as ineligible for inclusion in the California Register. It need not be considered further for this or future projects within the Synergy Oil Field property.

No evidence of the buried City Dump and Salvage Landfill #2 (LSA-LYC1501-S-2) was observed on the Pumpkin Patch property during the pedestrian survey. However, landfill contents may be encountered during excavation for this project. Site LSA-LYC1501-S-2 was evaluated per CEQA guidelines as ineligible for inclusion in the California Register. It need not be considered further for this or future projects within the Pumpkin Patch property.

The project area is in an estuary/wetland environment that does not appear to be an environment suitable for prehistoric occupation due to the high water table; thus, the probability of encountering buried prehistoric archaeological resources is low. The Pumpkin Patch Site is shown on the 1896 USGS *Downey Sheet, California*, topographic map as consisting entirely of wetlands, whereas today, it is elevated above the floodplain. The entire area along the Pacific Coast Highway in this region must consist of introduced fill. As such, the potential of encountering intact archaeological resources is negligible. However, should archaeological resources be encountered at any time during construction activities, all ground disturbance in the vicinity of the discovery should be halted until a qualified archaeologist can assess the potential significance of the resource.

If human remains are unearthed, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will 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 48 hours of

notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

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## **APPENDIX A**

### **RESUMES**



## EXPERTISE

Archaeology

Cultural Resources Project Management

Technical Review of Documents

Principal QA/QC

Cultural Resources Assessments per:

- NEPA
- CEQA
- NHPA Section 106
- Caltrans

## EDUCATION

California State University, Fullerton, M.A., Anthropology, specialization in Archaeology, 2001.

Illinois State University, Normal, Illinois, B.A., Anthropology, 1973.

## PROFESSIONAL RESPONSIBILITIES

As Principal for the LSA Irvine Cultural and Paleontological Group, Ms. McLean is responsible for coordinating and directing archaeological projects in compliance with the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), the National Historic Preservation Act (NHPA) Section 106, and the California Department of Transportation (Caltrans). Ms. McLean is responsible for departmental management and staffing. She provides Principal oversight and review of cultural and paleontological documents produced by the Irvine office and assists with review of documents produced by other LSA offices. Ms. McLean also oversees laboratory operations and prepares technical reports. Ms. McLean has been employed by LSA since 1993, has worked in a supervisory capacity for much of that time, and has been a Principal since 2003.

## FIELD AND LABORATORY EXPERIENCE

Ms. McLean's field experience includes 8 years of prehistoric and historic archaeology in California; 2 years of historic archaeology in several New England states and Texas (underwater archaeology in the Gulf of Mexico); and prehistoric archaeology in the Midwest, including work at Cahokia Mounds State Park, a World Heritage site. She has laboratory experience with prehistoric and historic archaeology collections from various parts of the United States, including extensive work with California archaeological and paleontological collections.

## PROJECT EXPERIENCE

Selected projects include:

### **Bena Sanitary Landfill Project Kern County, California**

Ms. McLean served as Principal in Charge for a cultural resources study of a portion of the Bena Sanitary Landfill in Kern County. As such, she provided project management and coordination and LSA Principal QA/QC for the final report. The Bena Sanitary Landfill (Facility), owned by the County and managed by the Kern County Waste Management District (District) consists of the landfill and surrounding areas that are currently open space. The District requested a cultural resources study of an approximately 9-acre portion of the property in order to determine whether any cultural resources that may be present could be impacted by future landfill operations. The study consisted of a records search conducted at the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS), located at California State University, Bakersfield, a field survey, and a report detailing the findings. The study was conducted in November 2014.

## **PROFESSIONAL EXPERIENCE**

Principal/Archaeologist, LSA Associates, Inc., Irvine, California, 1993–Present.

Archaeology and Paleontology Laboratory Manager, John Minch and Associates, 1992–1993.

Assistant Project Archaeologist, Gallegos & Associates, 1991.

Logistical Field Coordinator, INFOTEC Research, Inc., 1991.

Staff Archaeologist, Chambers Group, Inc., 1989–1991.

Archaeological Writer/Editor, Scientific Resource Surveys, 1988.

Archaeologist/Assistant to the Principal Investigator, Center for Anthropological Studies, University of California at Santa Barbara, 1986.

Realtor, First Hawaiian Realty, 1977–1984.

Staff Archaeologist, Historic Preservation Division, Denver Service Center, National Park Service, 1975–1976.

## **PRESENTATIONS**

Society for Historical Archaeology (Williamsburg, Virginia), “Artifact Analysis Results – the Noble Adobe – Site 33-14135,” January 20, 2007.

Pacific Coast Archaeological Society (Irvine, California), “Excavation of CA-ORA-269, a San Joaquin Hills Rock Shelter,” October 14, 2004.

California State University, Fullerton, Cultural Resource Management Class, “Cultural Resource Management,” April 14, 2004.

## **PROJECT EXPERIENCE (CONTINUED)**

### **Competitive Power Ventures Sentinel Palm Springs, California**

LSA was retained by Sierra Research to provide archaeological and paleontological monitors, biological surveys, and a Designated Biologist for the Competitive Power Ventures (CPV) Sentinel Project in Palm Springs. LSA also arranged for a Native American monitor. Tasks were completed per the requirements of the California Energy Commission Final Decision (December 2010). This power project comprised trenching for the installation of an approximately 2.6-mile-long natural gas line. Ms. McLean served as Project Manager for this project and, as such, was responsible for hiring a Native American monitor, coordinating the archaeological/paleontological monitoring and biological survey efforts, overseeing the day-to-day progress of the project, providing monthly status reports, and preparing final reports. All personnel involved attended a Worker Environmental Awareness Program (WEAP).

### **enXco Development Inc.**

#### **Kern and Los Angeles Counties, California**

Ms. McLean oversaw cultural resource assessments for the 158-acre Goose Lake Soleil Project in Kern County; the 107-acre Smyrna Timmerman Project in Kern County; the 80-acre Smyrna Grayson Project in Kern County; the 61-acre Elk Hills Project in Kern County; the 40-acre Delis Farms Project in Kern County; and the 40-acre Little Rock-Pham Project in Los Angeles County. As such, she provided project management and coordination and LSA Principal QA/QC for the final report. enXco Development intends to develop solar energy facilities at the project locations. All of the work was completed in 2010.

### **Eagle Crest Project**

#### **Kern County, California**

LSA conducted CEQA-level Paleo monitoring on the 215-acre project area several miles east of Bakersfield knowing that fossils would be found but with little expectation of finding archaeological resources. Items were collected using Global Positioning System (GPS) location. When monitoring stopped, a total of 116 GPS collection points had been recorded, each representing a feature, or one or more collected artifacts. When mapped, these points identified 5 separate prehistoric sites and 4 prehistoric/historic isolated finds. Sites contained primarily lithic material, although three of the sites lacked ground stone. Three fire-affected rock features were found at two of the sites. Official State of California Department of Parks and Recreation (DPR) site record forms were completed and submitted to the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield for permanent primary and trinomial site numbers.

## **PROFESSIONAL MEMBERSHIPS**

Society for Historical Archaeology

Society for California Archaeology

Pacific Coast Archaeological Society

## **PROFESSIONAL REGISTRATIONS/ CERTIFICATIONS/ APPROVALS**

Register of Professional Archaeologists (RPA)

Orange County Certified Archaeologist

San Diego County Approved Archaeological Consultant

## **PROFESSIONAL PUBLICATION**

Test Excavation of the Charles and Mildred Washington Gravesite. Magazine of the Jefferson County, West Virginia Historical Society XLIII:31-33, 1977.

## **SPECIAL TRAINING**

Riverside County Cultural Sensitivity Training Course, March 2007, 2009, and 2011.

Land Use Planning and the Protection of Native American Cultural Places, Senate Bill 18 Local and Tribal Intergovernmental Consultation presented by the Governor's Office of Planning and Research and the Association of Environmental Professionals, Orange County Chapter, September 2006.

## **PROJECT EXPERIENCE (CONTINUED)**

Ms. McLean served as Principal in Charge for this project. As such, she provided project management and coordination and LSA Principal QA/QC for the final report.

### **Frank R. Bowerman Landfill Orange County, California**

This ongoing contract includes archaeological and paleontological resource monitoring, provisions for handling discoveries in either discipline, and biological services to assist in improving natural habitat within the landfill. Ms. McLean served as cultural resources task manager and oversaw archaeological and paleontological monitoring. As such, she provided project management and coordination and LSA Principal QA/QC for the final report.

### **Interstate 710 Corridor Environmental Impact Report/ Environmental Impact Statement Los Angeles County, California**

LSA is leading the environmental team preparing the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Interstate 710 (I-710) Corridor Project. The project proposes to improve I-710 in Los Angeles County from Ocean Boulevard in the City of Long Beach to State Route 60 (SR-60), a distance of approximately 18 miles. Primary issues of concern include air quality/public health, community impacts, environmental justice, and traffic safety. In addition to preparing the EIR/EIS, LSA is responsible for preparing technical studies, including the Historic Property Survey Report (HPSR), Paleontological Identification/Evaluation Report (PIR/PER), Community Impact Assessment (CIA), and Natural Environment Study (NES). As Cultural Task Manager, Ms. McLean has overseen the completion of all cultural tasks and the preparation of all cultural documents, including a complete HPSR and a Finding of Effect.

### **Caltrans District 12 On Call (Contract Nos. 12A1304 and 12A1144) Orange County, California**

LSA was under contract to Caltrans District 12 for two consecutive on-call environmental services contracts (Contract Nos. 12A1144 and 12A1304). Under Contract No. 12A1144, Ms. McLean was responsible for projects such as the Laguna Canyon Road (State Route 133 [SR-133]) Improvements and State Route 91 (SR-91) Widening from State Route 55 (SR-55) northbound to SR-91 westbound through the Tustin Avenue Interchange. Under Contract No. 12A1304, Ms. McLean served as the Cultural Resources Task Manager for on-call task orders such as State Route 22 (SR-22)/West Orange County Connection Phase II, Seal Beach Boulevard, State Route 74 (SR-74) Emergency Drainage Outlet Repair, SR-91 Widening (SR-55 to State Route 241 [SR-241]),

### **SPECIAL TRAINING (CONTINUED)**

Senate Bill 18 Consultations presented by the Governor's Office of Planning and Research, the Native American Heritage Commission, the California Tribal Business Alliance, Hanson Bridgett Marcus Vlahos Rudy, LLP, and the City of Riverside, December 2005.

An Overview of the Senate Bill 18 Consultation Process Used by the Morongo Band of Mission Indians presented by the Association of Environmental Professionals, Inland Empire Chapter, hosted by Britt Wilson, October 2005.

Expert witness testimony training provided by the California Energy Commission, June 2000.

Analysis and Preservation of Historic Bridges presented by the American Society of Civil Engineers, 1999.

Introduction to Federal Projects and Historic Preservation Law presented by the Advisory Council on Historic Preservation and the GSA Interagency Training Center, 1994.

Cultural Resources Compliance Workshop presented by the State of California Department of Transportation, 1994.

Cultural Resource Management (unofficial attendance) presented by the U.S. Army Corps of Engineers, 1991.

SCUBA diver under the sanctions of N.A.U.I.

### **PROJECT EXPERIENCE (CONTINUED)**

SR-91 Westbound Widening (SR-55 to Tustin Avenue), State Route 73 (SR-73) Basin Storm Water Mitigation/Slope Stability, SR-74 Safety Project (Shoulder Widening), and Culvert Maintenance on Interstate 5 (I-5) and SR-74.

#### **Southern California Gas Company Pipeline Replacement Avila Beach, California**

As Project Manager, Ms. McLean was responsible for the archaeological excavations and monitoring at Site CA-ORA-56 that took place to prepare pipeline bore holes and identify the location of utilities for replacement of an existing gas line. Excavation was conducted by LSA, and under the direction of LSA, monitoring was conducted by Cultural Resource Management Services (CRMS), a subconsultant. Representatives of the Obispeño Chumash provided Native American monitors. The site is the ethnohistorically recorded village of *Sejato*, the largest Chumash village north of Point Conception. The archaeological work at the site identified an intact Intermediate Period deposit and the first recorded instance of an intact Late Period deposit at this site. Controlled excavation of bore holes limited disturbance to site deposits, and monitoring ensured that noncontrolled excavation occurred outside of known site deposits. The project resulted in a successful and timely replacement of the pipeline with minimal disturbance to the important archaeological site. Ms. McLean provided daily updates to SCG and reviewed the report, which was accepted by SCG with no revisions required.

#### **Interstate 10/Cedar Avenue Interchange San Bernardino County, California**

As Task Manager for cultural resources for reconstruction of the interchange and associated improvements, Ms. McLean directed and coordinated completion of a full realm of cultural resource tasks with Caltrans District 8. Tasks included a records search, archaeological and architectural field surveys, historical research, an HPSR, an Archaeological Survey Report (ASR), a Historical Resources Evaluation Report (HRER), and an Area of Potential Effects (APE) Map.

#### **Interstate 10/Cherry Avenue Interchange San Bernardino County, California**

This project was a cooperative study to evaluate alternatives for widening the Cherry Avenue/I-10 overcrossing and modifying the ramp connections. Ms. McLean was Task Manager for cultural resource-related issues and documents. She coordinated completion of all tasks with the Caltrans District 8 Heritage Resources Coordinator and the

### **PROFESSIONAL VOLUNTEER ACTIVITIES**

California State University,  
Fullerton, Roundtable  
Discussion on Curriculum  
Issues Pertinent to Cultural  
Resource Management,  
February 14, 2008.

Society for California  
Archaeology Annual Meeting  
(Ventura), Volunteer  
Organizer, 2006.

Society for California  
Archaeology Annual  
Meeting (Riverside),  
Volunteer Organizer, 2004.

### **PROJECT EXPERIENCE (CONTINUED)**

Architectural Historian. Ms. McLean ensured that a records search for the APE and surrounding environs was completed. She prepared the APE map with the assistance of the Architectural Historian.

Ms. McLean coordinated the cultural resources survey, which included an examination of the APE for archaeological sites as well as an evaluation of extant buildings and structures. All appropriate Caltrans reports were prepared by Ms. McLean, with the exception of the HRER, which was completed by the Architectural Historian.

#### **State Route 91 Corridor Improvement Project Riverside, California**

Ms. McLean was the Cultural Resources Task Manager for this project. She oversaw the completion of all cultural resources tasks, including the records search, Native American consultation, and the HPSR, which included the APE map, the ASR, and the HRER. Due to the complexity of this project, design changes resulted in revisions to various aspects of the cultural resources tasks. Ms. McLean was actively involved with the supervision of all additional work and revisions.

#### **State Route 91 Improvements from Brockton Avenue/Mary Street to Interstate 215 Initial Study/Environmental Assessment Riverside, California**

LSA prepared environmental technical studies and an Initial Study/Environmental Assessment (IS/EA) for construction of a single high-occupancy vehicle (HOV) lane adjacent to the median in each direction. The project will widen SR-91 between Brockton Avenue/Mary Street and University Avenue. Ms. McLean served as Task Manager for all cultural resources tasks, and she completed the HPSR and ASR.

#### **State Route 91/Van Buren Boulevard Interchange Initial Study/ Environmental Assessment Riverside County, California**

LSA prepared environmental technical studies and an IS/EA for ramp improvements and widening of the Van Buren Boulevard overcrossing within the City of Riverside. Key environmental issues included cultural resources, community impacts, visual impacts, and hazardous waste. All appropriate Caltrans cultural resources reports were prepared by Ms. McLean.

#### **Interstate 10/Citrus Avenue Interchange San Bernardino County, California**

Improvements will consist of widening the Citrus Avenue bridge to three through lanes in each direction with two left-turn lanes to the I-10 on-ramps. Ms. McLean was the Task Manager for cultural resources-related issues and documents. She prepared the APE map and coordinated all other cultural resources work, such as the archaeological survey and historic architecture evaluation.

## **PROJECT EXPERIENCE (CONTINUED)**

### **Interstate 10/Etiwanda Avenue Interchange San Bernardino County, California**

Ms. McLean served as Task Manager for all cultural resources-related issues and documents. She coordinated completion of all tasks with the Caltrans District 8 Heritage Resources Coordinator. Ms. McLean ensured that a records search for APE and surrounding environs was completed and prepared the APE map with the assistance of the LSA Graphics Department. Ms. McLean also completed the cultural resources survey, which included an examination of the APE for archaeological sites. All appropriate Caltrans reports were prepared by Ms. McLean.

### **Level (3) Long Haul Fiber Optic Project Santa Barbara, California**

As Project Manager, Ms. McLean was responsible for hiring 30 professional archaeologists (B.A., Anthropology level) to monitor all construction activities along the 205-mile San Luis Obispo-to-Ventura portion of the Level (3) Fiber Optic Project. She also hired three Native American groups (Owl Clan, Diane Napoleone & Associates, and Santa Ynez Chumash Band) to monitor alongside the archaeologists. No impacts to cultural resources were to occur due to Level (3) project construction. In order to eliminate impacts to cultural resources, all previously unidentified cultural resources identified during monitoring were documented, and documentation for previously recorded resources was updated. Several survey and testing reports were prepared, as well as one human reburial report. When completed, nearly 60 cultural resource sites were documented for this project. All studies and recommendations were overseen and subject to review by the California Public Utilities Commission (CPUC). LSA also assisted in preparing the Final Report. Ms. McLean provided peer review for all documentation. She also coordinated the very detailed accounting process and was the point of contact for the client.

### **West Vista Way Widening San Diego County, California**

As Task Manager for cultural resources, Ms. McLean directed and coordinated completion of a full realm of cultural resource tasks with Caltrans District 11. Tasks included a records search, archaeological and architectural field surveys, historical research, an HPSR, ASR, HRER, and an APE map. The National Register of Historic Places (National Register)-eligible prehistoric site CA SDI-16,502 was within the APE. Ms. McLean directed the recordation of the habitation site that included bedrock milling features, pottery, and marine shells. The site was avoided and preserved, resulting in substantial time and cost savings.

### **Laguna Canyon Road (State Route 133) Improvements Orange County, California**

As Task Manager, Ms. McLean coordinated the completion of surveys, Extended Phase I Surveys, archaeological evaluation (testing), laboratory analysis, an HPSR, ASR, Historic Study Report (HSR), Extended Phase I Survey Report, a Research Design for the Archaeological Evaluation, and the Archaeological Evaluation Report (AER). The study was conducted for nine historic and prehistoric cultural resources. An important aspect of testing was that it identified prehistoric occupation and shellfish collection over a period of 7,000 years at sites in the canyon, as well as describing historic occupation at some of the sites.

**PROJECT EXPERIENCE (CONTINUED)**

**California Department of Transportation On-Call Contracts for Storm Water Damage Repair Projects (Contract Nos. 06A0073 and 06A0169)**

**Santa Barbara, San Luis Obispo, and Monterey Counties, California**

From 1997 to 1999, Ms. McLean conducted approximately 10 storm damage repair surveys in several California coastal counties. This work consisted of conducting a records search and survey of the storm-damaged roadway and then writing a positive or negative HPSR for the area. Positive surveys also entailed completing State of California Department of Parks and Recreation (DPR) forms with detailed site information, the purpose of which was to avoid impacts to cultural resources due to road repair work.

**State Route 710 North Study**

**Los Angeles County, California**

Ms. McLean is the Cultural Resources Task Manager for this project, overseeing not only the cultural tasks being completed by LSA but also those being completed by a subconsultant.

**Alameda Corridor-East Construction Authority Grade Separations**

**Los Angeles, California**

LSA was recently awarded the environmental services contract for the Alameda Corridor-East Construction Authority Grade Separation projects. Ms. McLean is serving as the Cultural Resources Task Manager for this contract.

**San Diego's Capital Improvement Program**

**San Diego, California**

As part of the City of San Diego's Capital Improvement Program to replace old cast iron water mains and sewer lines in various areas of the City of San Diego, Ms. McLean was the Project Manager for work efforts that included conducting record searches, authoring reports, and providing recommendations concerning monitoring and the potential to impact "unique" cultural resources during project construction. Areas investigated included Southeast San Diego, Encanto, Clairemont Mesa, the Point Loma Peninsula Area Community, Downtown, and Mid-city Community Planning Areas. The reports identified all prehistoric and historic sites, including historic buildings and historic addresses sufficiently close to the project to be impacted. Reports were submitted to the City of San Diego Engineering and Capital Projects (ECP) Environmental Project Manager, in accordance with the City's Historical Resource Guidelines.

**Sandholdt Road Bridge**

**Moss Landing, California**

As Task Manager for this project, Ms. McLean visited the project site and completed the Native American consultation, HPSR, and ASR. The bridge and several buildings were evaluated for National Register eligibility. Ms. McLean oversaw the completion of the Bridge Evaluation and the HRER/Historic Architectural Survey Report (HASR). This project included consultation with the Monterey County Historical Resources Review Board.

**Bouquet Canyon Road Bridge Widening**

**Santa Clarita, California**

As Task Manager for cultural resources, Ms. McLean completed all cultural resource tasks, including an HPSR, an APE map, an ASR, and an HASR–Memorandum of Understanding (MOU) short form.

## **PROJECT EXPERIENCE (CONTINUED)**

### **City of Beaumont**

#### **Beaumont, California**

Ms. McLean served as the Project Manager for the City of Beaumont projects. The City of Beaumont consulting firm, Urban Logic Consultants, Inc., contracted with LSA to complete two projects for the City of Beaumont. The first was the Noble Creek Bridge project, which involved the demolition and replacement of the Noble Creek Bridge; and the second was the Beaumont Class II Bike Lane. Both the Federal Highway Administration (FHWA) and Caltrans were involved with these projects. LSA completed all cultural resources tasks in consultation with and per the requirements of FHWA and Caltrans. For the Noble Creek Bridge project, these included a records search, Native American consultation, archaeological field survey, HPSR, and ASR. Tasks for the Beaumont Class II Bike Lane Project included a records search, Native American consultation, the archaeological field survey, and the architectural field survey. LSA also completed the HPSR and ASR, and completed a Finding of Effect for the San Timoteo Canyon Schoolhouse (a National Register-eligible property).

### **Long Beach Sports Park Master Plan and Environmental Impact Report**

#### **Long Beach, California**

LSA was the lead consultant on a team of seven firms conducting the master planning and environmental documentation for a proposed commercial sports park in Long Beach. The project will be constructed on a blighted and contaminated site of approximately 55 acres. The project includes pay-for-play league softball and soccer sports facilities, as well as a skate park and youth golf training center. LSA worked closely with the City of Long Beach and the consultant team to resolve issues related to site planning, geologic fault and soil constraints, historic and continuing oil production on the site, engineering issues related to grading and storm water detention, potential human health risks associated with contaminated soils, and United States Environmental Protection Agency (EPA) Brownfields funding requirements for redevelopment of the site. LSA prepared the Draft EIR for the proposed project, as well as an Addendum to the EIR to address a revised site plan. The Addendum was certified by the City Council in the spring of 2006. LSA also assisted the City with issues related to wetlands permitting and mitigation implementation and tracking. The project was managed with a strong emphasis on team communication, and schedule and budget monitoring tools have been used to track team progress over time. Ms. McLean served as the Cultural Resources Task Manager, overseeing all aspects of historical research, surveying, and report preparation.

### **California State University, Long Beach Foundation Project**

#### **Long Beach, California**

LSA is currently preparing an EIR for a proposed commercial project located on a site that is part of the California State University, Long Beach (CSULB) Foundation's Regional Technology Center (the Technology Park) in Long Beach. The proposed project includes development of a commercial retail building approximately 125,000 square feet in size on the 9.88-acre site, including a total of 486 on-site parking spaces to be provided in surface parking lots. Currently, the project site is developed with an existing building and carport approximately 21,000 square feet in size. Demolition of the existing buildings and carport on site is required in order to construct the proposed project. Primary issues of concern to be addressed in the EIR will include traffic and circulation (including truck traffic), land use, air quality, climate change, and noise impacts. Cultural resources are also being considered, as this area was used ethnohistorically. Ms. McLean is the Cultural Resources Task Manager for this project. As such, she is responsible for the quality of the research, surveys, and report that are prepared for the project.

**PROJECT EXPERIENCE (CONTINUED)**

**Boronda Road Bridge over Carmel River**  
**Carmel Valley, California**

As Task Manager for this project, Ms. McLean visited the project site and completed the Native American consultation, HPSR, and ASR. Both the bridge and a building were evaluated for National Register eligibility. Ms. McLean oversaw the completion of the bridge evaluation and the HRER/HASR.

**Seventh Standard Road**  
**Kern County, California**

As Cultural Resources Task Manager, Ms. McLean oversaw all cultural resources tasks, including the records search; Native American consultation; archaeological and architectural field surveys; and completion of all Caltrans reports, including an HPSR, ASR, and HRER. She also directed and participated in the archaeological field survey.

**Proposed Material Borrow Sites for the State Route 58 Mojave Freeway**  
**Kern County, California**

This project involved coordination with the Bureau of Land Management (BLM) because the borrow sites were located on land under its jurisdiction. Ms. McLean assisted with the BLM coordination and participated in the survey. She completed several site records and isolate forms as a result of the survey, prepared the ASR, and assisted with the HPSR and HSR.

**Interstate 5/Lomas Santa Fe Drive Interchange Improvements**  
**San Diego, California**

Ms. McLean served as Task Manager for cultural resources and directed and coordinated completion of all required cultural resources tasks. Tasks included Native American consultation, a records search, historical research, an archaeological and architectural field survey, an HPSR, ASR, and a bridge evaluation.

**Parkside Estates**  
**Huntington Beach, California**

Ms. McLean served as the Project Manager for the survey and surface collection of two potential sites at Bolsa Bay. Specialized surface testing was designed to evaluate the validity of previously recorded sites CA-ORA-1308 and -1309, adjacent to the Cogged Stone site, CA ORA-83/86/144. This work, under California Coastal Commission review, was conducted for the Shea Homes Parkside Estates parcel.

**San Joaquin Marsh**  
**Orange County, California**

Ms. McLean served as Project Manager for the survey and testing of a portion of CA ORA-121 Locus C for an Irvine Ranch Water District Marsh Enhancement Program. Additional testing and laboratory analysis were conducted, and a final report for CA-ORA-121 Locus C (ORA 287) was completed under CEQA guidelines as a continuation of the same project.

**Puente Hills Resource Management Plan**  
**Puente Hills, California**

As Cultural Supervisor for the Resource Management Plan (RMP) prepared by LSA, Ms. McLean oversaw all cultural research, field studies, and reports for the RMP. The main components of the RMP included Cultural Resources Management, Habitat Restoration, Fuel Modification Management, a Trails Plan, and an Interpretive Element.

**PROJECT EXPERIENCE (CONTINUED)**

**Natural Treatment System, Irvine Ranch Water District  
Irvine, California**

Ms. McLean served as the Project Manager for the records search, survey, and report of findings for more than 20 proposed Natural Treatment System sites. Coordination with the Bureau of Reclamation was required.

**Carnation Villas  
Newport Beach, California**

Ms. McLean served as the Project Manager for the records search, survey, and report of findings for this proposed sea cliff multifamily dwelling. Research identified potential significant paleontological resources.

**Saint Margaret's School  
San Juan Capistrano, California**

Ms. McLean was the Project Manager for the records search and monitoring of this proposed new school building. Monitoring occurred in a vicinity of high-density archaeological sites. No new sites were identified.

**State Route 74 Improvement (Interstate 15/Seventh Street) Environmental Reevaluation  
Riverside County, California**

Ms. McLean served as Task Manager for cultural resources of an Environmental Reevaluation for compliance with CEQA and NEPA requirements for the widening and realignment of an 8.5-mile portion of SR-74. LSA's technical studies addressed biological resources issues and were in compliance with requirements of the federal Endangered Species Act (FESA), Clean Water Act, and California Fish and Game Code.

**Sanborn Road Improvements Project  
Monterey County, California**

Ms. McLean served as a Task Manager for cultural resources for this project. LSA provided environmental services to Wood Rodgers, which was under contract to the City of Salinas Department of Public Works, to address the potential environmental impact of improving Sanborn Road in the City of Salinas. Improvements included spot widening to provide operational improvements such as turn and acceleration lanes; installing curbs, gutters, and sidewalks; and constructing Americans with Disabilities Act (ADA) compliant pedestrian access ramps at the curb returns. Environmental technical studies prepared by LSA for this project in support of a Categorical Exemption for CEQA and a Categorical Exclusion for NEPA (CE/CE) included the following: Cultural Resources, Biological Resources, Noise Impact, and a Hazardous Waste Initial Site Assessment (ISA). The City approved the CEQA CE and Caltrans approved the Programmatic CE for NEPA clearance.

**State Route 60/Lemon Interchange  
Diamond Bar, California**

As Task Manager for cultural resources, Ms. McLean was responsible for the HPSR in support of an IS/EA prepared by LSA. The IS/EA was prepared consistent with the requirements of CEQA and NEPA. Primary issues associated with the proposed interchange included local traffic and circulation and potential effects on a school near the proposed interchange location.

## **PROJECT EXPERIENCE (CONTINUED)**

### **Kaiser Medical Office Building**

#### **Lake Forest, California**

LSA was contracted to provide biological and paleontological services for the Kaiser Medical Office Building project. A Paleontological Resources Impact Mitigation Program (PRIMP) was developed for the project. LSA provided paleontological monitoring, which included the salvage of several Miocene-age marine fossil specimens. LSA also conducted a nesting bird survey of the entire study area and, subsequently, monitoring for nesting birds. Ms. McLean served as the Principal in Charge for this project.

### **Drake-Chavez Greenbelt Project**

#### **Long Beach, California**

LSA is currently preparing a Mitigated Negative Declaration (MND) for the Drake Park Project located in the City of Long Beach. The proposed project includes the development of two lighted sports fields with an adjacent parking lot, a restroom facility, and a greenbelt area with pedestrian trails, all located adjacent to the existing Drake Park. The site is surrounded by light industrial and residential uses. Technical studies to be prepared by LSA in support of the MND include cultural, traffic and parking, noise, air quality/climate change, and biological studies. The MND will address both construction and operation of the two new sports fields. Ms. McLean is the Cultural Resources Task Manager for this project. She oversees all cultural tasks, including historical and prehistorical research, surveying, and report preparation.

### **Del Obispo Street Widening from Alipaz Street to Paseo Adelanto**

#### **San Juan Capistrano, California**

LSA has fulfilled its professional services agreement with the City of San Juan Capistrano. Work included on-call cultural resources monitoring for the Del Obispo Widening Project. Ms. McLean served as Principal in Charge, attending one kickoff meeting and providing project oversight and Principal review (Quality Assessment/Quality Control [QA/QC]) of the monitoring report.

### **Tesoro Road Extension Project**

#### **Orange County, California**

LSA completed archaeological testing for the Tesoro Road Extension Project at Sites CA-ORA-1106, -1559, 1560, and -1669, located within Rancho Mission Viejo. Work included a surface survey as well as excavation of shovel test pits and excavation units. Artifacts were collected during the survey and excavation, and were processed in the LSA laboratory. An excavation report was generated for this project. Subsequent work for this project included preparation of an HPSR, which included an APE map and an ASR. Currently, consultation continues with the Transportation Corridor Agencies, Caltrans, and FHWA. Ms. McLean serves as Principal and Project Manager for this project, attending all consultation meetings, reviewing all work, and providing project oversight.

## **EXAMPLES OF BRIDGE PROJECTS**

- Bouquet Canyon Road Bridge over the Santa Clara River Project HPSR, City of Santa Clarita, Los Angeles County, California, 2001.
- West Barton Road Bridge (#54C 379) Replacement Project HPSR, City of Grand Terrace, San Bernardino County, California, 2000.
- Washington Street Bridge Widening Project Archaeological and Historical Assessment for the City of La Quinta, Riverside County, California, 1999.

### **PROJECT EXPERIENCE (CONTINUED)**

- Boronda Road Bridge HPSR, Carmel Valley, Monterey County, California, 1999.
- Ninth Street Bridge Project HPSR, City of Modesto, Stanislaus County, California, 1999.
- Replacement of the City Creek Bridge on Fifth Street HPSR, City of Highland, San Bernardino County, California, 1999.
- Sandholdt Road Bridge HPSR, Moss Landing, Monterey County, California, 1999.
- Carona Avenue Bridge Replacement Project HPSR, City of Corning, Tehama County, California, 1997.
- Apela Drive Bridge HPSR, Riverside County, California, 1994.
- Cram School Site and Tentative Tracts 13551 and 15554 Archaeological and Historical Investigations, East Highlands, San Bernardino County, California, 1994.
- Washington Street Bridge Project HPSR, 1994.

### **SELECTED REPORTS**

Ms. McLean has authored and coauthored over 120 technical reports for LSA. The following are selected reports:

*Cultural Resource Monitoring for the Del Obispo Street Undergrounding of Overhead Utilities and Widening, City of San Juan Capistrano, Orange County, California, 2009.*

*Cultural Resources Memorandums prepared for the Supplemental Historic Property Survey Report for the Gene Austry Way (Interstate 5) Overcrossing Structure, 2009.*

*Archaeological Monitoring Report for Chino Hills Corporate Park, City of Chino, San Bernardino County, California, 2006.*

*Cultural Resources Monitoring Report for Demolition of the Property at 3303 Huntington Drive, Los Angeles County, California, 2006.*

*Historic Property Survey Report for the City of Colton Bike Lane Project, Cities of Colton and San Bernardino, San Bernardino County, California, 2006.*

*Historic Property Survey Report for the Interstate 10/Cedar Avenue Project, County of San Bernardino, California, 2006.*

*Historic Property Survey Report for the Interstate 10/Cherry Avenue Project, City of Fontana, San Bernardino County, California, 2006.*

*Historic Property Survey Report for the State Route 91-Add HOV Lanes Through Riverside-Adams Street to Route 60/215 Junction, City of Riverside, Riverside County, California, 2006.*

*Cultural Resource Assessment of 22 Natural Treatment System Facility Sites Within the San Diego Creek Watershed, Natural Treatment System Project, Irvine Ranch Water District, Orange County, California, 2005.*

*Cultural Resource Assessment Proposed Sea Terrace Recreational Trails Project, City of Dana Point, Orange County, California, 2005.*

**SELECTED REPORTS (CONTINUED)**

*Cultural Resource Assessment Seaside Park, City of Long Beach, Los Angeles County, California, 2005.*

*Finding of No Adverse Effect Without Standard Conditions Pursuant to the Section 106 Programmatic Agreement of January 2004 for The Orange County Gateway Project, Cities of Placentia, Anaheim, and Yorba Linda, Orange County, California, EA 965100, 2005.*

*Historical Resources Compliance Report for the Interstate 5/Sand Canyon Project, City of Irvine, County of Orange, California, 2005.*

*Historic Property Survey Report for the Interstate 10/Riverside Avenue Interchange Project in the City of Rialto, San Bernardino County, California, 2004.*

*Historic Property Survey Report for the State Route 91/Van Buren Boulevard Interchange Project, City of Riverside, Riverside County, California, 2004.*

*Monitoring and Inadvertent Discovery Plan for the Bayview Senior Affordable Housing Project, City of Newport Beach, Orange County, California, 2004.*

*Results of Cultural and Paleontological Resource Assessment for Six Acres at 31841 Apuesto Way, Coto de Caza, Orange County, California, 2004.*

*Results of Cultural Resources Due Diligence for the Neff Block and the Fascia Block Redevelopment Project in the City of Monrovia, Los Angeles County, California, 2004.*

*Archaeological Monitoring Report for the Irvine Water Main Project, City of Newport Beach, Orange County, 2003.*

*Cultural Resource Assessment and Evaluation for the Yorba Linda Craftsman Residential Development, City of Yorba Linda, Orange County, California, 2003.*

*Historic Property Survey Report for 7th Standard Road Widening Project, City of Shafter, Kern County, California, 2003.*

*Historic Property Survey Report for the First Street Bridge over San Lorenzo Creek, King City, County of Monterey, California, 2003.*

*Historic Property Survey Report for Schulte Road Bridge Replacement Project, Monterey County, California, 2003.*

*Historic Property Survey Report for the Sanborn Road Project, City of Salinas, Monterey County, California, 2003.*

*Historic Property Survey Report for the State Route 91/La Sierra Avenue Interchange Project, City of Riverside, Riverside County, California, 2003.*

*Historic Property Survey Report for the West Vista Way Widening Project, City of Vista, San Diego County, 2003.*

*Results of Cultural Resource Monitoring at the Former Santa Ana II Manufactured Gas Plant Site Historic Building, City of Santa Ana, Orange County, California, 2003.*

*Archaeological and Historic Architecture Assessment for the Former Santa Ana II Manufactured Gas Plant Site, City of Santa Ana, Orange County, California, 2002.*

*Cultural and Paleontological Resource Assessment for Tentative Tract No. 16289, San Bernardino County, California, 2002.*

**SELECTED REPORTS (CONTINUED)**

*Cultural Resource Assessment for the Orange County Water District Lakeview Water Transfer Pipeline Project, Cities of Placentia and Anaheim, Orange County, California, 2002.*

*First Supplemental Historic Property Survey Report for the State Route 74 - Dexter Avenue to Seventh Street, City of Lake Elsinore, Riverside County, California, 2002.*

*Historic Property Survey Report for the Citrus Avenue/Interstate 10 (#54-0538) Interchange Project, City of Fontana, San Bernardino County, California, 2002.*

*Historic Property Survey Report for the Interstate 5/Lomas Santa Fe Drive Interchange Project, City of Solana Beach, San Diego County, California, 2002.*

*Historic Property Survey Report for the Jamboree Road Pavement Rehabilitation Project, from Bison Avenue to University Drive, City of Newport Beach, Orange County, California, 2002.*

*Historic Property Survey Report for the Live Oak Canyon Road and Interstate 10 Roadway Improvements, City of Yucaipa, San Bernardino County, California, 2002.*

*Historic Property Survey Report for the Moulton Parkway Pavement Rehabilitation Project, from Via Campo Verde to the Southern City Limits of Laguna Woods, Orange County, California, 2002.*

*Historic Property Survey Report for the Van Buren Boulevard Bridge Replacement, City of Riverside, Riverside County, California, 2002.*

*Archaeological and Paleontological Monitoring for the Bonita Canyon Sports Park, City of Newport Beach, Orange County, California, 2001.*

*Cultural Resource Assessment for the Proposed Kit Carson Middle School, Escondido Union School District, City of Escondido, San Diego County, California, 2001.*

*Cultural section for the Preliminary Environmental Assessment Report for the Base Line Road/I-15 Interchange Project (Project Study Report phase), City of Rancho Cucamonga, California, 2001.*

*Historic Property Survey Report for Boronda Road Bridge over the Carmel River, Monterey County, California, 2001.*

*Historic Property Survey Report for the Bouquet Canyon Road Bridge over the Santa Clara River Project, City of Santa Clarita, Los Angeles County, California, 2001.*

*Historic Property Survey Report for the Cameo Shores/Pacific Coast Highway Project in the City of Newport Beach, Orange County, California, 2001.*

*Historic Property Survey Report for the Citrus Avenue/Interstate-10 Interchange Project, City of Fontana, San Bernardino County, California, 2001.*

*Historic Property Survey Report for the Gabilan/Natividad Creeks Class I Bicycle/Pedestrian Path Project, City of Salinas, Monterey County, California, 2001.*

*Historic Property Survey Report for the Interstate 405/Sand Canyon Avenue/Shady Canyon Drive Project, City of Irvine, Orange County, California, 2001.*

*Historic Property Survey Report for the Pacific Coast Widening from Seaward Road to Cameo Shores Road, City of Newport Beach, Orange County, California, 2001.*

*Archaeological and Historical Assessment at 7911 El Paseo Grande, La Jolla (City of San Diego), San Diego County, California, 2000.*

**SELECTED REPORTS (CONTINUED)**

*Cultural Resources Assessment for the Rancho Cucamonga Retail Center Project, City of Rancho Cucamonga, San Bernardino County, California, 2000.*

*Historic Property Survey Report for the Main Street/State Route 91 Project, City of Corona, Riverside County, California, 2000.*

*Historic Property Survey Report for the West Barton Road Bridge (#54C-379) Replacement Project, City of Grand Terrace, San Bernardino County, California, 2000.*

*Preliminary Staff Assessment, Moss Landing Power Plant Project, Cultural Resources, for the California Energy Commission, Monterey County, California, 2000.*

*Results of Archaeological and Paleontological Monitoring at 8356 Paseo del Ocaso, La Jolla (City of San Diego), 92037, San Diego County, California, 2000.*

*Results of Archaeological Monitoring at Sheridan Place Project, Tracts 15711 and 15712, City of Irvine, Orange County, California, 2000.*

*Results of Archaeological Monitoring at the Sunset Heights (El Norte) Project in the City of Escondido, San Diego County, California, 2000.*

*Results of Archaeological Site Survey for Friess/OSHEA Office Buildings, City of San Juan Capistrano, Orange County, California, 2000.*

*Archaeological and Historical Assessment of the Washington Street Bridge Widening Project for the City of La Quinta, Riverside County, California, 1999.*

*Cultural Resources Assessment for the Highland Surface Transportation Program Roadways Project, City of Highland, San Bernardino County, California, 1999.*

*Historic Property Survey Report for the Boronda Road Bridge, Carmel Valley, Monterey County, California, 1999.*

*Historic Property Survey Report for the Corps Park Bicycle Path, City of Ripon, San Joaquin County, California, 1999.*

*Historic Property Survey Report for the Etiwanda Avenue/Interstate-10 Interchange Project, San Bernardino County, California, 1999.*

*Historic Property Survey Report for the Ninth Street Bridge Project in the City of Modesto, Stanislaus County, California, 1999.*

*Historic Property Survey Report for the Replacement of the City Creek Bridge on Fifth Street, City of Highland, San Bernardino County, California, 1999.*

*Historic Property Survey Report for the Sandholdt Road Bridge, Moss Landing, Monterey County, California, 1999.*

*Historic Property Survey Report for the Toomes Avenue Low Water Crossing over Jewett Creek, City of Corning, Tehama County, California, 1999.*

*Results of Archaeological/Historical and Paleontological Records Searches and Survey for the Northside Commons Apartments Project, City of Victorville, San Bernardino County, California, 1999.*

*Archaeological Survey Report for the California Department of Transportation Storm Damage Repair Project, MON-1-44.7, Monterey County, California, 1998.*

**SELECTED REPORTS (CONTINUED)**

*Archaeological Survey Report for the California Department of Transportation Storm Damage Repair Project, MON-1-36.4, Monterey County, California, 1998.*

*Archaeological Survey Report for the California Department of Transportation Storm Damage Repair Project, MON-1-30.2, Monterey County, California, 1998.*

*Archaeological Survey Report for the California Department of Transportation Storm Damage Repair Project, MON-1-24.9, Monterey County, California, 1998.*

*Archaeological Survey Report for the California Department of Transportation Storm Damage Repair Project, MON-1-3.7, Monterey County, California, 1998.*

*Archaeological Survey Report for the California Department of Transportation Storm Damage Repair Project, SLO-1-70.8, San Luis Obispo County, California, 1998.*

*Cultural Resources Assessment for the Shopkeeper Road Extension, City of Long Beach, Los Angeles County, California, 1998.*

*Cultural Resources Assessment: San Antonio Heights Project, City of Upland, San Bernardino County, California, 1998.*

*Historic Property Survey Report for the Riverside Avenue/Interstate-10 Project, San Bernardino County, California, 1998.*

*Results of Archaeological Monitoring for the San Joaquin Marsh Enhancement Plan Project, City of Irvine, Orange County, California, 1998.*

*An Evaluation of the Dolph House, 34000 Capistrano by the Sea, City of Dana Point, Orange County, California, 1997.*

*Cultural and Paleontological Resources Assessment for Blue Sky Properties, San Juan Capistrano, Orange County, California, 1997.*

*Cultural Resources Assessment for Proposed Changes to Wickland Pipelines LLC, Richmond Marine-Link Pipeline Alignment, Alameda County, California, 1997.*

*Cultural Resources Assessment for the Francisco Oaks Project, El Dorado County, California, 1997.*

*Cultural Resources Assessment for the Marketplace Restaurant and Retail Site, City of Long Beach, Los Angeles County, California, 1997.*

*Cultural Resources Assessment of the Kaiser West End Project, City of Fontana, San Bernardino County, California, 1997.*

*Historic Property Survey Report for the Carona Avenue Bridge Replacement Project, City of Corning, Tehama County, California, 1997.*

*Historic Property Survey Report for the Route 99/Jack Tone Road Interchange Reconstruction Project, City of Ripon, San Joaquin County, California, 1999.*

*Second Supplemental Historic Property Survey Report for the Proposed State Route 30 Freeway Project, Los Angeles and San Bernardino Counties, California, 1997.*

*Cultural Resources Assessment for Amargosa Creek Improvement Project, Los Angeles County, California, 1996.*

**SELECTED REPORTS (CONTINUED)**

*Cultural Resources Assessment for Newport Coast Drive Extension, Off-Site Mitigation Areas, Orange County, California, 1996.*

*Cultural Resources Assessment for Ritter Ranch, Planning Area I, Los Angeles County, California, 1996.*

*Cultural Resources Assessment for the Home Depot - San Juan Capistrano Site, Orange County, California, 1996.*

*Cultural Resources Assessment for the Leah Drive Remedial Grading Project, Dana Point, Orange County, California, 1996.*

*Cultural Resources Assessment, Southern California Gas Company Natural Gas Transmission Line 6902 El Centro to Mexicali, Imperial County, California, 1996.*

*EIR for Bixby Ridge, Orange County, California, 1996.*

*Historic Property Survey Report for Newport Avenue/State Route 55, Tustin, Orange County, California, 1996.*

*Cultural Resources Assessment for 278.4 Acres Within East Highlands Ranch, San Bernardino County, California, 1995.*

*Cultural Resources Assessment for Central Avenue Realignment Extension Project, Cities of Chino and Chino Hills, San Bernardino County, California, 1995.*

*Cultural Resources Assessment for the Alviso Marina, Santa Clara County, California, 1995.*

*Cultural Resources Assessment - La Sierra University Specific Plan, Riverside County, California, 1995.*

*Cultural Resources Assessment - Newport Coast Drive Extension, City of Irvine, Orange County, California, 1995.*

*Historic Property Survey Report for Cajalco Road - 1st Supplemental, Riverside County, California, 1995.*

*Historic Property Survey Report for Route 73 and I-405 Improvements, Orange County, California, 1995.*

*Results of an Archaeological Windshield Survey in the Wheeler Ridge Area of the Tejon Ranch Near Grapevine, Kern County, California, 1995.*

*Test Level Investigations at CA-ORA-1371/H, East Hicks Canyon, Orange County, California, 1995.*

*Archaeological and Historical Investigations of the Cram School Site and Tentative Tracts 13551 and 15554, East Highlands, San Bernardino County, California, 1994.*

*Archaeology Assessment Report for Tract 13551 and Tract 15554 East Highlands Ranch, 1994.*

*Cultural Resources Assessment Angeles Forest Highway at Mile Marker 23.00 Angeles National Forest, Los Angeles County, California, 1994.*

*Cultural Resources Assessment for Five Vacant Lots and 42 Potentially Historic Buildings within the Northeast Anaheim Redevelopment Area, Orange County, California, 1994.*

*Cultural Resources Assessment Hicks Canyon and East Hicks Canyon Retarding Basins, Orange County, California, 1994.*

*Cultural Resources Assessment - Newport Coast Drive Extension, City of Irvine, Orange County, California, 1994.*

**SELECTED REPORTS (CONTINUED)**

*Cultural Resources Assessment of the Proposed Road System for TT6649 Alameda County, California, 1994.*

*Cultural Resources Assessment Planning Area 10 City of Irvine, Orange County, California, 1994.*

*Cultural Resources Assessment San Dimas Canyon Road at Mile Markers 0.45 and 0.93 Angeles National Forest, Los Angeles County, California, 1994.*

*Cultural Resources Assessment - Tentative Tract No. 14232, 1994.*

*Cultural Resources Assessment Tentative Tract No. 14747, Orange, California, 1994.*

*EIR for the Northwest Specific Plan, 1994.*

*Historic Property Survey Report for Apela Drive Bridge, Riverside County, California, 1994.*

*Historic Property Survey Report for Cajalco Road, Riverside County, California, 1994.*

*Historic Property Survey Report for Proposed Material Borrow Sites for the State Route 58 Mojave Freeway Project in Mojave, Kern County, California, 1994.*

*Historic Property Survey Report for the Evans Avenue/Ellis Road/I-215, City of Perris, Riverside County, California, 1994.*

*Historic Property Survey Report for the Washington Street Bridge over French Valley Stream Project, 1994.*

*Adelanto-Lugo Transmission Project Cultural Resources Assessment, San Bernardino County, California, 1993.*

*Cultural Resources Assessment of Alternative Sites for the Russell Ranch Project, Sacramento County, California, 1993.*

*Moss Landing Marine Laboratories Relocation Draft Environmental Assessment, Monterey County, California, 1993.*

*Watsonville Community Hospital Alternative Sites, Monterey County, California, 1993.*

The following selected reports were authored or coauthored by Ms. McLean prior to her employment with LSA:

*Cultural Resources Investigations: Meadow Insect Salvage Timber Sale, for INFOTEC Research, Inc., 1991 (with Roderic N. McLean).*

*Cultural Resource Survey and Assessment for the Geysers Geothermal Leasing Program, for Chambers Group, Inc., 1991 (with Peter Carr and Roderic N. McLean).*

*Cultural Resource Survey and Assessment for Raging Waters, for Chambers Group, Inc., 1990.*

*Cultural Resource Survey and Assessment for Rolling Hills Ranch, for Chambers Group, Inc., 1990 (with Paul Farnsworth).*

*An Assessment of Site 5MF605 in Browns Park National Wildlife Refuge, Colorado, for National Park Service, Department of the Interior, 1976 (with Catherine H. Blee and Laurence L. Loendorf).*

**SELECTED REPORTS (CONTINUED)**

*Harper's Ferry National Historical Park Archaeological Investigation of Buildings 8 and 9*, for National Park Service, Department of the Interior, 1976.

*Harper's Ferry National Historical Park, West Virginia, Archaeological Investigation of Buildings 9 and 10*, for National Park Service, Department of the Interior, 1976 (with Catherine H. Blee).

*William Howard Taft National Historic Site Archaeological Investigation of Foundation and Cistern*, for National Park Service, Department of the Interior, 1975.

# TERRI P. FULTON

ASSOCIATE/ARCHAEOLOGIST/  
NATIVE AMERICAN TRIBAL LIAISON/ETHNOGRAPHER



## EXPERTISE

Cultural Resource  
Management

Native American  
Consultation and  
Coordination

Ethnography and Cultural  
Landscape Assessments

Archaeological Surveys,  
Monitoring, Excavation, and  
Site Evaluation

Proposals and Report Writing

## REGIONAL EXPERTISE

Western United States,  
including Northern and  
Southern California, Oregon,  
Idaho, Wyoming,  
Washington, Arizona, New  
Mexico, and the Santa  
Barbara Channel Islands

## EDUCATION

University of California,  
Santa Barbara, B.A., Cultural  
Anthropology/Archaeology,  
1987.

## ADDITIONAL TRAINING

Completion of Section 106  
workshop, Riverside,  
California, June 1995.

## PROFESSIONAL RESPONSIBILITIES

Ms. Fulton's responsibilities at LSA include project management from the proposal phase to the production of the final report. She is responsible for field and laboratory direction of small and large projects, including supervising and conducting archaeological surveys and excavations, monitoring, and documenting and evaluating archaeological sites, as well as managing the processing and preparation of archaeological collections for curation. Other responsibilities include report preparation, budget assessment and tracking, conducting records and archival searches prior to project fieldwork, and compliance with California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) guidelines for cultural resources.

As the Native American Tribal Liaison for LSA, Ms. Fulton assists State and federal agencies with Native American consultation as required by Section 106 of the National Historic Preservation Act. She also assists local government agencies with Native American consultation under Senate Bill 18 ([SB 18] Burton 2004), which, since its enactment in March 2005, requires consultation when updating or amending a General or Specific Plan in California. Ms. Fulton works extensively with private clients, utilities, various city and county governments, and agencies such as the California Department of Transportation (Caltrans), the United States Army Corps of Engineers (Corps), the Bureau of Land Management (BLM), Marine Corps Base Camp Pendleton, and the Native American Heritage Commission (NAHC), for the protection and management of cultural resources.

As an LSA ethnographer, Ms. Fulton is involved in the ethnographic and cultural landscape assessments for projects in Riverside, San Diego and Imperial Counties. This work involves extensive research, outreach, and interviews with Native Americans, the ability to evaluate cultural landscapes, and the production of final reports.

## SUMMARY OF EXPERIENCE

### FIELD

Ms. Fulton's field experience includes surveying, testing, excavation, feature excavation, monitoring, transit operation, cartography and global positioning systems (GPS) on both historic and prehistoric sites, with extensive supervisory experience, including site evaluation and treatment.

### LABORATORY

Ms. Fulton's laboratory experience includes all phases from sorting to cataloging, including functional laboratory design and flotation on both historic and prehistoric sites, with extensive supervisory experience.

# TERRI P. FULTON

ASSOCIATE/ARCHAEOLOGIST/  
NATIVE AMERICAN TRIBAL LIAISON/ETHNOGRAPHER



## PROFESSIONAL EXPERIENCE

Senior Cultural Resources Manager/Native American Tribal Liaison/Ethnographer, LSA Associates, Inc., Irvine, 2001–present.

Field Director and Crew Chief, Applied Earthworks, Inc., 1998–2002.

Archaeological Consultant, Shapiro and Associates, Inc., Washington County, Oregon, 2001–2002.

Field Director and Crew Chief, Northwest Archaeological Associates, Inc., 1997–2000.

Field Technician, Greenwood and Associates, 1989–1997.

Field Director, Crew Chief, and Field and Laboratory Technician, INFOTEC Research, Inc., 1991–1996.

Field Technician, Office of Contract Archaeology, University of New Mexico, New Mexico, 1991.

Field Technician/Feature Excavator, Chambers Group, California, 1990–1991.

Field Technician/Feature Excavator, Whittley and Simon, Ventura County, California, 1990.

Laboratory Technician, Santa Barbara Trust for Historic Preservation, Santa Barbara, California, 1990.

Laboratory Director, Environmental Solutions, Inc., Santa Barbara County, California, 1989.

Laboratory Technician, Dames and Moore, Santa Barbara County, California, 1988.

Laboratory Director, Larry Wilcoxon Archaeological Consultants, Santa Barbara County, California, 1988.

## SUMMARY OF EXPERIENCE (CONTINUED)

### MANAGEMENT

Ms. Fulton has handled management of small and large projects from the proposal phase to the production of the final report; field coordination of small and large excavations and monitoring projects, including extensive logistical planning for field crews consisting of up to 30 field technicians and archaeological monitors; emergency discovery treatment evaluations; extensive writing responsibilities; budget assessment and tracking; company representation; agency and client interfacing; and Native American coordination.

### ETHNOGRAPHY AND CULTURAL LANDSCAPE ASSESSMENTS

Ms. Fulton has supervised production of ethnographic and cultural landscape assessments that include Native American outreach and coordination, interviews with Native American participants, cultural landscape evaluation, and extensive research.

## PROJECT EXPERIENCE

### **Ganahl Lumber Expansion Project City of Costa Mesa, Orange County, California**

Ms. Fulton has conducted a peer review of the cultural resources study for the project, and has assisted the City of Costa Mesa with Native American consultation.

### **Orange County Transportation Authority Environmental Mitigation Program Cultural Support**

Ms. Fulton is the project manager for providing cultural support to the Orange County Transportation Authority for a project that entails cultural resources sensitivity assessments for 11 areas that will be preserved and managed as open-space. The assessments require records searches, surveys, Native American coordination, coordination with the Army Corps of Engineers, and the production of the final reports.

### **Ocotillo Sol Ethnographic Study and Cultural Landscape Assessment**

#### **San Diego and Imperial Counties**

Ms. Fulton conducted Native American consultation and outreach on behalf of the BLM El Centro Field Office. She is currently producing an ethnographic assessment and landscape analysis for the project in cooperation with the Cocopah and Kumeyaay tribes.

### **Interstate 5 (I-5) High-Occupancy Vehicle (HOV) Lane Extension Orange County, California**

Ms. Fulton conducted Native American consultation on behalf of Caltrans District 12. She also participated in the archaeological survey for the project.

## **TERRI P. FULTON**

ASSOCIATE/ARCHAEOLOGIST/  
NATIVE AMERICAN TRIBAL LIAISON/ETHNOGRAPHER



### **PROFESSIONAL EXPERIENCE (CONTINUED)**

Field Technician, Dames and Moore, Santa Barbara County, California, 1988.

Field Technician, Westec Services, Inc., Santa Barbara County, California, 1988.

Field Technician, Environmental Solutions, Inc., Santa Barbara County, California, 1988.

Laboratory Director, The Planning Corporation, Santa Barbara County, California, 1987–1988.

Field Technician, URS Corp. San Bernardino County, California, 1987.

Field Technician, The Planning Corporation, Santa Barbara County, California, 1987.

Assistant Laboratory Director, Center for Archaeological Studies, University of California, Santa Barbara, Santa Barbara, California, 1986.

Field and Laboratory Assistant, Center for Archaeological Studies, University of California, Santa Barbara, 1983–1985.

### **PROJECT EXPERIENCE (CONTINUED)**

#### **Interstate 710 (I-710) Corridor EIR/EIS Los Angeles County, California**

LSA is providing continuing archaeological and paleontological services for construction of the I-710 Corridor Project. Ms. Fulton is participating in the archaeological survey and has conducted Native American consultation for the project on behalf of Caltrans District 7.

#### **Mid County Parkway Riverside County, California**

Ms. Fulton is Lead Surveyor for this large transportation corridor project that spans 16 miles in Riverside County. She is the primary point of contact for all the ongoing Native American consultation, an effort that includes setting up and attending numerous meetings with the nine tribes involved in the consultation process, providing updates to all parties as needed, meeting coordination and logistics, and close coordination with Caltrans District 8 Cultural Resources and Federal Highway Administration staff regarding Native American concerns and issues as they arise. Ms. Fulton was also instrumental in coordinating the development of a Memorandum of Agreement between the involved tribes and the Federal Highway Administration regarding the treatment of cultural resources that will be impacted by the project.

#### **Pine Avenue Extension from State Route 71 (SR-71) to Euclid (State Route 83 [SR-83]) Project Chino, California**

Ms. Fulton performed the cultural resource assessment for the Pine Avenue Extension project. Her tasks consisted of defining and preparing an Area of Potential Effects (APE) map in coordination with geographic information systems (GIS) and project engineers, conducting a records search at the appropriate California Historical Resources Information System (CHRIS) facility, and preparing the cultural section of the environmental document including a Historic Property Survey Report (HPSR), an Archaeological Survey Report (ASR), and a Historical Resources Evaluation Report (HRER), where necessary. She also initiated and completed NAHC and Native American consultation on behalf of Caltrans District 8, as requested. All work was completed per Caltrans, NEPA, and CEQA guidelines.

#### **Laguna Canyon Road/Interstate 405 (I-405) Overcrossing Widening Project Orange County, California**

Ms. Fulton was responsible for the cultural resource assessment. Tasks consisted of defining and preparing an APE map in coordination with GIS and project engineers, conducting a record search at the appropriate CHRIS facility, and preparing the cultural section of the environmental document including an HPSR, an ASR, and an HRER, where necessary.

## **TERRI P. FULTON**

ARCHAEOLOGIST/SENIOR CULTURAL RESOURCES MANAGER/  
NATIVE AMERICAN TRIBAL LIAISON/ETHNOGRAPHER



### **PROJECT EXPERIENCE (CONTINUED)**

She also initiated and completed NAHC and Native American consultation on behalf of Caltrans District 12, as requested. All work was completed per Caltrans, NEPA, and CEQA guidelines

#### **AT&T Wireless Services**

##### **San Diego, California**

Ms. Fulton served as Assistant Project Manager and completed cultural resource assessments, including record searches, surveys, Phase I testing, State Historic Preservation Officer consultation, and Native American consultation for over 20 AT&T cell site facilities.

#### **Foothill Transportation Corridor South Mitigation**

##### **Orange County, California**

LSA has been selected by the Transportation Corridor Agencies to provide continuing archeological and paleontological services for the construction of the Foothill Transportation Corridor-South project. Ms. Fulton has led survey crews as Field Director on the Mission Viejo Land Conservancy. She was in charge of documenting new discoveries and relocating previously recorded archaeological sites. For the continued project, Ms. Fulton's primary role will be as Field and Laboratory Director. Ms. Fulton is also responsible for Native American consultation.

#### **Cingular Wireless**

##### **San Diego, California**

Ms. Fulton served as Project Manager. Ms. Fulton completed cultural resource assessments, including record searches, surveys, and Phase I testing of various Cingular Wireless cell site facilities.

#### **Sunrise Powerlink Transmission Line Project**

##### **San Diego and Imperial Counties, California**

Ms. Fulton conducted Native American consultation on behalf of the BLM for this 200-mile-long transmission line. Her duties included contact with up to 60 Native Americans representing Tribes in San Diego and Imperial Counties, organizing meetings and communication records, and the delivery of this information to the El Centro BLM Field Office for inclusion in its environmental documentation.

#### **Level 3 Communications**

##### **Santa Barbara County, California**

Ms. Fulton served as Field Coordinator. She coordinated monitoring activities for up to 30 archaeological and Native American monitors during construction of the Level 3 Fiber Optic line in Santa Barbara County.

#### **FTV Fiber Optic Line**

##### **Oregon**

Ms. Fulton served as Field and Laboratory Director. Her tasks included a record search, survey, excavation, site monitoring, and laboratory analysis.

#### **Puente Hills Landfill Native Habitat Preservation Authority Resource Management Plan**

##### **Puente Hills, California**

Ms. Fulton oversaw the cultural resource assessment for the larger Resource Management Plan conducted by LSA for the Puente Hills Landfill Native Habitat Preservation Authority Project. Her responsibilities included coordinating the record search and field survey, documenting all historic properties discovered on the Habitat Authority's 3,180-acre property, preparing archaeological site records for submission to the South Central Coastal Information Center, and completing a summary report for review by the Habitat Authority. All work was conducted in accordance with CEQA guidelines.

## **TERRI P. FULTON**

ARCHAEOLOGIST/SENIOR CULTURAL RESOURCES MANAGER/  
NATIVE AMERICAN TRIBAL LIAISON/ETHNOGRAPHER



### **PROJECT EXPERIENCE (CONTINUED)**

#### **Verizon Wireless**

##### **Santa Barbara, San Diego, Los Angeles, and Orange Counties, California**

Ms. Fulton is currently the Project Manager for Verizon Wireless Cultural Resource Assessments including record searches and surveys of various cell site facilities.

#### **Del Mar Fairgrounds**

##### **San Diego, California**

Ms. Fulton is the task manager for a cultural resource assessment currently being conducted by LSA for the Del Mar Fairgrounds. This assessment includes a record search, survey report, Native American consultation, and a paleontological evaluation.

### **SELECTED REPORTS**

- 2009–present Cultural Landscape and Ethnographic Assessments for large-scale energy projects in San Diego and Imperial Counties, California.
- 2005–present Historic Properties Treatment Plans, Archaeological Survey Reports, and Native American Consultation for the Caltrans Districts 7, 8, and 12.
- 2009 Cultural Resources Assessment for the Alamitos Bay Marina Rehabilitation Project, City of Long Beach, Los Angeles County, California.
- 2008 Cultural Resources Assessment for the Montebello Hills Specific Plan Project, City of Montebello, Los Angeles County, California.
- 2006–2009 Numerous Cultural Resources Assessments for Verizon Wireless Facilities.
- 2006 Cultural Resources Assessment, Del Mar Fairgrounds Project, Cities of Del Mar and San Diego, San Diego County, California.
- 2006 Cultural Resources Assessment, Irvine Park Public Stables Project, City of Irvine, Orange County, California.
- 2006 Cultural Resources Assessment, Santa Ana East and West Pump Stations Project, City of Santa Ana, Orange County, California.
- 2006 Cultural Resources Assessment, Vail Lake Transmission Main and Pump Station Project, Riverside County, California.
- 2006 Cultural Resources Assessment, Villa Park Dam Stables Project, City of Irvine, Orange County, California.
- 2005 Cultural Resources Assessment, Proposed Sea Terrace Park Recreational Trails Project, City of Dana Point, Orange County, California.
- 2005 Riverside County to Orange County Major Investment Study, Draft Cultural Resource Assessment.

## **TERRI P. FULTON**

ARCHAEOLOGIST/SENIOR CULTURAL RESOURCES MANAGER/  
NATIVE AMERICAN TRIBAL LIAISON/ETHNOGRAPHER



### **SELECTED REPORTS (CONTINUED)**

- 2005 Cultural Resource Assessment, Orange County Transportation Authority Long-Range Transportation Plan.
- 2004–2005 Numerous cultural resource assessments for Cingular, AT&T, and Verizon Wireless facilities.
- 2004 Cultural Resource Assessment, Puente Hills Landfill Native Habitat Preservation Authority, Puente Hills, California.
- 2003 Archaeological Survey Report, Whipple-Havasu Circuit, Southern California Edison, San Bernardino County, California; coauthored with Curt Duke.
- 2003 Archaeological Survey Report, Remote Circuit, Southern California Edison, San Bernardino County, California; coauthored with Curt Duke.
- 2003 Archaeological Survey Report, Tufa Circuit, Southern California Edison, Mono County, California; coauthored with Curt Duke.
- 2003 Archaeological Survey Report, Jenks Lake Circuit, Southern California Edison, San Bernardino County, California; coauthored with Curt Duke.
- 2003 Cultural Resource Assessments, AT&T Wireless Services, Facilities M310A, M310B, M310C, M310D, and M310E, Los Angeles, California; and Facilities 20115A, 20100A, 26029A, and 26020A, San Diego County, California.



### **EXPERTISE**

All aspects of Cultural Resources Management

Archaeological Surveys, Monitoring, and Excavation

Cartography, Transit/Total Station Operation, GPS, Photography

Native American Relations

### **EDUCATION**

University of California, Santa Barbara, B.A., Environmental Studies, 1984.

### **AREAS OF GEOGRAPHIC EXPERIENCE**

Coastal and Inland California

Northern and Southern California

Mojave and Colorado Deserts

American Southwest

Great Basin

American Northwest

Rocky Mountains/Wyoming

### **PROFESSIONAL RESPONSIBILITIES**

As a Senior Cultural Resources Manager for LSA, Mr. Fulton's responsibilities include supervising and conducting archaeological surveys, excavations, and evaluations of archaeological sites. Other responsibilities include report preparation and documentation of archaeological resources, as well as conducting records or archival searches prior to project fieldwork.

Since 1986, Mr. Fulton has worked full time as a professional archaeologist. He is experienced in all aspects of field archaeology, including survey, testing, data recovery, and construction monitoring, with extensive supervisory experience on both historic and prehistoric projects that includes writing numerous site evaluations and reports for potential National Register of Historic Places eligibility. Mr. Fulton is a proven field supervisor, has directed crews of up to 30 individuals, and is adept at interacting with the various agencies and parties that are involved in large-scale projects. He is proficient at transit and total station operation, cartography, global positioning systems (GPS), and photo documentation, and has worked extensively processing and analyzing historic and prehistoric artifacts in the laboratory.

### **PROJECT EXPERIENCE**

#### **State Route 74 Safety Project Orange County, California**

Mr. Fulton conducted an archaeological survey for the project and authored the Archaeological Survey Report (ASR) and Historic Property Survey Report (HPSR) in 2013.

#### **Goose Lake Extended Phase I Project Kern County, California**

Mr. Fulton directed an Extended Phase I investigation of nine prehistoric sites located within the 158-acre Goose Lake Solar Project. He directed the excavations, conducted the laboratory work and analysis, and authored the report in 2012.

#### **Southern California Edison EMT Upgrades Project Kern, Los Angeles, and San Bernardino Counties, California**

Mr. Fulton conducted a cultural resource survey of 128 existing transmission towers on the Midway-Vincent No. 1, Midway-Vincent No. 2, Midway-Vincent No. 3, Lugo-Mojave, and Lugo El Dorado transmission lines. Southern California Edison plans to retrofit the towers. Mr. Fulton conducted the fieldwork and authored separate reports in 2010 for the 32 towers located on private land and the 96 located on lands administered by the Bureau of Land Management.

## **PROFESSIONAL EXPERIENCE**

Senior Cultural Resources Manager, LSA Associates, Inc., Irvine, California, 2001–Present.

Field Director and Crew Chief, Applied Earthworks, Inc., 1998–2002.

Archaeological Consultant, Shapiro and Associates, Inc., Washington County, Oregon, 2001–2002.

Field Director and Crew Chief, Northwest Archaeological Associates, Inc., 1997–2000.

Crew Chief/Field Technician, Greenwood and Associates, 1988–1997.

Field Director, Crew Chief and Field and Laboratory Technician, INFOTEC Research, Inc., 1991–1995.

Field Technician, Office of Contract Archaeology, University of New Mexico, 1991.

Field Technician/Feature Excavator, The Chambers Group, 1990–1991.

Field Technician/Feature Excavator, Whittley and Simon, 1990.

Crew Chief, Santa Barbara Trust for Historic Preservation, El Presidio De Santa Barbara State Historic Park, Santa Barbara, California, 1989.

Field Technician, Westec Services, Inc., 1987–1989.

Field Technician, Ancient Enterprises, Los Angeles County, California, 1989.

Laboratory Technician, Ancient Enterprises, 1989.

Field Technician, URS Corporation, 1987.

## **PROJECT EXPERIENCE (CONTINUED)**

### **Mid County Parkway Project Riverside County, California**

Mr. Fulton led a survey crew for the project, during which over 200 previously unidentified archaeological resources were identified. He assisted with the Extended Phase I investigations at sites within the area of potential effects and conducted the lithic analysis for the Archaeological Evaluation Report for the project. Upon completion of project revisions, Mr. Fulton edited the previously conditionally approved ASR, Extended Phase I Report, Archaeological Evaluations Without Phase II Report, and Archaeological Evaluation Report. Mr. Fulton authored the Findings of Effect, the Memorandum of Agreement, and the Discovery and Monitoring Plan for the project. All of the work was completed between 2005 and 2014.

### **Interstate 710 Corridor Project Los Angeles County, California**

Mr. Fulton conducted an archaeological survey for the project and authored the ASR in 2011.

### **Verizon Wireless Facilities Orange, Los Angeles, San Diego, and San Bernardino Counties, California**

As a subconsultant to Bureau Veritas North America, Inc., Mr. Fulton has completed Cultural Resource Assessments for over 150 Verizon Wireless Facilities in Southern California since 2005.

### **enXco Development Solar Energy Facility Projects Kern and Los Angeles Counties, California**

Mr. Fulton conducted cultural resource assessments for the 158-acre Goose Lake Soleil Project in Kern County; the 107-acre Smyrna Timmerman Project in Kern County; the 80-acre Smyrna Grayson Project in Kern County; the 61-acre Elk Hills Project in Kern County; the 40-acre Delis Farms Project in Kern County; and the 40-acre Little Rock-Pham Project in Los Angeles County. enXco Development intends to develop solar energy facilities at the project locations. All of the work was completed in 2010.

### **Interstate 5 High-Occupancy Vehicle Lane Extension Project San Juan Capistrano, San Clemente, and Dana Point, California**

Mr. Fulton conducted an archaeological survey for the project and authored the ASR in 2010.

**PROFESSIONAL  
EXPERIENCE  
(CONTINUED)**

Field Technician, Painted  
Cave Archaeological  
Associates Snow Project,  
1987.

Field Technician,  
Archaeological Energy  
Consultants, 1987.

Field Technician, Center for  
Archaeological Studies,  
University of California, Santa  
Barbara, 1986.

Site Photographer/Field  
Technician, Center for  
Archaeological Studies,  
University of California, Santa  
Barbara, 1986.

**PROJECT EXPERIENCE (CONTINUED)**

**State Route 73 Basin Sedimentation  
Orange County, California**

Mr. Fulton conducted an archaeological survey for the project and authored the HPSR and ASR in 2009.

**State Route 57 Northbound Widening Project Between Katella  
Avenue and Lincoln Avenue  
Anaheim, California**

Mr. Fulton conducted an archaeological survey for the project and authored the HPSR and ASR in 2009.

**Serrano Highlands Project  
Lake Forest, California**

Mr. Fulton conducted an archaeological survey for this 33-acre project and authored the Cultural Resources Assessment in 2008.

**Cultural Resources Assessment (Parcels 311090008, 311090010, and  
311090011)  
Perris, California**

Mr. Fulton conducted a Phase I archaeological survey of a 33.54-acre parcel in the City of Perris. The survey identified five prehistoric archaeological sites that Mr. Fulton evaluated for the California Register of Historical Resources (California Register) through a Phase II testing and evaluation program. Mr. Fulton directed the fieldwork and authored the report in 2007.

**Curtone Residence Project  
Laguna Niguel, California**

Mr. Fulton conducted an archaeological survey for this 20-acre project and authored the Cultural Resources Assessment in 2007.

**Foothill South Transportation Corridor  
Orange and San Diego Counties, California**

LSA provided archaeological services for construction of the Foothill Corridor-South project. Mr. Fulton directed the survey of the portions of the corridor through Marine Corps Base Camp Pendleton and the Donna O'Neill Land Conservancy, and was lead author of the Base Specific Report, as well as the ASR for the entire Foothill South Alternative. These tasks were completed in 2006.

**TPM 93-129 Residential Development Project  
Laguna Niguel, California**

Mr. Fulton conducted an archaeological survey for this 50-acre project and authored the Cultural Resources Assessment in 2006.

**PROJECT EXPERIENCE (CONTINUED)**

**SunCal Oak Valley  
Beaumont, California**

LSA performed a cultural resource evaluation of five prehistoric sites. Mr. Fulton directed the archaeological testing of the five prehistoric sites. The results indicated that two of the sites are eligible for the California Register under California Environmental Quality Act (CEQA) guidelines. Mr. Fulton then directed the data recovery excavations of the two sites, performed and directed the subsequent lab work and analysis, and authored the final report. He also directed the testing and data recovery excavations of the Noble Adobe, a circa 1870s residence/stage stop. These excavations were performed under United States Army Corps of Engineers, Section 106, jurisdiction. Mr. Fulton co-authored the final report. These tasks were completed between 2004 and 2006.

**Testing and Evaluation of Site CA-ORA-584  
Orange County, California**

Mr. Fulton directed the test excavations at Site CA-ORA-584, performed the laboratory work and analysis, and authored the evaluation report in 2005.

**State Route 55 (Interstate 405 to Interstate 5)  
Orange County, California**

LSA is currently preparing an Initial Study/Environmental Assessment (IS/EA) for improvements to State Route 55 (SR-55) between Interstate 405 (I-405) and Interstate 5 (I-5). LSA is responsible for overseeing the preparation of technical studies and the IS/EA, conducting quality assurance/quality control review of all products, and scheduling and budget management. LSA is working closely with members of the Project Development Team, including the Orange County Transportation Authority, the California Department of Transportation, and the Cities of Irvine, Santa Ana, and Tustin. Mr. Fulton conducted the archaeological survey and prepared the ASR and portions of the HPSR for the project.

**State Route 91/State Route 241 Connectors  
Orange County, California**

LSA prepared a preliminary environmental evaluation in support of a feasibility study for high-occupancy vehicle/express lane connectors between northbound State Route 241 and eastbound State Route 91. Mr. Fulton conducted the archeological survey for the project.

**Interstate 5 High-Occupancy Vehicle Lane Extension Project  
San Juan Capistrano, San Clemente, and Dana Point, California**

Mr. Fulton conducted an archaeological survey for the project and authored the ASR and HPSR in 2010.

## **APPENDIX B**

### **DEPARTMENT OF PARKS AND RECREATION FORMS FROM RECORDS SEARCH**

**(CONFIDENTIAL – NOT FOR PUBLIC DISTRIBUTION)**

University of California

ARCHAEOLOGICAL SITE SURVEY RECORD

1. Site LAN-272 2. Map <sup>USGS/</sup> Los Alamitos USGS quad. 7 $\frac{1}{2}$  min-3. County Los Angeles
4. Twp. 5 S Range 12 W; SW 1/4 of \_\_\_\_\_ 1/4 of Sec. 11
5. Location 100' W of Pacific Coast Hiway, between south bank of San Gab. R. channel and north boundary of Orange Co.; 300' south of bench mark 16. See map and attached preliminary report for details. On contour elevation \_\_\_\_\_
7. Previous designations for site \_\_\_\_\_
8. Owner \_\_\_\_\_ 9. Address \_\_\_\_\_
10. Previous owners, dates \_\_\_\_\_
11. Present tenant \_\_\_\_\_
12. Attitude toward excavation \_\_\_\_\_
13. Description of site Skull in marine deposit, 16'3" below sea level; 32' below present ground surface. See attached preliminary report for details.
14. Area \_\_\_\_\_ 15. Depth \_\_\_\_\_ 16. Height \_\_\_\_\_
17. Vegetation \_\_\_\_\_ 18. Nearest water \_\_\_\_\_
19. Soil of site \_\_\_\_\_ 20. Surrounding soil type \_\_\_\_\_
21. Previous excavation \_\_\_\_\_
22. Cultivation \_\_\_\_\_ 23. Erosion \_\_\_\_\_
24. Buildings, roads, etc. \_\_\_\_\_
25. Possibility of destruction \_\_\_\_\_
26. House pits \_\_\_\_\_
27. Other features \_\_\_\_\_
28. Burials 1 skull; accidental deposition
29. Artifacts none
30. Remarks See details in attached preliminary report.
31. Published references \_\_\_\_\_
32. Accession No. \_\_\_\_\_ 33. Sketch map On File at LBSC
34. Date 3/25/61 35. Recorded by K. Dixon 36. Photos \_\_\_\_\_

SKULL FROM SEAL BEACH, CALIFORNIA

(LAN-272)

LAN-272  
REPORT

Preliminary report by Keith A. Dixon  
26 March 1961

On December 28, 1960, a human skull was found during some construction activities north of Seal Beach, California. It was reported to have been embedded in old marine deposits, which are 16' 3" below sea level, and 32' below present ground surface. To date, no other skeletal remains or cultural materials have been found.

The site (LAN-272) is in T. 5 S., R. 12 W. <sup>Sec. 11</sup> (SW  $\frac{1}{4}$ ), Los Angeles County (Los Alamitos quadrangle 7 $\frac{1}{2}$  min., U.S.G.S.). The site is about 100' west of the Pacific Coast Highway, between the south bank of the present channel of the San Gabriel River, and the northern boundary of Orange County; it is 300' south of B.M. 16. Landing Hill is about 1 mile to the east; the present coastline is about half a mile to the southwest.

The skull had been exposed when a sump pit was dug beside a main work area in connection with a pumping operation during tunnel construction. The pool of water activated by the pump washed away the dirt surrounding the skull, but apparently did not move it. Mr. Dan Burris, in charge of the operation, noticed the skull lying on its right side, facing west. It was on a layer of clayed silt (16' 3" below sea level), apparently in the bottom portion of a concentrated layer of shells about 18" thick. While exposing the skull completely, Mr. Burris noticed the shell material embedded in the eye-sockets. It was subsequently cleaned at the Seal Beach police station, but on January 5, Dr. William Wallace noted some of the same shell material left inside the cranium. Although the skull was not seen in place by archaeologists, there is no reason to doubt the context.

The east face of the pit, overlying the skull, was only about 4' high because the rest had been removed during the construction activity; but the remaining strata were unbroken and were continuous with the complete vertical section on

Dixon, 25 March 61

the north face of the pit, about 4' north of the skull (the stratigraphic analysis is based on this vertical section).

The strata indicate that conditions of deposition were most likely phases of an environment similar to present conditions behind the sand bar at Sunset Beach. The fauna and flora are largely an estuarine assemblage. The whole of the exposed layers below recent fill show that after deposition of the skull, there was coastal subsidence of at least 26', accompanied by deposition; the character of the strata gradually changed as the result of a shifting sand-bar. Deposition was interrupted at least twice by periods of predominant erosion that are marked by clear disconformities in sand layers and by extensive lenses of vegetal matter. Finally, there was coastal uplift of at least 10'. As a result of this vertical crustal movement, there is strong warping and tilting of the strata. The site is on the southeastern flank of a faulted dome, the Seal Beach oil field.

Shell and vegetal materials have been collected from depths of 7' above sea level, 9' below, 10' below, 14' 7" below, and 15' 6" below sea level. These samples will be dated to help determine the age of the skull and to date the time intervals of geologic events and changing environment along the coast. Other samples of sands and silts collected at regular intervals will clarify the nature of deposition through time. A physical anthropologist is currently analyzing the skull. Though no artifacts have appeared, the skull does have relevance for the interpretation of culture history along the coast.

Acknowledgments. The skull was found by Mr. Dan Burris during a tunnel construction project of the R. A. Watson Co. to carry water under both the highway and the San Gabriel River channel to a steam plant. We wish to thank Mr. Burris for discussing the discovery with us in such thorough manner, and the Mr. Watson for granting permission for us to investigate the site.

The skull was taken to the Seal Beach police department. Detective Al Chafe notified Dr. Ethel Dwing of the Anthropology Department, Long Beach State College, who examined the skull and in turn notified Dr. Keith Dixon (Anthropology Department, L.B.S.C.) and Dr. William Wallace (Anthropology Department, University of Southern California), who made a preliminary examination of the skull and site on January 5. On January 7, Keith Dixon and Charles Case (Archaeological Research Associates) visited the site in order to view the context and obtain samples of the strata. They were accompanied by Prof. Albert L. Ehrreich, (Geology Department, L.B.S.C.), who aided in obtaining samples. On January 15, Dixon returned to the site with Dr. Bert L. Conroy (Geology Department, L.B.S.C.) who collected further samples and made a field analysis of the stratigraphy. Analysis of sedimentation and of shell material was by Dr. Conroy. Identification of vegetal matter was by Dr. Charles Burch (Biology Department, L.B.S.C.). Analysis of the skull is by Dr. Sheilagh Brooks (Pasadena City College).

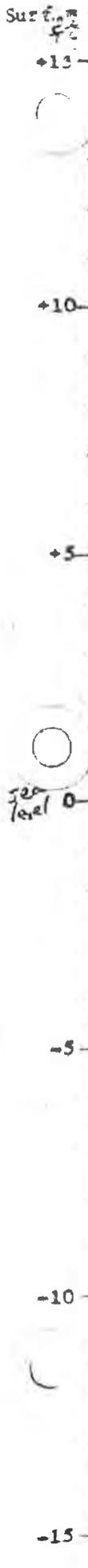
STRATIGRAPHIC SECTION OF THE  
SEAL BEACH ANTHROPOLOGICAL SITE  
(LAN-272)

*D. Conroy*  
Geology Dept  
LBSU

Location: 3400'W & 2350'N of  
S.E. corner Sect. 11, T. 5S.,  
R. 12W.

Structure: SE flank faulted  
dome, Seal Beach field.  
Beds dipping S70°W at 5°.

Stratigraphy: Recent to  
Pleistocene?



FILL

SAND, lt. yel., f.g. (Md=0.215), well-sorted (So=1.50), in part cross-laminated sub-angular grains, numerous frosted & pitted grains, cattered shells & occasional shell lense.

CLAYBY SILT, gy., Md=0.615, fair-sorting (So=3.38), scattered shells and occasional shell lense.

SAND, gy., f.g. (Md=2.00), well-sorted (So=1.35), sub-angular, frosted & pitted, abraded shells.

SHELL LAYER, matrix of c.g. sand (Md=.530), So=1.97, sub-angular, etc numerous frosted and pitted grains.

CLAYBY SILTS (1" thick), gy, Md=.0135, So=3.36, ----- INTERBEDDED WITH

SILTY SANDS (1" thick), gy, Md=.067, So=1.39.

SANDY SILT, gy, Md=.058, So=1.41, cross-laminated, occasional shells.

SAND, gy, v.f.g. (Md=.110), So=1.62, horizontal laminations, occasional shells.

SAND, gy, f.g. (Md=1.80), So=1.84, occasional shells.

ORGANIC LAYER, fibrous vegetal matter, water-worn chunks of wood.

SAND, gy., m.g. (Md=.310), So=1.32, sub-angular, frosted & pitted

SHELL LAYER, matrix of c.g. sand (Md=.750), So=2.12, sub-angular, etc

GIFT OF DR. KEITH DIXON, LONG BEACH  
STATE COLLEGE, 2-8-66 LAN-272

A DEEPLY-BURIED HUMAN SKULL AND RECENT  
STRATIGRAPHY AT THE PRESENT MOUTH OF  
THE SAN GABRIEL RIVER, SEAL BEACH,  
CALIFORNIA

SHEILAGH T. BROOKS  
Department of Anthropology  
University of Colorado  
Boulder, Colorado

BERT L. CONREY AND KEITH A. DIXON  
Departments of Geology and Anthropology  
California State College at Long Beach  
Long Beach, California 90804

On 21 December 1960, a human calvarium was found during some construction activities north of Seal Beach, California. It was reported to have been embedded in a layer of old marine deposits which is now 16 feet, 3 inches below sea level, and 32 feet below present ground surface. No other skeletal remains or cultural materials have been found in association with the calvarium.

The site (Archaeological Survey No. LAN-272) is in SW $\frac{1}{4}$  of Sec. 11, T. 5 S., R. 12 W, Los Angeles County. The site is about 100 feet west of the Pacific Coast Highway, between the south bank of the present channel of the San Gabriel River and the northern boundary of Orange County. The present coastline is about half a mile to the southwest.

The skull rested on a layer of clayed silt in the bottom portion of an 18-inch layer of shells, which in turn is overlain by one of several thin layers of peat. The strata overlying the skull on the east face of the pit were only 4 feet thick because the rest had been removed during the construction activity; however, the strata still remaining were unbroken and were continuous with an undisturbed vertical section about 4 feet north of the skull. The complete stratigraphic sequence is displayed in Figure 1.

The strata indicate that conditions of deposition were similar to those existing today behind the sand bar at Sunset Beach, a few miles south of Seal Beach. The fauna and flora are largely an estuarine assemblage. The whole of the exposed layers below recent fill show that after deposition of the skull, there was eustatic rise in sea level, coastal subsidence, or both, of at least 26 feet, accompanied by deposition; the character of the accumulating strata varied from

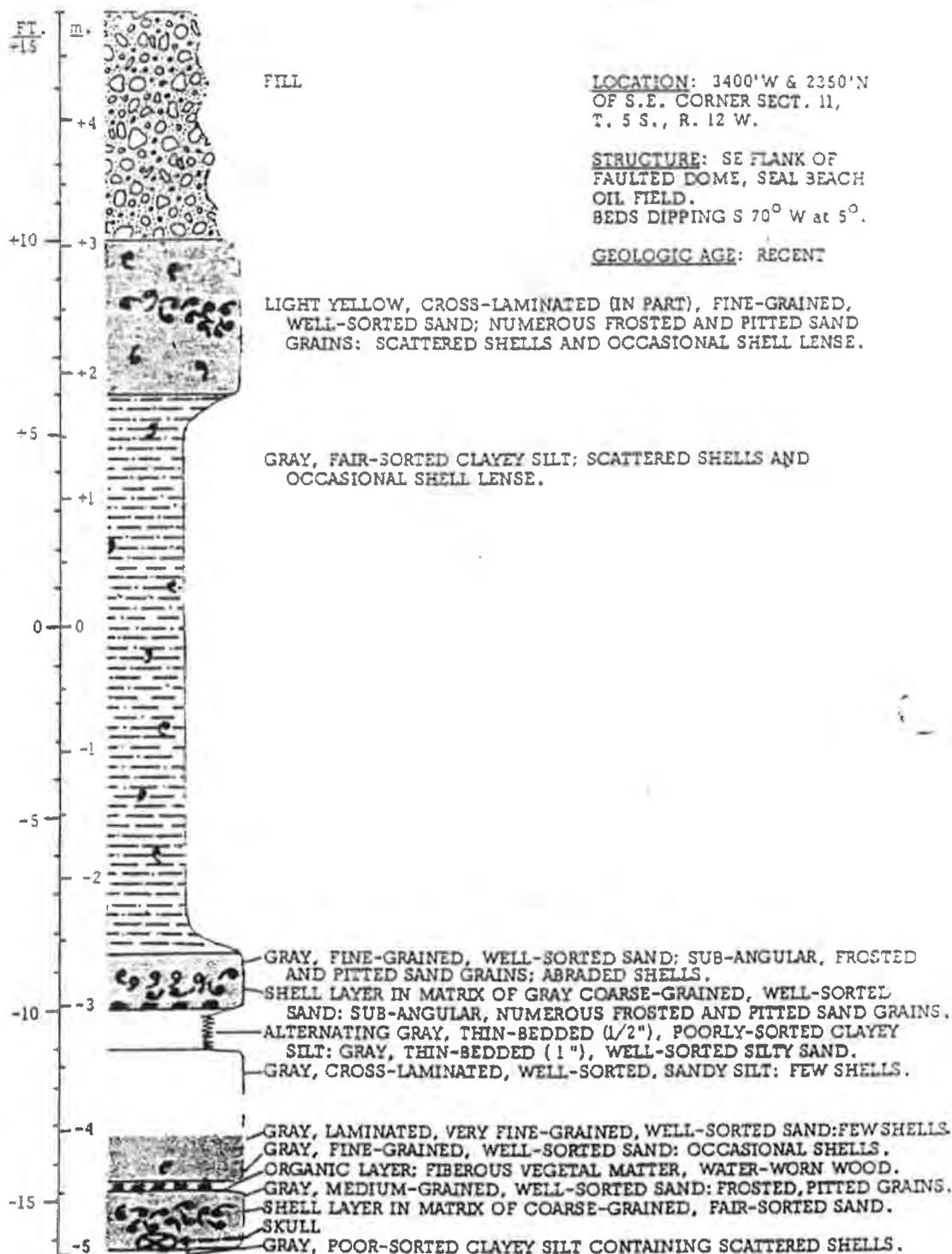


Figure 1. Stratigraphic section of site LAN-272. Scale at left is in feet and meters; 0 = present sea-level. (Conrey)

estuarine-lagunal muds to sands as the result of a shifting sand-bar. Deposition was interrupted at least twice by erosion which is identified by disconformities in sand layers and by extensive lenses of vegetal matter. Finally, the site was elevated at least 10 feet. A 5° tilt in the beds suggests that the last vertical shift of the site represents crustal movement rather than a eustatic fall in sea level.

It was not the depth of the skull, of course, but rather the evidence of considerable crustal movement subsequent to the skull's deposition that made this find of more than usual interest. While we expected the skull to date within the last 10,000 years or so of man's known occupancy of the Southern California coast, it was felt that the age might be at least two thousand years rather than more recent.

While the find was thought to be of little direct significance for archaeology, analysis of the skull by a physical anthropologist was considered worthwhile because it was well preserved and published details on the Indian population dating before 1000 A.D. are relatively rare for Southern California. In addition, the skull, or rather the stratigraphic sequence above it in this unusually good exposure, was significant in problems of local coastal geology.

It was clear, therefore, that the find merited the application of Carbon-14 dating, which of course was necessary before its full significance could be assessed. Through the courtesy of Dr. Carl L. Hubbs of Scripps Institution of Oceanography, La Jolla, a chione shell excavated near the skull was submitted to Dr. Willard F. Libby of the Institute of Geophysics and Planetary Physics, University of California, Los Angeles. The result was a Carbon-14 date of 980 ± 80 B.P. (UCLA-119; see Ferguson and Libby, 1962:13).

The dating of the stratum in which the skull was embedded at about 1000 A.D. proved to be something of a surprise, though certainly not unacceptable, and as a consequence, the significance of the skull and the stratigraphy has shifted for the three disciplines, assuming the date is correct.

Archaeologists will note the unusual rapidity of deposition and of the extensive vertical movement of the local crustal area in the past thousand years. This crustal instability emphasizes the need for caution in any problems that involve analysis of terrace remnants, sea margin sites, or of deposition and erosion in this section of the coast.

For the physical anthropologist, the skull's recent date is consistent with its matching the general physical characteristics of the late Indian population; however, the unusual nasal and palatal

breadths make the specimen important—especially for the comparison with the as yet undated La Brea skull, as discussed by Brooks, below.

#### CALVARIUM ANALYSIS

The calvarium described here (Figs. 2-5) is that of a female between 35 and 40 years of age at the time of death. The musculature and brow-ridge developments are slight, although the lateral por-



*Figure 2.* A deeply-buried human skull from Seal Beach, California. Frontal view.

extension of the cranial length measurement by an occipital bun. The relationship of head length to head height, both basion-bregma height and auricular height, indicates a skull which is within the upper range of medium head height, orthocranic. The breadth-



*Figure 4.* A deeply-buried human skull from Seal Beach, California, Vertical view.

height index is acrocranial for both auricular and basion-bregma height, and appears to be a reflection of the slightly narrow cranial breadth, in relation to the length, rather than an unusually high skull. As there is no mandible, the facial measurements are based only on the upper facial measurements. The upper facial index is in the middle range of the mesen index, although the orbits are narrow for their height, being hypsiconchic. In profile, the face has little or no prognathism; the gnathic index confirms this, as it is within the lower limits of mesognathia.

The most noticeable feature of the facial area is the nasal and palatal region. Neither the nasal height nor breadth measurement are unusual themselves, but each in combination with the other is rare in California and the nasal index, which is within the hyperchamaerhine range, is rare for the whole of North America. The external palatal index is also very broad, brachyuranic, and the breadth of the palate emphasizes the breadth of the face in the maxillary area. The medium index for the upper facial breadth is based on the upper facial height and the bizygomatic breadth and does not reflect the breadth of the nasal, maxillary, and palatal regions. Nasal breadth is apparent in the measurement for the upper nasal, 18 mm., which is almost as broad as the interorbital breadth, 22 mm. There is no nasal depression and the nasal bones (those remaining) extend from the base of the nose with no convexity. The bridge of the nose is broad and low and in life would not have shown much nasal relief.

In observing the general appearance of the calvarium, the contrasting features are the very slight development of the frontal region and the strongly muscled occipital region. The frontal region has no brow ridge projection and only a very slight bulge at glabella. The occipital region, on the contrary, shows a crest which is strong for a female, running just below the occipital bun, and the entire area of nuchal muscle attachment is roughened and irregular. The mastoids are small and feminine, although the supramastoid crest, as well as the lateral occipital crests, are larger than is common among California Indian women. At the juncture of the sagittal and lambdoid sutures is a large wurmian bone, and there are two more medium-sized and one small wurmian bone in the lambdoid suture.

One of the left nasal conchae is swollen and enlarged both anterior-posteriorly and laterally to at least 10 mm. thickness, almost filling the nasal cavity. The external appearance of this swelling is porous and resembles an exostosis.

TABLE 1.

Tooth wear patterns in a deeply-buried human skull from Seal Beach, California.

Right and left incisor 1	Missing
Right and left incisor 2	Medium shovel-shape, heavy wear, dentine exposed
Right and left canine	Excessive wear, dentine completely exposed
Right and left premolar 1 and 2	Enamel of the cusps is worn through to the dentine, but enamel is still present in the valleys
Right and left molar 1	Lingual wear heavy, with exposed dentine; enamel is present on the occlusal surface of the posterior buccal region
Right and left molar 2	Lingual wear heavy with exposed dentine; enamel of the buccal half of the tooth is still present
Right molar 3	Missing
Left molar 3	Two caries in the center of the occlusal surface; enamel worn, but no dentine exposed.

There are no dental abscesses and few dental caries. The major tooth problem was extensive wear (Table 1). The wear pattern follows that considered usual for California Indians (Leith, 1928). All teeth except the upper third left molar are worn down through the enamel to the dentine. This is generally attributed to abrasive content in food due to the grinding of the food in stone mortars or metates, the leaching of acorns in sand, and the cooking of food by stone boiling. The lateral incisors (the medial ones were lost post-mortem) were shovel-shaped on the lingual surface, although the wear pattern has almost eliminated this trait.

The unique breadth of the nasal and palatal regions has created some problems in seeking comparative material. Birdsell (1951) has

compared Santa Catalina Island archaeological crania, measured by Carr, with Murrayians from Australia. The indices for the crania from Santa Catalina Island approximate those of the calvarium being considered. Among the Santa Catalina cranial characteristics are a "nose concave in profile and of unusual breadth" (Birdsell, 1951:36). These also exhibit a "nasion depression deeper . . . than is usual in American groups," as well as a lower vault. In these latter two respects the calvarium diverges from this description, although in photographs of the living individuals, especially the California Indians, the profiles appear to be orthognathous, which is similar to the profile of this calvarium. These comparisons are not intended to support the Amurian theory, but to compare the Seal Beach and Catalina Island crania.

Kennedy (1959) measured a series of both male and female crania from the collections at the University of California Museum of Anthropology, derived from archaeological collections of the Great Basin area of Nevada. The calvarium being described falls within the range of this series for all the female cranial measurements, except those of upper nasalia breadth, external palatal length and breadth, and for several of the indices. Kennedy does state that many of the female nasal indices are in the platyrrhinc classification and that the nasion depression is of medium size and the root and bridge height are also medium, which to some extent agrees with the description of this calvarium.

Some years ago Brooks made a survey of nasal measurements and indices of archaeological crania and living individuals north of Mexico and west of the 100th meridian. Although in this survey many of the groups might have one or other of the nasal measurements, a nasal index of 58.8 does not occur as a mean in any of the series. Several groups approach this index, such as the Paiute female crania nasal mean of 56.5, the Apache female crania nasal mean of 54.5, and the Maidu female crania nasal mean of 54.7. It is interesting that in this series of over 90 tribes and 30 archaeological horizons within these geographical limits, only the Paiute approach closely in their mean the nasal index of the Seal Beach skull.

There are two archaeologically-recovered series of skeletons from Zuma Creek in Los Angeles County and San Nicolas Island (Littlewood, 1960; Rootenberg, 1960). In general there are some resemblances with one or another of their measurements, but there is no basic similarity. The nasal index and upper nasalia breadth is comparable to one of the Zuma Creek females, but the remainder of the

the means approximating most closely that of this calvarium are those of the Paiute females. Further, the teeth wear patterns are consistent with Leith's conclusions regarding attrition based on the California Indian type of food preparation.

The most interesting correlation is that with the La Brea skull, also a female, and still of undetermined antiquity. Despite the more rugged cast of the Seal Beach calvarium, many of the metric and morphological observations made from both skulls are similar. The La Brea cranium, although small and delicate, also is in agreement with descriptions of female cranial series from Southern California.

The Seal Beach female calvarium, though displaying certain extreme features, can be placed within the range of variability displayed by the skeletal populations recovered archaeologically from sites in Southern California and Nevada.

#### ACKNOWLEDGEMENTS

The authors wish to thank the following people for their aid in this project: Mr. Dan Burris (who found and reported the skull); the R. A. Wattson Co. (which facilitated access for field studies); Detective Al Chafe of the Seal Beach Police Department, who examined the skull and notified the Anthropology Department at California State College, Long Beach; Dr. Ethel E. Ewing, Dr. W. J. Wallace, Mr. Charles Case, and other members of the Archaeological Research Associates who made preliminary examinations of the site; Prof. Albert L. Ehrreich of the Geology Department, CSCLB (who aided in preliminary stratigraphic analysis); Dr. Carl L. Hubbs, Scripps Institution of Oceanography, and Dr. Willard F. Libby, Institute of Geophysics and Planetary Physics, UCLA, for their kind cooperation in analyzing shell and obtaining the Carbon-14 date; Mr. Armando Solis of the Los Angeles County Museum of Natural History who photographed the skull; and Dr. Theodore Downs and Mr. Leonard Bessom of the Los Angeles County Museum of Natural History who made the La Brea skull available for study.

Brooks wrote the calvarium analysis. The first section of the paper was written by Conrey, who made the stratigraphic analysis, and by Dixon. We wish to express our appreciation for the comments of colleagues who read earlier drafts.

A preliminary version was given at the Annual Meeting of the Southern California Academy of Sciences, May 19, 1961.

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ARCHAEOLOGICAL SITE SURVEY RECORD

Los Alamitos



- 1. Site LAN-702
- 2. Map Long Beach 7.5 min.
- 3. County L.A.
- 4. Twp. 5 S Range 12 W SW  $\frac{1}{4}$  of NE  $\frac{1}{4}$  of Sec. 3
- 5. Location southeast Long Beach, west from edge of Pac. Coast Hwy., south from edge of Colorado St., along north and west side of a marsh remnant of an Alamitos Bay slough, ca. 600 m. northwest of Los Cerritos Channel (artificial channel)
- 6. Contour 10'-15'
- 7. Previous designations for site \_\_\_\_\_
- 8. Owner \_\_\_\_\_
- 9. Address UTM
- 10. Previous owners (dates) 396 480 E
- 11. Present tenant 7/31/02
- 12. Attitude toward excavation T. Wheeler
- 13. Description of site very dark gray midden, abundant shell with high proportion of unbroken pecten, fishbone
- 14. Area minimum 300 m. N-S by 150 m. E-W
- 15. Depth \_\_\_\_\_
- 16. Height \_\_\_\_\_
- 17. Vegetation weeds and grasses, marsh plants at edge of site
- 18. Nearest water slough remnant
- 19. Soil of site very dark midden, sandy, mica
- 20. Surrounding soil light sandy
- 21. Previous excavation \_\_\_\_\_
- 22. Cultivation plowed; misc. disturbance
- 23. Erosion \_\_\_\_\_
- 24. Buildings, roads, etc. dirt road, oil facilities
- 25. Possibility of destruction -very high; condominium said to be planned
- 26. House pits \_\_\_\_\_
- 27. Other features \_\_\_\_\_
- 28. Burials probability high if interpretation under #30, below, is correct.
- 29. Artifacts several mano frags., much chipping waste. For potential, see #30 below.

30. Remarks Site may be like LAN-272 to judge by location and soil type; LAN-272 was village with concentrated burial area, late period, many burial offerings. Sites in such low-elevation locations next to sloughs are very rare along the coast. Tests may help assess significance. In any case, sites in such locations are so rare now, highest priority should be considered for preservation intact.

Note: after reported and initial draft of site sheet compiled by Don Clutter and Jerry Howard, CSULB

- 31. Code number \_\_\_\_\_
- 32. Sketch map \_\_\_\_\_ by \_\_\_\_\_
- 33. Sketch map \_\_\_\_\_ by \_\_\_\_\_
- 34. Date 1 Aug 74
- 35. Recorded by Clutter and Howard, modified by Dixon
- 36. Photos LAN-271 roll, by Clutter; with



ARCHEOLOGICAL SITE RECORD

19-001821

Permanent Trinomial: CA-LAN-1821 Supplement

Other Designations: McKenna 1

Page 1 of 3.

1. County: Los Angeles
2. USGS Quad: Los Alamitos (7.5') XXXXX (15') Photorevised 1981
3. UTM Coordinates: Zone 11 398150 m Easting 3735700 m Northing ( )
4. Township 5S Range 12W; NW XX NE XX SW XX % of NE % of Section 11 Base Mer. SBBM ( )  
and and
5. Map Coordinates: 544mm mmS 97mm mmE (from NW corner of map) 6. Elevation 20' (+/-) ( )
7. Location: In Texaco Oil Field located to the south and east of the intersection of Westminster Ave. and Studebaker, Long Beach. Also located to the west of the channeled San Gabriel River ... on low sand bar within the oil field. ( )
8. Prehistoric XXXX Historic \_\_\_\_\_ Protohistoric \_\_\_\_\_ 9. Site Description Shell midden dominated by the presence of oyster shells. Site may extend to the south, under a portion of blacktop, and into the developed portions of the field. Additional shell was noted in the backdirt of rodent holes. ( )
10. Area 15 meters m( ) x 100 meters m( ) 1500 m2 m<sup>2</sup>.  
Method of Determination: pacing ( )
11. Depth: 1 meter cm Method of Determination: land profiles and land forms ( )
12. Features: none observed ( )
13. Artifacts: none observed ( )
14. Non-Artifactual Constituents and Faunal Remains: additional shell types and site is located adjacent to historic bay. ( )
15. Date Recorded: June 1, 1990 16. Recorded By: Jeanette A. McKenna ( )
17. Affiliation and Address: McKenna et.al., 6202 S. Friends Ave., Whittier, CA 90601; (213) 696-3852 ( )

See Continuation Sheet (X)

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION

Permanent Trinomial: LAN-1821 Mo. 6 Yr. 90

## ARCHEOLOGICAL SITE RECORD

Other Designations: McKenna 1

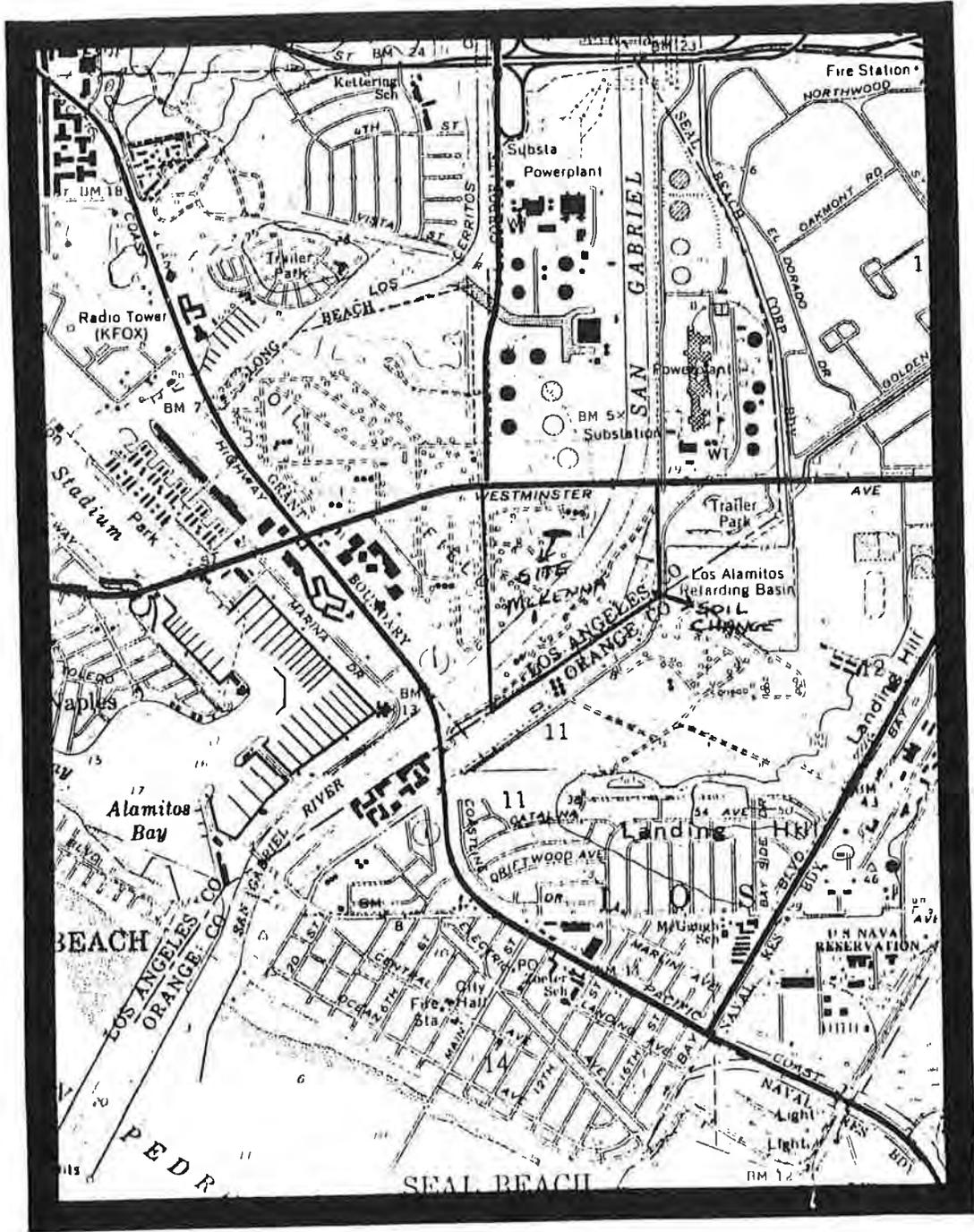
Page 2 of 3.

18. Human Remains: none observed ( )
19. Site Disturbances: grading and terracing of the oil field.  
\_\_\_\_\_  
\_\_\_\_\_ ( )
20. Nearest Water (type, distance and direction): San Gabriel River to east of site; Pacific Ocean south of project area ( )
21. Vegetation Community (site vicinity): Coastal Sage Scrub Plant List ( )
22. Vegetation (on site): Coastal Sage Scrub  
\_\_\_\_\_  
\_\_\_\_\_ ( )
23. Site Soil: sandy loam ( )
24. Surrounding Soil: sandy loam ( )
25. Geology: coastal plain ( )
26. Landform: coastal plain near bay ( )
27. Slope: none ( ) 28. Exposure: open ( )
29. Landowner(s) (and/or tenants) and Address: Texaco and/or Kaufman & Broad, Los Angeles, California. ( )
30. Remarks: Site probably extends to the south, below black top. Some additional areas of possible midden soils where grading did not disturb the natural soil levels. ( )
31. References: see McKenna 1990, on file, UCLA-AIC.  
\_\_\_\_\_  
\_\_\_\_\_ ( )
32. Name of Project: California Shores Phase I Archaeological Survey  
\_\_\_\_\_ ( )
33. Type of Investigation: Intensive Archaeological Survey ( )
34. Site Accession Number: NA Curated At: NA ( )
35. Photos: on file, McKenna et.al., Whittier, CA 90601 ( )

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
ARCHEOLOGICAL SITE  
MAP

Permanent Trinomial: LAN-1821 1 6 90  
mo. yr.  
Temporary Number: MCKENNA 1  
Agency Designation:

Page 3 of 3.





State of California - The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
 OFFICE OF HISTORIC PRESERVATION

SIERRA CLUB 1984

HISTORIC RESOURCES INVENTORY

IDENTIFICATION AND LOCATION

Ser. No. \_\_\_\_\_  
 National Register status \_\_\_\_\_  
 Local designation \_\_\_\_\_

- 1. Historic name Long Beach Marine Stadium
- 2. Common or current name same
- 3. Number & street Appian Way at Nieto Cross-corridor \_\_\_\_\_  
 City Long Beach, California Vicinity only \_\_\_\_\_ Zip 90814 County Los Angeles
- 4. UTM zone \_\_\_\_\_ A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_ D \_\_\_\_\_
- 5. Quad map No. \_\_\_\_\_ Parcel No. \_\_\_\_\_ Other \_\_\_\_\_

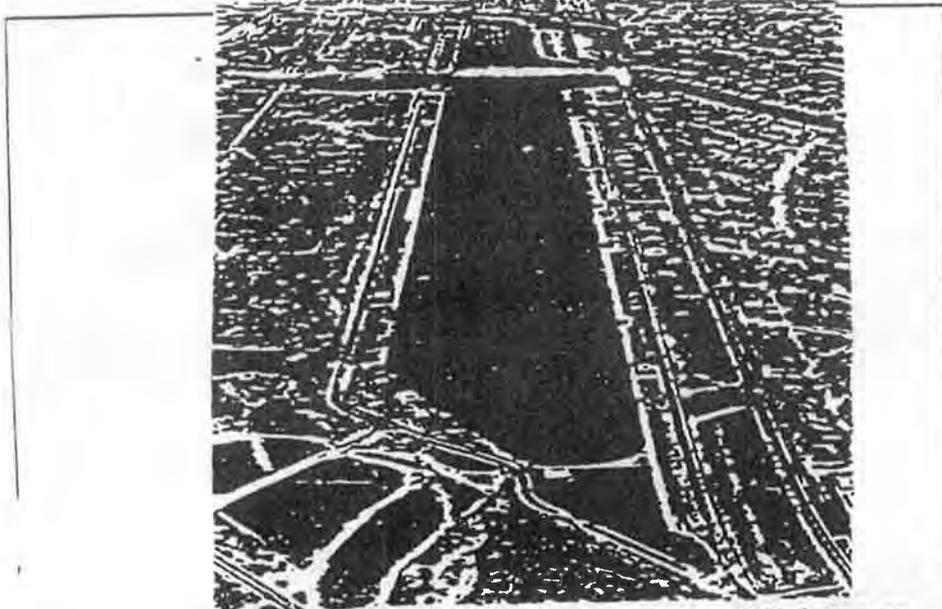
DESCRIPTION

- 6. Property category Historic Site If distinct, number of documented resources \_\_\_\_\_
- 7. Briefly describe the present physical appearance of the property, including condition, boundaries, related features, surroundings, and (if appropriate) architectural style.

Long Beach Marine Stadium: The rowing course (venue) for the 1932 Olympics ( X Olympiad) 2000 meters long and approximately 100 yards wide.

Located on the eastern edge of Long Beach, near Alamitos Bay, the course runs north/northwest. Its northern shore is lined with quarry rock (with the exception of a few hundred feet of a boat launch ramp) and its southern shore a combination of quarry rock and sandy beach.

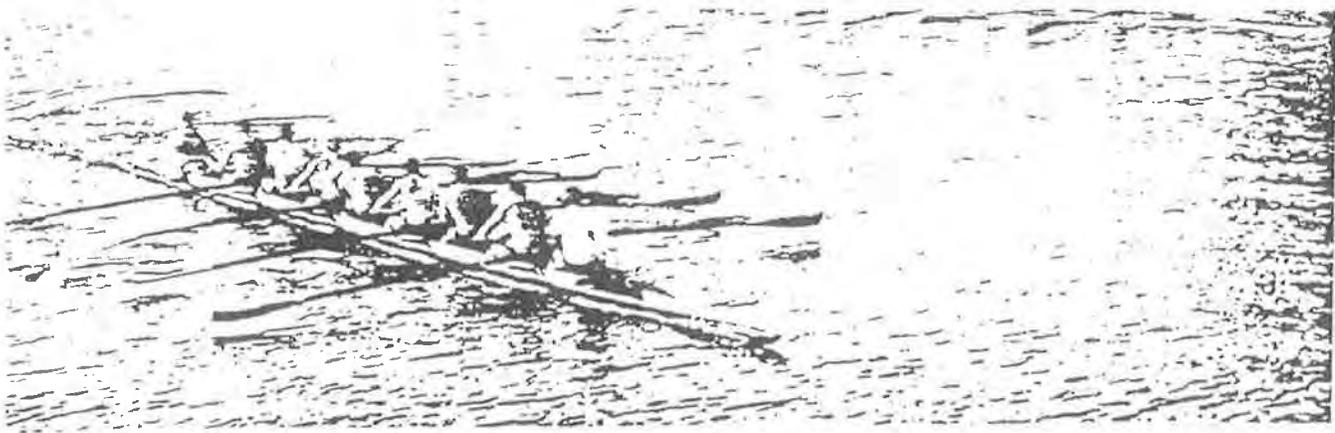
When updating the venue for the subsequent Olympic Trials, there was a modification in the site which shifted the starting line from what is now the second street bridge to its present position, near the Long Beach Yacht Club. With the course thus shifted, approximately 280 meters of the original course were filled in, creating a park and support facilities. In so doing, the original boathouse was no longer situated near the water; a new boathouse was constructed midway down the course.



- 8. Planning agency \_\_\_\_\_
- 9. Owner & address  
City of Long Beach  
333 W. Ocean Blvd.  
Long Beach, CA 90802
- 10. Type of ownership Public
- 11. Present use Recreation
- 12. Zoning \_\_\_\_\_
- 13. Threats \_\_\_\_\_

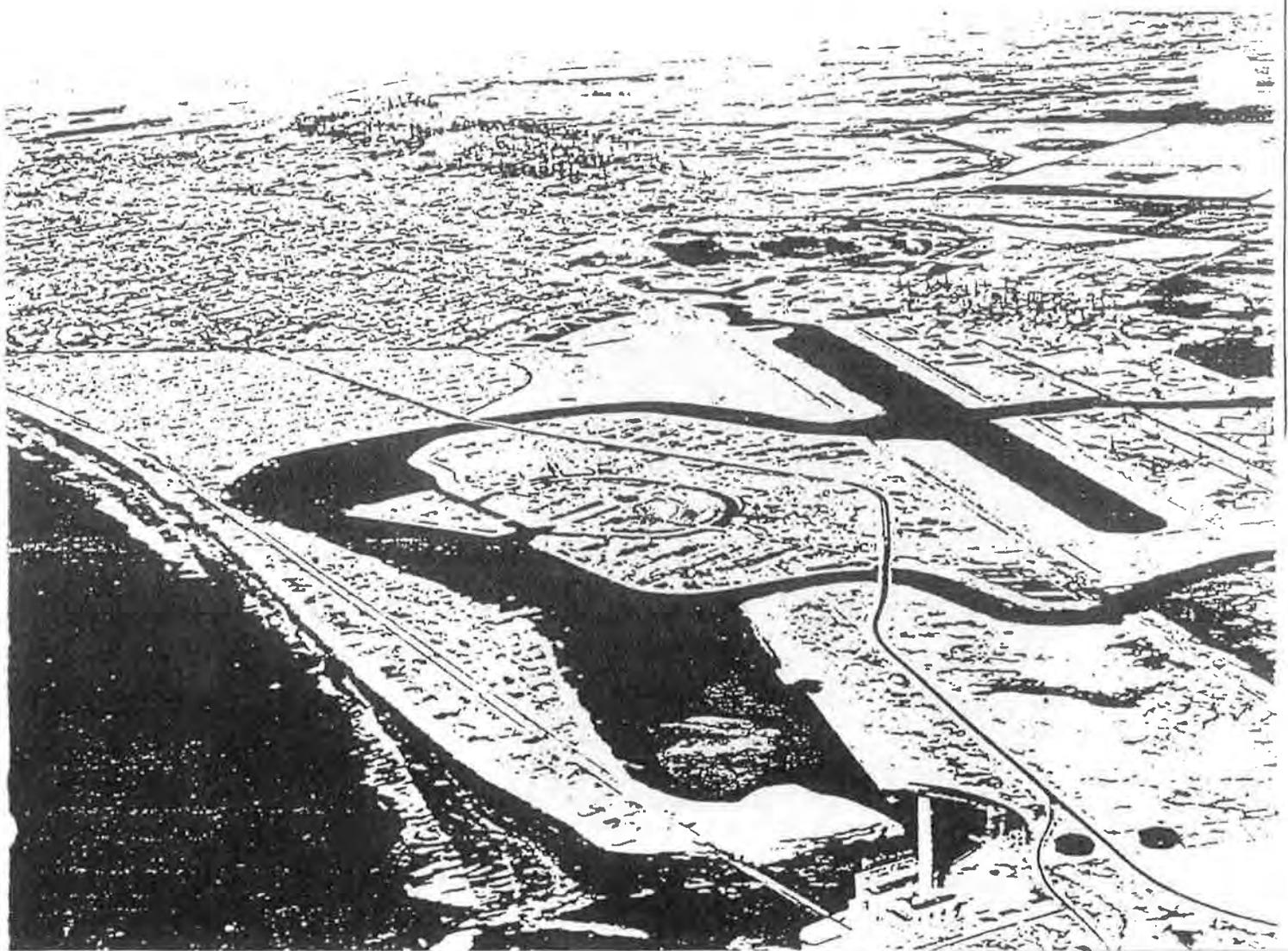
Send a copy of this form to: State Office of Historic Preservation, P.O. Box 942896, Sacramento, CA 94296-0001

\* Complete these items for historic preservation compliance projects under Section 108 (36 CFR 800). All items must be completed for historical resources survey information.



## LONG BEACH MARINE STADIUM

Stretching for a mile and a quarter in a straight line, and measuring 600 feet in width, the rowing course of this splendid marine stadium is declared by international experts to be the finest ever provided for the Olympic rowing events. Excellent boat houses, dressing rooms and club facilities were provided for the contestants, while Alamitos Bay, of which the stadium is a part, was available for practice purposes. The City of Long Beach has cooperated with the Organizing Committee by enclosing the entire rowing course with a fence and trees, thus making it the only stadium in the world devoted exclusively to rowing and boating. It will remain, after the Games of the Xth Olympiad, as a splendid addition to the many recreational facilities which Long Beach has provided for its residents and the many tourists who visit it annually.



## 8. Significance

Year	Areas of Significance—Check and justify below			
prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
1600-1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/humanitarian
1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> transportation
X 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> other (specify)
	<input type="checkbox"/> invention			athletics, recreation

Specific dates 1932

Builder/Architect Gould, Moffit and Nichol

### Statement of Significance (In one paragraph)

The Long Beach Marine Stadium (rowing facility), is significant as the first man-made site for rowing built in the country. It was constructed to serve as a venue for the X Olympiad, held in Los Angeles in 1932. The facility has been used continuously for rowing and other recreational purposes since that time, and has served as a training ground for champion rowers since 1932. When the Marine Stadium was constructed it was envisioned that Long Beach would become the rowing capitol of the nation.

The channel for the Long Beach Marine Stadium was dredged in 1930. The City Council pledged \$77,000 to fix up the course for the Olympics. Improvements included straightening the course, erecting a fence, and comfort station. The Olympic Committee agreed to pay for the cost of erecting a boathouse, and lining the course with bleachers. Due to the quality, amount and type of the improvements made to the course, the City Council insured that a part of the X Olympiad would be held in Long Beach.

One article in the Long Beach Press Telegram which reported on the opening ceremonies quoted Zach Farmer, manager of the Olympic Games as follows;

The (Marine) Stadium will mark the first time in the history of the world that a Marine Stadium has been erected. That is because your course, unexcelled anywhere in the world, is the only course where spectators can see both the beginning and the finish of the events . . .

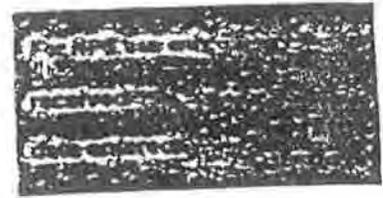
Your stadium and rowing course will mean that a constant series of events<sup>2</sup> will be underway . . . your course offers the best ever found.

One of the advantages of a man-made site for rowing was touched on in the Olympic publication for the events. It said; "The width of the course permits four teams to race abreast, eliminating unnecessary heats, with the result that the oarsmen entered the finals at the peak of their form." The book goes on to note the highlights of the competition, which was dominated by the Americans. The Americans had done quite well in Olympic competition rowing since 1920, when they began a winning streak that did not end until 1948. The race at Long Beach was very exciting, the American team winning by less than one-half length.

After the conclusion of the X Olympiad, the Long Beach Marine Stadium continued to be used by the Long Beach Rowing Association. The Long Beach Rowing Association announced their organization on July 28, 1932, just four days after the opening ceremonies for the Stadium. The association was formed

United States Department of the Interior  
National Park Service

# National Register of Historic Places Inventory—Nomination Form



Continuation sheet Marine Stadium

Item number 8

Page 2

to place the city of Long Beach on the map as an important aquatic center. The Rowing Association was open to all, but was primarily composed of former varsity rowers from the Los Angeles club. Henry Penn Burke, president of the American Rowing Association of Philadelphia, where all rowing takes place on the Schukill River said to the new association:

You have the greatest, finest and most perfect rowing course in the world. You can go far toward capitalizing on this asset and help the cause of rowing on the Pacific Coast with the organization of your club.

In addition to the use of the facility as a rowing center, it was also used for other water oriented sporting events. Even during the opening ceremonies, the Marine Stadium was used for an exhibition of racing runabouts, Class A and C outboard hydroplanes and exhibition races of various motor boats. These uses have continued into present times.

An article from 1939 stated:

Long Beach in the matter of marine sports is making use of a set-up equaled by few other centers in the world. Speed boating on the noted Marine Stadium has led the way . . .

Proof of the Stadium's continued popularity was found in a 1969 article which stated that 33 events were scheduled for 1969 at the Marine Stadium. In 1976, the Stadium was the site of National Drag Boat Championships. Most recently, the site was used for the newest of aquatic sports; the U.S. Series Triathlon, which had the largest entry group to date.

the Long Beach Rowing Association's history of the Marine Stadium sums up the continued significance best;

From 1968 to the present, the facility has been in constant use as a site for collegiate rowing competition and inter-club events. It further was selected as the site for the 1976 Woman's National Rowing Championships, and the 1976 Women's Olympic Sculling Trials, and was twice designated as an Olympic Development Center. In 1984 it was the location of the Olympic Woman's Sculling Camp and Trials. The Long Beach Rowing Center has been host to international competitors from all over the world, including Canada, Mexico, West Germany, Finland and Argentina.

DEED 753

Deed Granting Land to City  
 of Long Beach for Marine for  
 Stadium: Page 3 #3=Venue for  
 boating: DEED ON FILE WITH  
 LONG BEACH CITY CLERK

THIS INDENTURE Made this 12<sup>th</sup> day of June, 1923,  
 between SAN GABRIEL RIVER IMPROVEMENT COMPANY, a corporation  
 duly organized and existing under the laws of the State of  
 California, party of the first part, and the CITY OF LONG BEACH,  
 a municipal corporation of the State of California, party of the  
 second part;

## WITNESSETH:

That the party of the first part, for and in consideration  
 of the sum of ten dollars, in lawful money of the United States, to  
 it in hand paid, receipt of which is hereby acknowledged, does, by  
 these presents, grant, bargain, sell, convey and confirm unto the  
 said party of the second part, and to its successors and assigns,  
 forever, all that certain parcel of land situate in the County of  
 Los Angeles, State of California, and bounded and described as

Wit:

All that portion of Tract 1779 as shown  
 on a map recorded in Map Book 22, Pages 26 and 27  
 Records of Los Angeles County, described as  
 follows:

All of Lot 1 of said Tract No. 1779, also  
 all of Lot 2 of said Tract No. 1779;

All that portion of Lot 3 of said Tract  
 No. 1779 lying southwesterly of a line drawn  
 parallel with and eight hundred (800) feet  
 northeasterly of the northeasterly line of the  
 Pacific Electric Railway Company's private  
 right-of-way as shown on said map of said Tract  
 No. 1779;

All that portion of Lot 4 of said Tract  
 No. 1779 lying southwesterly of a line drawn  
 parallel with and eight hundred (800) feet

All that portion of Lot 1, Tract No. 1077  
 as shown on a map recorded in Map Book 18, Page  
 195, Records of said County, lying southwesterly  
 of a line drawn parallel with and seven hundred  
 (700) feet northeasterly of said northeasterly

line of said Pacific Electric Railway Company's private right-of-way as shown on said map of said Tract No. 1077.

Subject to the following conditions and restrictions:

That the above described property, and the [redacted] ball, at all times, be kept and maintained [redacted] of the second part, and its successors, as and for a public park, and used only and solely for public park purposes, which said public park purposes shall include, among other things, the acquisition, construction and completion, and the maintenance, operation and use, of golf, bowling on the green and other game courses; horseback riding trails; baseball, football, basketball, townball, handball, volleyball, aviation, polo, hockey, shinny, athletic, playground and other game and sport fields; tennis, roque, croquet, quoit, horseshoe and other game and sport courts; lakes, lagoons, channels, pools and [redacted] courses for swimming, boating, hydro-planing, [redacted] all kinds of aquatic sports, games and athletics; [redacted] card game, ping-pong, gymnasium, skating rink, swimming pool, dancing and other indoor game and athletic quarters; botanical gardens; aquariums; museums; stadiums; fairgrounds; exposition grounds; outdoor theaters; amusement zones; cafes; cafeterias; customary public park stores and concessions; including the construction, erection and maintenance of all buildings and other structures necessary or convenient therefor; nor shall any part, or parcel, thereof ever be used for any other purposes; provided, further, that [redacted] building more than one story is [redacted] [redacted] waterway to be dredged through said premises; and provided, [redacted] that every building constructed, erected or maintained within one hundred and fifty feet of the northeast line of said described

property shall face said northeast driveway and shall be of an attractive design and well and substantially built.

2. The party of the second part agrees to commence forthwith and to prosecute diligently the necessary application to the War Department of the United States of America for permission to ~~fill~~ or alter certain channels now existing on and over a portion of the above described property so as to substitute therefor the channel to be constructed, as hereinafter provided, and further agrees within ninety days from the date of receiving such permit from the War Department of the United States of America to actually begin the dredging and filling hereinafter referred to and to prosecute the same with due diligence until completed and to complete the same within two and one-half years from the date of this agreement; provided that the time of all delays in issuing such permit, not caused by the party of the second part, shall be added ~~to the~~ time of two and one-half years within which to complete ~~the same~~.

3. The party of the second part agrees to improve said parcel of land as a public park and, as a part of said improvement, to provide a lake in said park for boating purposes by dredging a canal near the southwesterly boundary of the strip or parcel of land above described running for at least three-fourths of the length of said strip and of sufficient depth and width to provide material to fill the park land not embraced in said channel so as to render the same usable for ordinary park purposes and to provide ~~for the~~ the improvements agreed to hereinafter in ~~the~~ ~~the~~ party of the second part agrees to ~~provide~~ and to fill an adjoining parcel of land belonging to the party of the first part described in Exhibit B, hereto attached, to a level as high as the retaining wall of the Rivo Alto Canal in Tract No.

and described premises, together with the appurtenances, unto the said grantee, its successors and assigns, forever.

IN WITNESS WHEREOF, the said party of the first part, its corporate name and its corporate seal, by its [redacted] thereunto duly authorized the day and year first hereinabove written.

SAN GABRIEL RIVER IMPROVEMENT COMPANY  
By F. Giffith Vice President  
By A. S. Walker Secretary

STATE OF CALIFORNIA, }  
COUNTY OF LOS ANGELES, } SS.

On this 13th day of June in the year one thousand nine hundred and twenty-three before me, J. E. BROWN, a Notary Public in and for said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared F. Giffith known to me to be the Vice President, and A. S. Walker known to me to be the Secretary of the San Gabriel River Improvement Co. that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of the Corporation therein named, and acknowledged to me that such Corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in said County, the day and year in this certificate first above written.  
J. E. Brown  
Notary Public in and for Los Angeles County, State of California.

[Corporation]



LONG BEACH MARINE STADIUM  
LOCATED AT THE EASTERN EDGE  
OF LONG BEACH NEAR ALHAMBRA BAY

# LOS ANGELES AND VICINITY

SCALE 0 1 2 3 4 5 MILES



OLYMPIC TRIALS OFFICE  
 5255 APPIAN WAY  
 LONG BEACH, CALIF.  
 90803  
 PHONE GE 4-4444

W.J. SKIBICKI - TRIALS  
 COORDINATOR

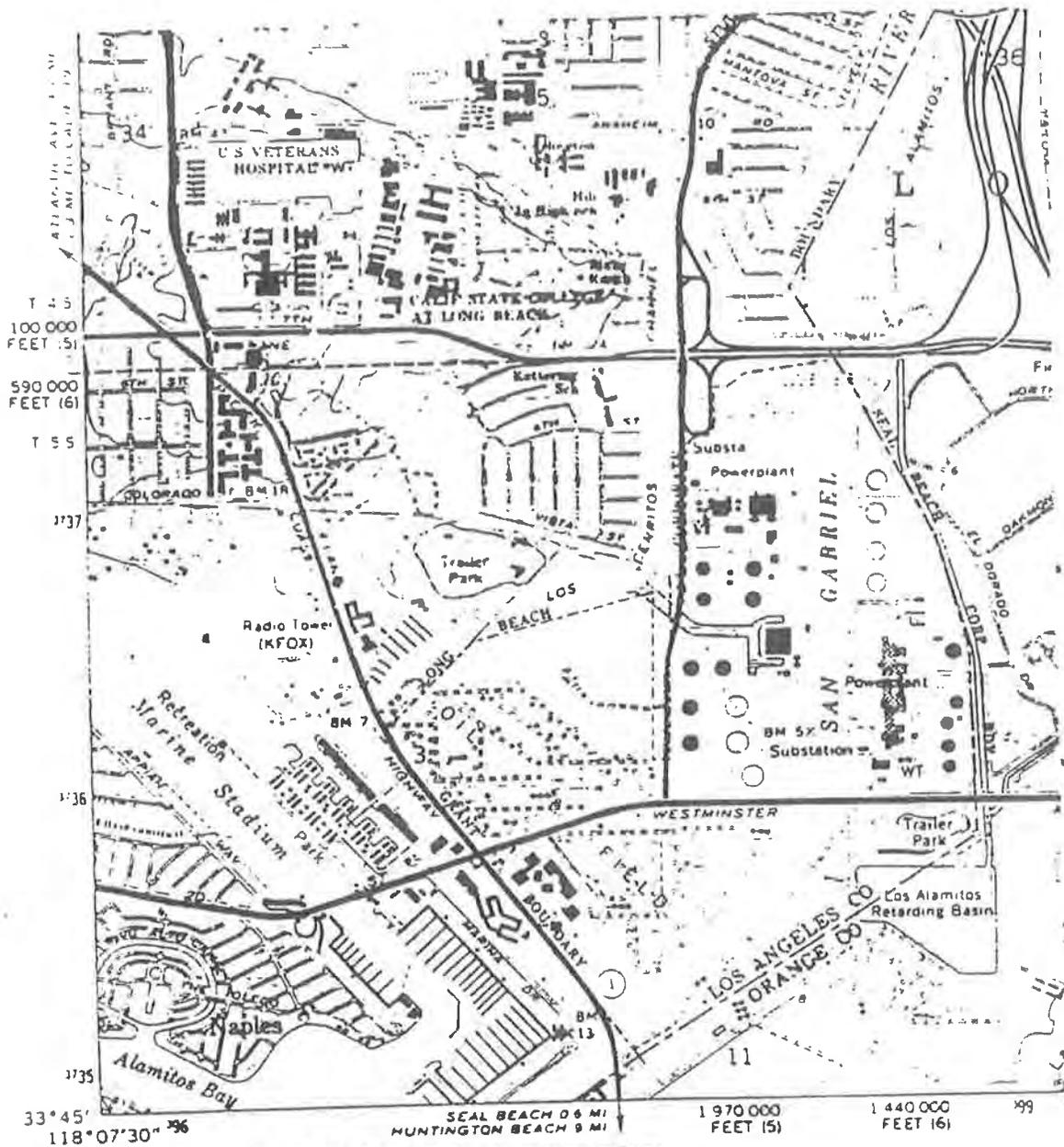
TO SAN DIEGO FWY.  
 & L.B. AIRPORT

MAP FROM 1968 OLYMPIC  
 TRIALS: SHOWS MARINE  
 STADIUM IN RELATIONSHIP  
 TO MAJOR FREEWAYS AND  
 LOS ANGELES AIRPORT



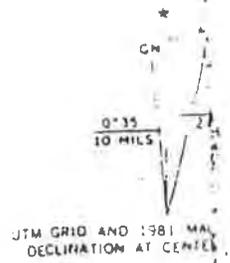
## LONG BEACH 1968 OLYMPIC TRIALS

CITY OF  
 SEAL BEACH



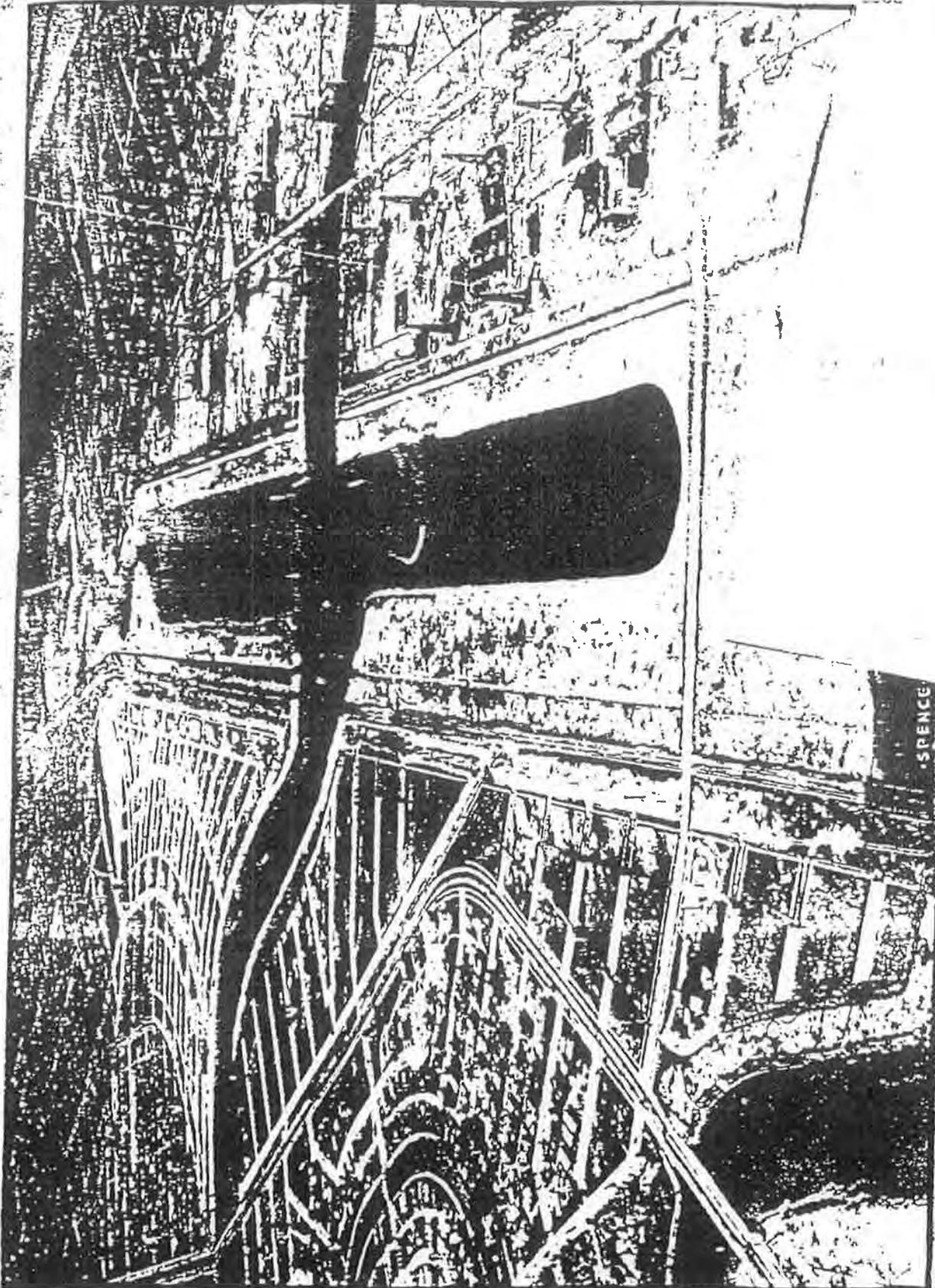
LONG BEACH  
2301 / SW

Mapped, edited, and published by the Geological Survey  
 Control by USGS, NOS/MOAA, and Los Angeles County and Orange County  
 Planimetry by photogrammetric methods from aerial photographs  
 taken 1963. Topography by planetable surveys 1964  
 Selected hydrographic data compiled from NOS chart 5148 (1965)  
 This information is not intended for navigational purposes  
 Polyconic projection. 10,000-foot grid ticks based on California  
 coordinate system, zones 6, 7, and 5. 1000-meter Universal  
 Transverse Mercator grid ticks, zone 11, shown in blue  
 1927 North American Datum. To place on the predicted  
 North American Datum-1983 move the projection lines  
 1 meter north and 85 meters east as shown by dashed  
 corner ticks  
 Dotted land lines established by private surveys  
 This map lies within a subsidence area  
 Vertical control based on latest available adjustment  
 There may be private inholdings within the boundaries of  
 the National or State reservations shown on this map  
 Revisions shown in purple and woodland compiled from  
 aerial photographs taken 1978 and other sources. This  
 information not field checked. Map edited 1981



19-186115

PHOTO OF MARINE STADIUM  
1932: LONG BEACH PUBLIC  
LIBRARY: MARINE STADIUM  
COLLECTION



United States Department of the Interior  
National Park Service

National Register of Historic Places  
Inventory—Nomination Form



Continuation sheet Marine Stadium

Item number 8

Page 3

The Marine Stadium continues to be an important sporting resource to the City of Long Beach, a place where aquatic history continues to be made.

1. Long Beach Independent Press Telegram, "Oil Money to Finance Bay Stadium", January 24, 1931.

2. Long Beach Independent Press Telegram, "Long Beach Envisioned as U.S. Rowing Capitol", July 24, 1932.

3. Long Beach Sun, "Long Beach Rowing Club Organization Perfected", July 28, 1932.

4. Loc. cit.

5. Long Beach Sun, "Gala program to Dedicate New Stadium", July 8, 1932.

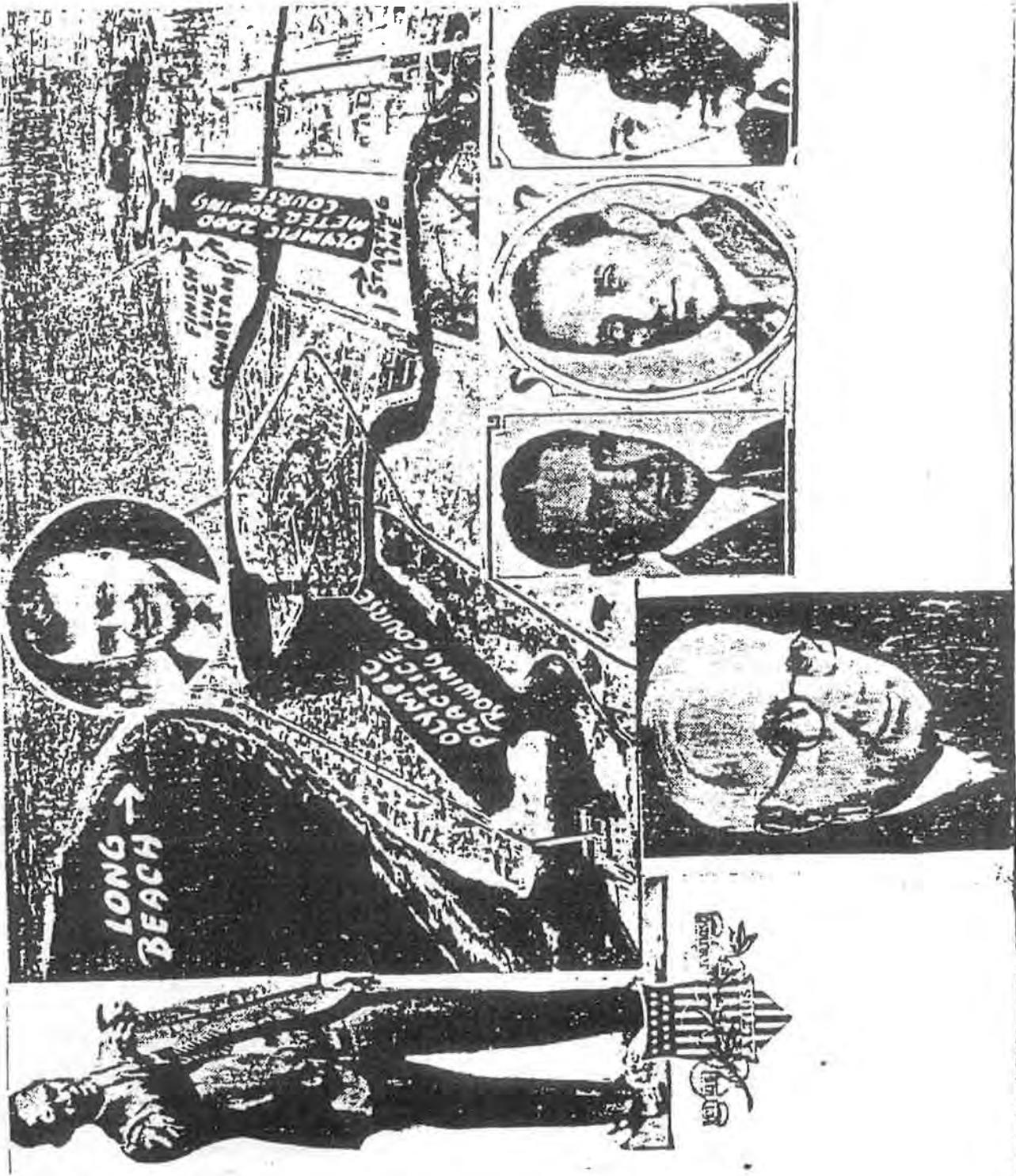
6. Long Beach Press Telegram, "Alamitos Bay Marine Stadium Scene of Major Regattas", January 2, 1939.

7. Long Beach Independent Press Telegram, "Marine Stadium Schedule Announced", February 9, 1969.

8. Independent Press Telegram, "Big Daddies of Drag Boats Roar at Marine Stadium", August 5, 1976.

Marine Park Stadium, scene of the Olympic Games rowing regatta August 9-13, inclusive, in 1932, is shown in the excellent airplane photo. On this course, straight as an arrow more than 2000 meters long with an average depth of seven meters, champion oarsmen from at least twenty nations will gather for the quadrennial classic. Permanent improvements on the course, estimated at \$100,000, will be started by the Olympic Committee immediately after January 1.

LONG BEACH PUBLIC LIBRARY

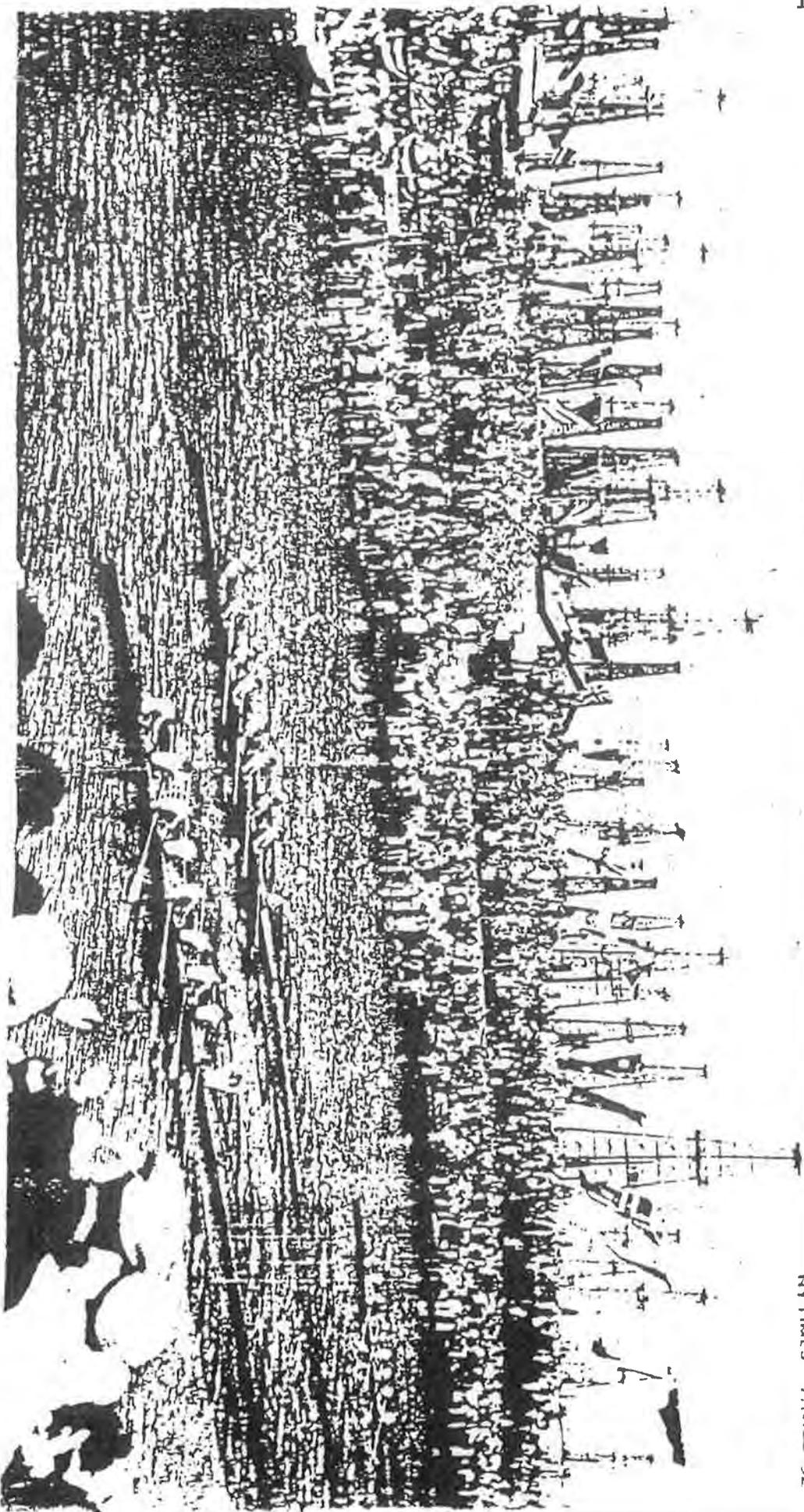


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NYTIMES 7.16.32



SEACH PUBLIC LIBRARY

1932

OLYMPICS-1932

## 303 Olympic Stars Feted in This City

Report to Chamber Directors Reveals Value of Games to Long Beach.

Long Beach entertained 303 visiting athletes from sixteen nations and housed 145 of them from ten nations for the Olympic Games, according to a report to the board of directors of the Chamber of Commerce today by Acting Secretary Ray O. Baldwin. The report was prepared by Burrill S. Mills, Secretary of the Olympic Reception Committee.

Appreciation for the work of Captain Robert Henderson, chairman of the committee, and Secretary Mills was orally expressed by the board. Letters to those who co-operated in the reception were ordered sent by the directors in the name of the Chamber.

Stress was laid in the report and in the comment by directors on the value to the harbor of the work of Secretary Mills, who made it a point to show the city's water facilities to the visiting officials with whom it would count the most.

Further publicity for Long Beach was assured by the entertainment of visiting journalists, it was said.

Olympics-1932 L. B. COLL

## Leaders Named to Aid Olympic Fund Campaign

Appointment of a Long Beach committee to assist in financing American athletic teams which will compete in the Olympic Games at Los Angeles and Long Beach next Summer was announced today by Lon E. Peek, Long Beach representative of the American Olympic finance committee. George W. Graves, Detroit, is chairman of the national body.

The list of committeemen in Long Beach includes Paul C. Gramham, N. H. Bennett, J. B. Hines, A. L. Olliger, C. C. Lewis, C. F. Hale, E. C. Denio, Dr. Henry Kendall Booth, Rev. George P. Taubman, Otto Bayler, Fire Chief William S. Minter, Chief of Police J. S. Yancy, Police Captain William H. Dovey, J. C. Coulter, Assistant Chief of Police C. F. Robberson, W. P. Nestle, Edward M. Bryant, Oscar J. Seiler, John H. Chamness, George Craig II, Charles H. Tucker, Lieut. Governor Frank F. Merriam, J. E. Hatch, W. F. Prisk, Senator Ralph H. Clock, A. T. Jergins, C. A. Buffum, Sam Belover, Thomas R. Merrell, Charles H. Hunt, Dr. R. A. Terry, J. W. V. Steele, James W. Hanbery, Bruce Mason, Dr. J. E. Walker, Harry L. Cohn, John Schinner, Sam K. Rindge, Will J. Reid, Major E. S. Dobbins, Captain Robert Henderson, George Rochester, Howard Deems, C. J. Walker, L. E. Barker, Dr. Walter B. Hill, L. D. Frey, Rex G. Sands, J. S. Holton, Harvey C. Fremming, Harry H. Slauch, Hugh A. Marti, H. S. Beckman, Graydon Hoffman, Norman Abla and Franklin W. Robinson.

It is planned to open the Olympic financing campaign about October 1, Mr. Peek announced today.

L. B. COLL.

LONG BEACH PUBLIC LIBRARY

Olympic 1932 Rough row 19-186115

A recent article about the 1932 Olympics said the rowing teams stayed in a Long Beach hotel. At that time, I lived on 11th Street near Bennett Avenue and several houses displayed flags from various countries. I recall that the rowing teams stayed in the houses on Bennett. Is that true? W.R., Long Beach.

Some athletes may have stayed with friends in private homes, but we couldn't find a reference to any official lodging arrangements on Bennett in the numerous books and newspaper clippings we checked.

Most male athletes stayed at the Olympic Village, a Baldwin Hills bungalow complex built for the games, and the female competitors were housed in a Los Angeles hotel. But the U.S. rowing team complained that the daily bus ride from the village to Long Beach Marine Stadium was too tiring, and they were moved to the Lafayette Hotel, 144 Linden Ave., said Norris Graham, a former Long Beach resident who was the coxswain on the UC Berkeley crew that won a gold medal in 1932.

Long Beach advertising executive Don Davis, who was the assistant manager of the Lafayette Hotel in 1932, told Action Line he recalls that some of the foreign rowing teams were housed in other Long Beach hotels, but he doesn't believe any private homes were used. Davis and Graham said that during the games, many Long Beach homes, especially in the area where you lived, displayed flags from various countries as a welcome sign for the athletes.

The city developed an existing salt-water lagoon into the marine stadium for the games, and the five-day rowing competition attracted 120,000 spectators. The eight-oar final event in which Graham's team came from behind to beat the Italian crew by only three seconds was called by race officials "the greatest rowing spectacle America had ever seen."

July 27 1938

Olympics-1932 L. B. COLL

## OFFICES OF GAMES ARE OPEN HERE

Offices of the Olympic Games Committee for Rowing were opened today in the Chamber of Commerce building. W. W. Monahan, who has charge of the rowing events at the Marine Stadium, will be in charge of this office for the sale of tickets and the official Olympic buttons.

Miss Marjorie Geer will be in charge of the desk, where official Olympic information can be obtained. Long Beach has a quota of \$750 for the expenses of the contestants in the rowing games. This will be made up by the sale of membership tickets and official buttons.

Miss Geer, formerly with Procter & Gamble, also was secretary to Henry King with the official regatta at the Pacific Southwest Exposition. All tickets for the Olympic Games will be sold here and reservations made. The tickets can be obtained after May 15. The offices in the Chamber of Commerce will remain until the buildings now under construction at the Marine Stadium are ready for occupancy. This probably will be some time late in June. Monahan then will move this office to the Marine Stadium, but the ticket office will remain at the Chamber of Commerce.

Olympics-1932 L. B. COLL

## Olympic Rose Now Being Sold in Long Beach

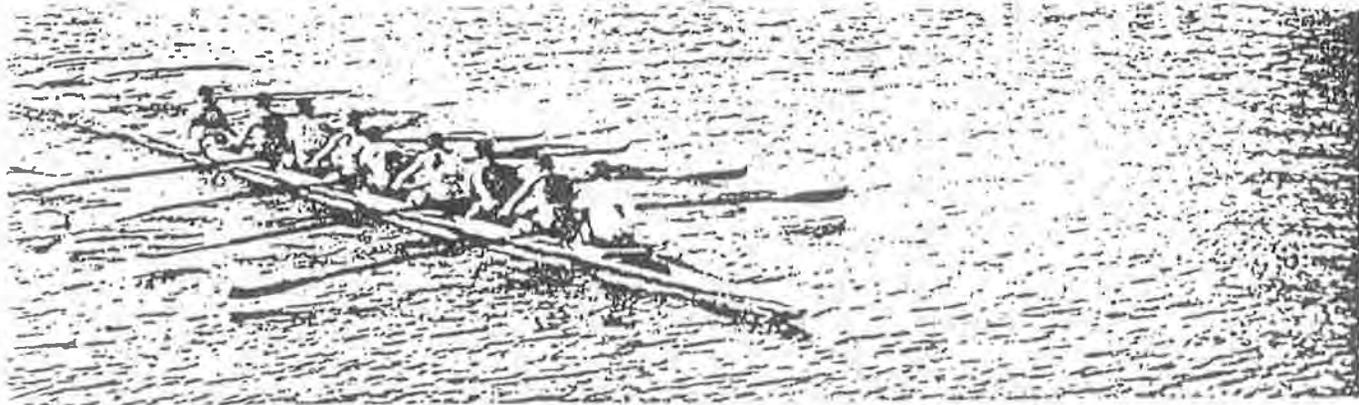
Even nature has been drafted to answer the demand for special Olympiad recognition. The newest creation to embody the spirit of the coming Games is the Olympic Rose, a patented garden bush developed by a Los Angeles grower and sold exclusively in Long Beach by Newcomb's.

The blooms, which duplicate in formation the hot house rose, carry out the Olympiad colors, red and yellow. Yellow at the base, the flowers shade gradually into a rich red at the edge of the rose petal.

Under a new law, a flower developed and patented by a certain grower can be raised by him alone. This particular rose was created especially for the Olympiad as being particularly in keeping with the beautification plans being featured in Long Beach and other cities where the games are to be staged. One florist in each city is selected to retail the rose.

L & H

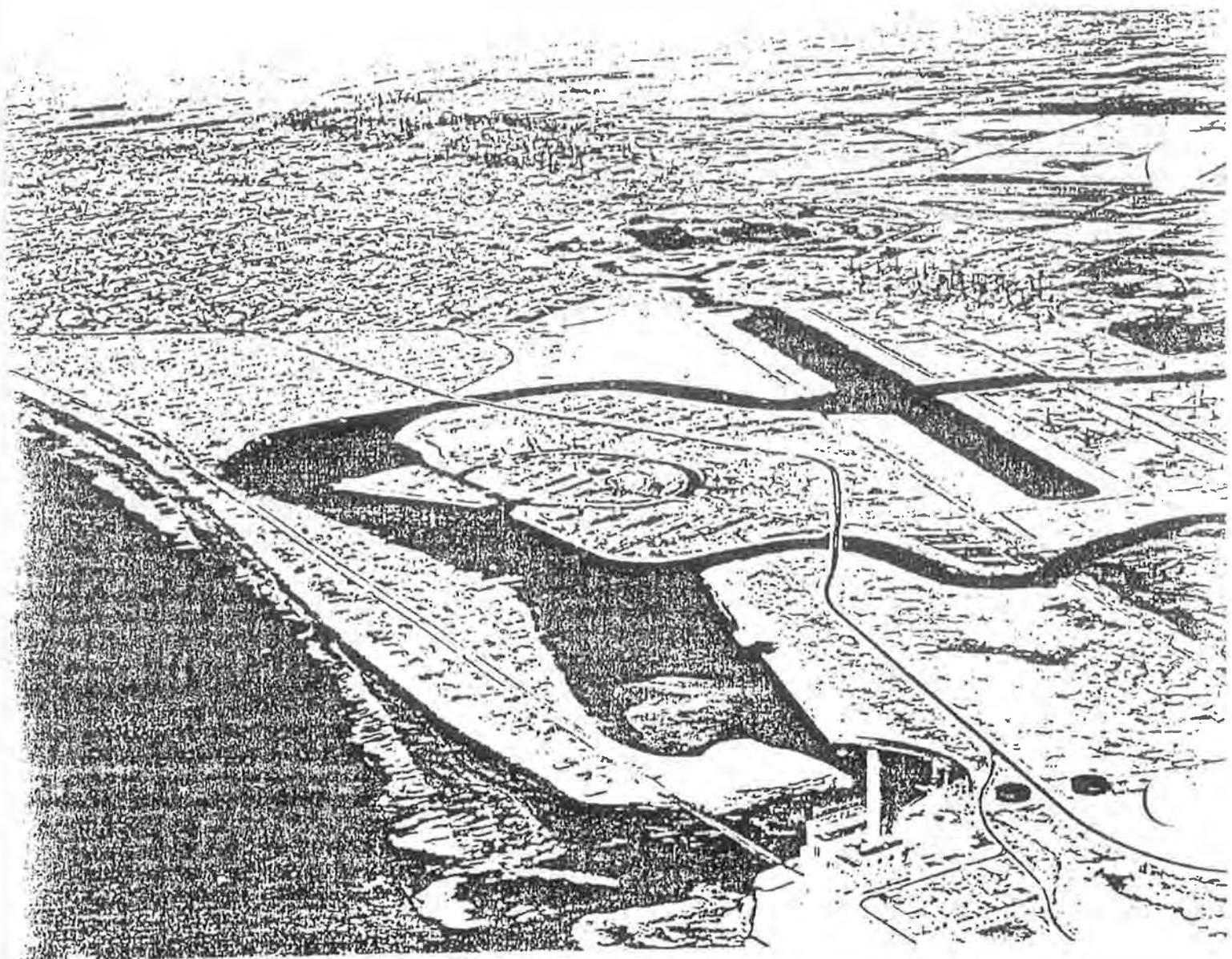
Source: Olympic Games Official Pictorial  
Souvenir Book Long Beach Public Library.



19-186115

## LONG BEACH MARINE STADIUM

Stretching for a mile and a quarter in a straight line, and measuring 600 feet in width, the rowing course of this splendid marine stadium is declared by international experts to be the finest ever provided for the Olympic rowing events. Excellent boat houses, dressing rooms and club facilities were provided for the contestants, while Alamitos Bay, of which the stadium is a part, was available for practice purposes. The City of Long Beach has cooperated with the Organizing Committee by enclosing the entire rowing course with a fence and trees, thus making it the only stadium in the world devoted exclusively to rowing and boating. It will remain, after the Games of the Xth Olympiad, as a splendid addition to the many recreational facilities which Long Beach has provided for its residents and the many tourists who visit it annually.



# Marine Stadium Praised by Visiting Olympic Officials

# TO DEDICATE NEW STADIUM

July 23 Chosen as Date for Fete at Marine Rowing Course. L. E. *Smith*

By the fact that the coming Olympic Games are greater than any ever in which various sections of the international competitions are to be held, Long Beach can feel a pardonable pride in its Olympic Marine Stadium. This was the opinion expressed yesterday by William W. Monahan, graduate manager of the University of California, who will manage the rowing races of the Olympics on the local course August 8 to 13, inclusive. Monahan, in company with several Olympic officials, inspected the stadium and buildings under construction there.

The manager of the rowing races will return to his home in Berkeley a day or two and expects to return to Long Beach with his family about May 15 and remain until after the races. He may establish headquarters at the Chamber of Commerce, temporarily, and then move to one of the buildings, now under construction at the stadium later.

Monahan is a native of Shasta County, Mr. and Mrs. Monahan have a girl, Peggy, 5, and son, William W. Monahan, Jr., 3. He was president of the student body at the University of California, where he attended school from 1919 to 1924, when he was graduated. Mrs. Monahan is a native of California, and graduated from the University of California.

and what he thought of the possibility of bringing the University of California and University of California crews here for a race. He said that would be really possible if either or both the University of Southern California and the University of California at Los Angeles should take up crew racing, as has been rumored recently. The Long Beach course would be the ideal site for the two schools to practice, and equally ideal for conference regattas, in Monahan's opinion. Eastern crews could be induced to compete on the Long Beach course, he added.

Accompanying him were Gwynn Wilson, former manager of the Associated Student Body of U. S. C., and Associate Manager of the Olympic Games; J. P. Mackenzie, in charge of the sale of tickets to the Games, and former manager of student athletic activities at U. S. C.; and William M. Henry, sports technical director of the Olympic Games, and former sports editor of a Los Angeles newspaper.

Henry praised the local stadium course, describing it as the best in the country. There is only one comparable to it in the United States, he said. It is that of the United States Naval Academy at Annapolis, which includes many buildings for motor boat equipment.

The tenth Olympic Games will get under way July 30 and will be concluded on August 14, one day after the last of the rowing events in Long Beach. The races here are scheduled for mornings and afternoons of the first four days and the afternoon of the final day.

Henry expressed the opinion that the United States' supremacy in athletics will be challenged this year as never before, adding that while he is naturally patriotic he will be secretly pleased if the other nations should carry off the bulk of the honors. It would create a

wholesome condition, in his opinion.

Germany and Japan have been engaged for several years in a systematic development of all forms of athletics, according to Henry. As a result of their scientific development of athletes, he said, they have brought many individual performers to the state where they are "flirting" with the records and may be expected to set a new time of distance in any meet.

Each of the visitors were highly gratified at their reception in Long Beach and predicted that the crew races here will result in a new interest in athletics locally and that the splendid local water course, which will permit a greater number of spectators than any other similar course in the country, will give Long Beach national and international advertising of a very favorable nature.

The dedication of the Marine Stadium, in which the Olympic rowing races will be held August 9-13, promises to attract a record crowd. It will be held Saturday, July 23, from 1 to 4:30 P. M., according to Captain Robert Henderson, Second Vice President of the Chamber of Commerce. Congressional candidates and chairman of the committee in charge of the event.

A feature will be the flag-raising and official dedication at 2:30 by Olympic officials, city and Chamber of Commerce representatives.

Dick Loynes, program chairman announced that the event staged on ships when they cross the equator will be presented at the dedication. Father Neptune will emerge from his watery realm to extend greeting. Other traditional figures will be represented.

1 to 2—Exhibition of racing runabouts. Racing 25 miles under auspices of the Long Beach Speed Boat Club.

3—Exhibition race Class A and outboard hydroplanes, fifteen mile under the auspices of Southern California Outboard Association.

2:20—Exhibition hydroplanes riding by two experts.

2:30—Flag raising and official dedication by Olympic and Long Beach city officials.

2:00—Parade and exhibition of various types of rowing shells entered in the Olympic Games. Contestants in native costumes will take part. Description of various types of shells to be made by William "Bill" Monahan.

3:15—Exhibition race between crews from the U. S. Navy.

3:30—Presentation of Father Neptune.

4—Speed tests over one-mile course by Blue Streak piloted by Marty Martin, Sunkist Kid piloted by Loreta Turnbull and Miss California by Dick Loynes.

4:30—Exhibition race, Class outboard hydroplanes, fifteen mile under auspices of the Southern California Outboard Association.

Members of the Dedication Committee who attended the meeting were Burrill S. Mills, R. B. Taplin, David Ray, Arnold, Byron & Thorpe, Otto T. Bayer, Peter Mahlbacher, J. T. Cosh, C. G. Hayne, Ward Smith, W. E. Felstner, Lorr D. Middough, J. Swan, Verne Wickham, Lloyd C. Leedom, J. W. Steels, Dick Loynes, Fred Petry, L. Y. Peck, Edward M. Bryant, Clyde Doyle, Charles H. Hunt and Captain Charles Henderson.

Verne Wickham will announce the event over the newly installed public address system.

Several motion picture stars have been invited to take part in the Neptune stunt, and the event will be covered by various sound news reel organizations.

STATE HISTORICAL RESOURCES COMMISSION  
DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 942896  
SACRAMENTO 94296-0001  
(916) 653-6624  
FAX (916) 653-9824



March 15, 1993

Mr. Larry J. Monteilh, Executive Officer  
Los Angeles County Board of Supervisors  
383 Hall of Administration  
Los Angeles, CA 90030

STATE OF CALIFORNIA—THE RESOURCES AGENCY  
DEPARTMENT OF PARKS AND RECREATION  
**POINT OF HISTORICAL INTEREST**

DO NOT WRITE IN THIS BLOCK  
Reg. No. LAN-056  
Date 2-26-93  
By SJE

County:  
LOS ANGELES

Name  
MARINE STADIUM

Location  
LONG BEACH, CALIFORNIA --- Appian Way/Nieto/Eliot/Boathouse Lane

Historical Significance (Summary Paragraph Only):

THE LONG BEACH MARINE STADIUM IS SIGNIFICANT. IT WAS:  
1. A ROWING VENUE FOR THE XTH OLYMPIAD 1932 GAMES; and  
2. THE FIRST MAN-MADE ROWING COURSE IN THE UNITED STATES.  
The Long Beach Marine Stadium is historically significant because it was the site of the rowing games of the XTH Olympiad (1932 Olympics). It was further selected as the site for the 1968, 1976, and 1984 United States Olympic Rowing Trials and six times selected as an official United States Olympic Training Center to train candidates for the U.S. National and Olympic Rowing Teams. Over the past 60 years it has been used as a training facility for the crews of C.S.U.L.B. and the Long Beach Rowing Association. It was the first home for the crews of U.S.C. Since 1932 it has served as an important recreation site for the people of Long Beach and the surrounding region.  
THIS POINT OF HISTORICAL INTEREST IS NOT A STATE REGISTERED HISTORICAL LANDMARK.

RECOMMENDED

*Laurence B. Goodhue*  
Signature—Chairman, County Board of Supervisors

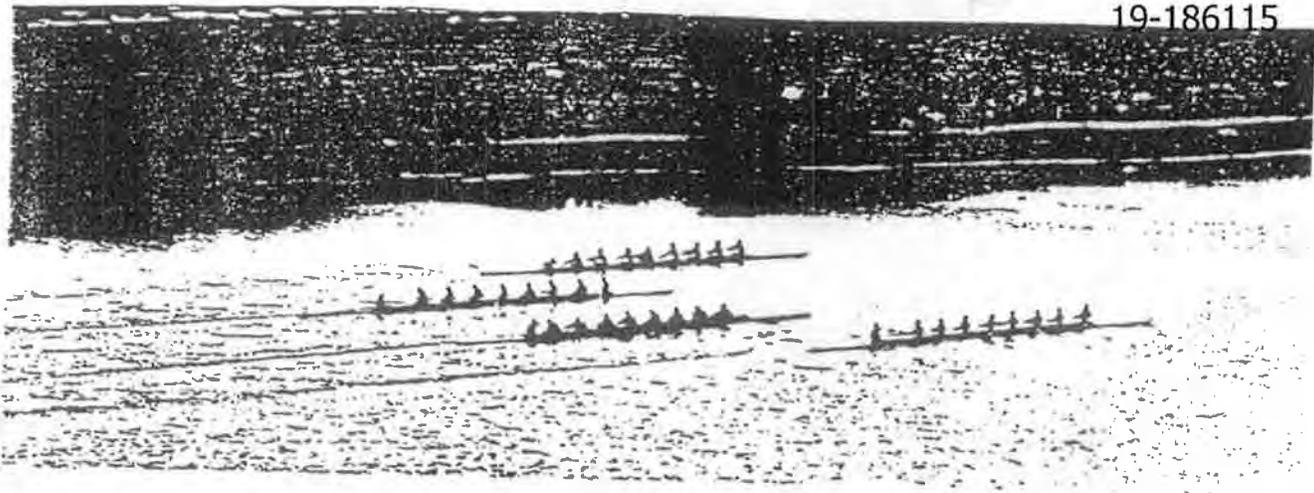
Date NOVEMBER 4, 1992

APPROVED

*John D. Henderson*  
Signature—Chairman, State Historical Resources Commission

Date FEBRUARY 5, 1993

Mr. Laurence B. Goodhue ✓  
2601 East Ocean Blvd.  
Long Beach, CA 90803



## ROWING

**T**HE Rowing events of the Games of the Xth Olympiad were staged on the specially constructed Olympic course at the Marine Stadium in Long Beach. Here a two thousand metre stretch of quiet sea water was lined with sloping sandy shores, on which thousands of spectators could sit and enjoy the competition as the oarsmen swept by, only a few yards distant.

The Rowing contests attracted sufficient entries in each event to provide the finest kind of competition. The width of the course, permitting four crews to race abreast, eliminated unnecessary heats, with the result that the oarsmen entered the Finals at the peak of their form.

With victories in the Double Sculls, the Two Oar with Coxswain, and the Eights, the United States won a major portion of the victories, while Great Britain, with victories in the Two Oar without Coxswain and the Four without Coxswain, took home two championships. The other countries winning were Australia in the Single Sculls and Germany in the Four with Coxswain.

In the Single Sculls event Robert Pearce of Australia, winner of the Olympic title in 1928, defended his championship and won again without apparent difficulty. Powerful in physique and a master of rowing form, Pearce dominated the event and was never headed. The greatest disappointment of the Rowing competition was the illness of Herbert Buhtz, the young German sculler, which prevented him from participating in his favorite event, the Single Sculls.

Although all the competition was spirited, the Eight Oar championship, the climax of the regatta, unquestionably was the high light in popular interest, bringing together as it did the great crews representing Italy, Canada, Great Britain, and the United States. Italy and the United States won their heats by narrow margins in splendid time and were generally considered the favorites to win, although the British and Canadian crews had shown remarkable form.



AUSTRALIAN AND URUGUAYAN OARSMEN  
TALK IT OVER

The prospect of a Titanic contest between these four fine crews attracted an immense throng on the final day and the race in every way came up to expectations. The Italian crew, rowing a very high stroke, took the lead at the start, with the other crews following closely, but as the race progressed the American crew gradually made up distance lost at the start and won by the margin of a few feet.

The finish was so close that only those exactly on the line knew which crew was victorious, and the Canadian and British Eights were so close that no open water at any

time showed between the four shells, the total difference between the four crews being less than a length. It furnished a magnificent climax to a great regatta.

A fine feature of the Rowing competition was the manner in which all contests were held exactly on schedule time.

REVIEW OF COMPETITION

COUNTRIES	SINGLE SCULLS	DOUBLE SCULLS	TWO WITH COX-SWAIN	TWO WITHOUT COX-SWAIN	FOUR WITH COX-SWAIN	FOUR WITHOUT COX-SWAIN	EIGHTS	TOTAL EVENTS IN WHICH EACH COUNTRY PARTICIPATED
AUSTRALIA	1	..	..	..	..	..	..	1
BRAZIL	..	2	3	..	5	..	9	4
CANADA	1	2	..	..	..	4	9	4
FRANCE	..	..	3	2	..	..	..	2
GERMANY	..	2	..	..	5	4	9	4
GREAT BRITAIN	1	..	..	2	..	4	9	4
HOLLAND	..	..	..	2	..	..	..	1
ITALY	..	2	..	..	5	4	9	4
JAPAN	..	..	..	..	5	..	..	2
NEW ZEALAND	..	..	..	2	5	..	..	3
POLAND	..	..	3	2	5	..	..	3
UNITED STATES	1	2	3	2	5	4	9	7
URUGUAY	1	..	..	..	..	..	..	1
<i>Total Participants Each Event</i>	5	10	12	12	35	20	72	..
<i>Total Countries Each Event</i>	5	5	4	6	7	5	8	..

GOVERNING BODY  
FÉDÉRATION INTERNATIONALE DES SOCIÉTÉS D'AVIRON

RICO FIORONI . . . . . *President, Switzerland*  
GASTON MÜLLEGG . . . *General Secretary, Rue Monbijou 51, Berne, Switzerland*

JURY—ROWING



GASTON MÜLLEGG  
SWITZERLAND — SEC'Y.  
TREAS. ADMINISTRATIVE  
COUNCIL, F.I.S.A.

Tom Boles . . . . .	United States
P. P. Bouton . . . . .	France
Henry Penn Burke . . . . .	United States
Roger L. Dequoy . . . . .	France
Keith Enloe . . . . .	United States
J. W. Fisher . . . . .	United States
Major Goodcell . . . . .	United States
William H. Harman . . . . .	United States
Eugene Lenartowicz . . . . .	Poland
Donald Locke . . . . .	United States
A. J. H. Magrath . . . . .	United States
George G. Melloy . . . . .	United States
W. W. Monahan . . . . .	United States
Alberto M. Rossi . . . . .	Italy
Luigi Di Sambuy . . . . .	Italy
Charles Schaefer . . . . .	Switzerland
Robert Sechaud . . . . .	Switzerland
Richard A. Supplee . . . . .	United States
R. C. White . . . . .	United States
František Widimský . . . . .	Czechoslovakia



LUIGI DI SAMBUY  
ITALY — VICE PRES.  
ADMINISTRATIVE COUNCIL,  
F.I.S.A.

*Dates of Competitions*

August 9 to August 13, 1932

*Single Sculls*

Maximum Number of Entrants . . . . . 2 per Nation  
Maximum Number of Competitors . . . . . 1 per Nation

*Team Races*

Maximum Number of Entries **Each Category** . . . . . 1 Crew per Nation  
**with the Number of Substitutes stated below**  
Maximum Number of Competitors **Each Category** . . . . . 1 Crew per Nation

*List of Events*

Pair Oared Boats, 2 Men 1 Oar Each (1 Reserve)  
Double Sculls, 2 Men 2 Oars Each (1 Reserve)  
Two Oared Shell with Coxswain (1 Reserve and the Coxswain)  
Four Oared Shell without Coxswain (2 Reserves)  
Four Oared Shell with Coxswain (2 Reserves and the Coxswain)  
Eight Oared Shell with Coxswain (4 Reserves and the Coxswain)

*Entrants and Participants*

Out of 168 original entries, representing 13 countries, 152 contestants competed in the 7 events.



NEW ZEALAND'S EIGHT OAR CREW AFTER A WORKOUT

## CONTESTANTS

## AUSTRALIA

Single Sculls: Henry Robert Pearce

## BRAZIL

Double Sculls: Henrique Tomassini  
 Adamor Pinho Gonçalves

Two with  
 Coxswain Francisco Carlos Bricio  
 José Ramalho

Four with  
 Coxswain Estevam João Strata  
 Americo Garcia Fernandes  
 João Francisco De Castro  
 Oliverio Kosta Popovitch  
 Durval Bellini Ferreira  
 Lima

Eights:

Osorio Antonio Pereira  
 Amaro Miranda Da Cunha  
 Claudionor Provenzano  
 Joaquim Da Silva Faria  
 Vasco De Carvalho  
 Osorio Antonio Pereira  
 José Rodrigues Mò  
 Antonio Rebello, Jr.  
 José Pichler  
 Fernando Nabuco De Abreu

## CANADA

Single Sculls: Joseph Wright

Double Sculls: Charles Pratt  
 Noel De Mille

Four without  
 Coxswain Fraser McDonald Herman  
 Francis Bernard Courtney

Henry Joseph Pelham  
 Russell Gordon Gammon  
 Albert Taylor

Eights:

Stanley Stanyar  
 George MacDonald  
 Donald Boal  
 William Thoburn  
 Harry Fry  
 Cedric Liddell  
 Earl Eastwood  
 Joseph Harris

## FRANCE

Two with  
 Coxswain Pierre Brunet  
 André Giriat  
 Anselme Brusa

Two without  
 Coxswain Marcel Vandernotte  
 Fernand Vandernotte

## GERMANY

Double Sculls: Herbert Buhtz  
 Gerhard Boetzelen

Four with  
 Coxswain Karl Heinz Neumann  
 Joachim Spremberg  
 Horst Hoeck  
 Hans Eller  
 Walter Meyer

Four without  
 Coxswain Walter Flinsch  
 Hans Maier  
 Karl Aletter  
 Ernst Gaber

## ROWING

Eights : Hans-Wolfgang Heidland  
Heinrich Bender  
Fritz Bauer  
Theodor Hüllinghoff  
Gerhard von Düsterlho  
Hans Maier  
Walter Flinsch  
Ernst Gaber  
Karl Aletter

## GREAT BRITAIN

Single Sculls : Leslie Frank Southwood

Two without Lewis Clive  
Coxswain Hugh Robert Arthur  
Edwards

Four without John C. Babcock  
Coxswain Jack Beresford  
Rowland D. George  
Hugh Robert Arthur  
Edwards

Eights : Thomas Garret Askwith  
David Haig-Thomas  
Lewis Luxton  
Donald Henry Ewan  
McCowen  
Kenneth Martin Payne  
John Maurice Ranking  
Harold Robert Norman  
Rickett  
William Austin Tyers  
Sambell  
Charles John Scott Sergel

## HOLLAND

Two without Godfried Leonard Röell  
Coxswain Pieter Anton Roelofsen

## ITALY

Double Sculls : Mario Moretti  
Orfeo Paroli

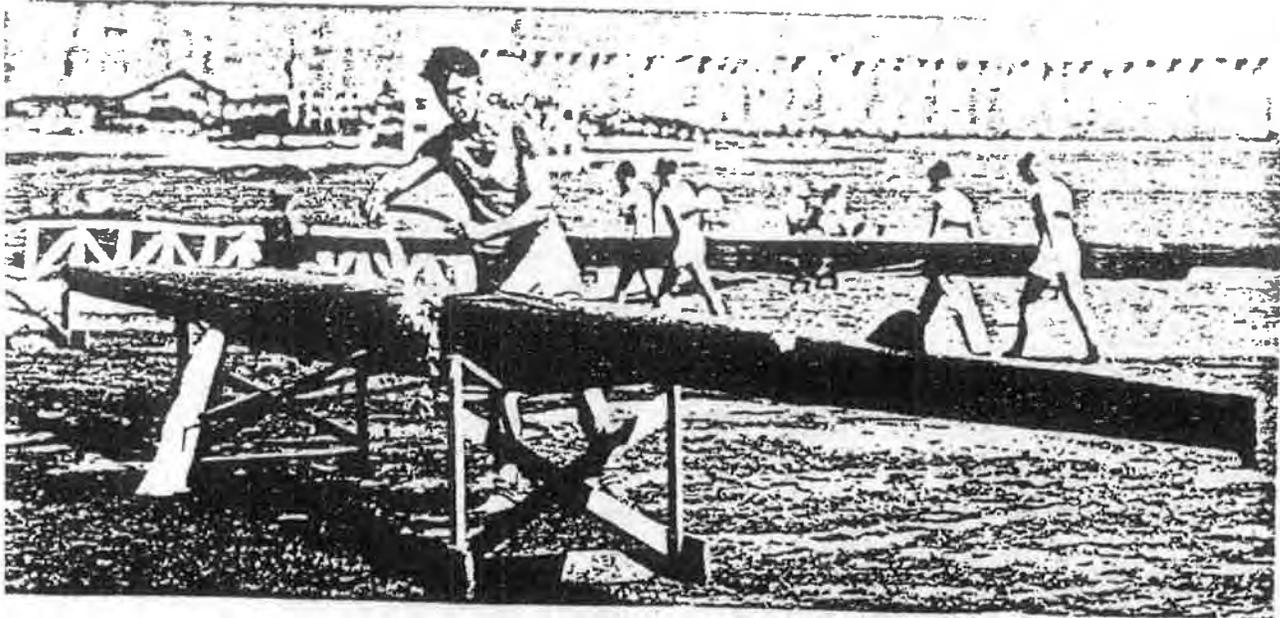
Four with Giovanni Scher  
Coxswain Bruno Vattovaz  
Riccardo Divora  
Giovanni Plazzer  
Bruno Parovel

Four without Antonio Garzoni  
Coxswain Provenzani  
Giliante D'Este  
Antonio Ghiardello  
Francesco Cossu

Eights : Renato Barbieri  
Mario Balleri  
Renato Bracci  
Dino Barsotti  
Roberto Vestrini  
Guglielmo Del Bimbo  
Enrico Garzelli  
Vittorio Cioni  
Cesare Milani

## JAPAN

Four with Daikichi Suzuki  
Coxswain Umetaro Shibata  
Norio Ban  
Rokuro Takahashi  
Shokichi Nanba



WASHING OFF HIS SHELL

## SINGLE SCULLS

### CONTESTANTS

*Australia*

Henry Robert Pearce

*Canada*

Joseph Wright

*Great Britain*

Leslie Frank Southwood

*United States*

William G. Miller

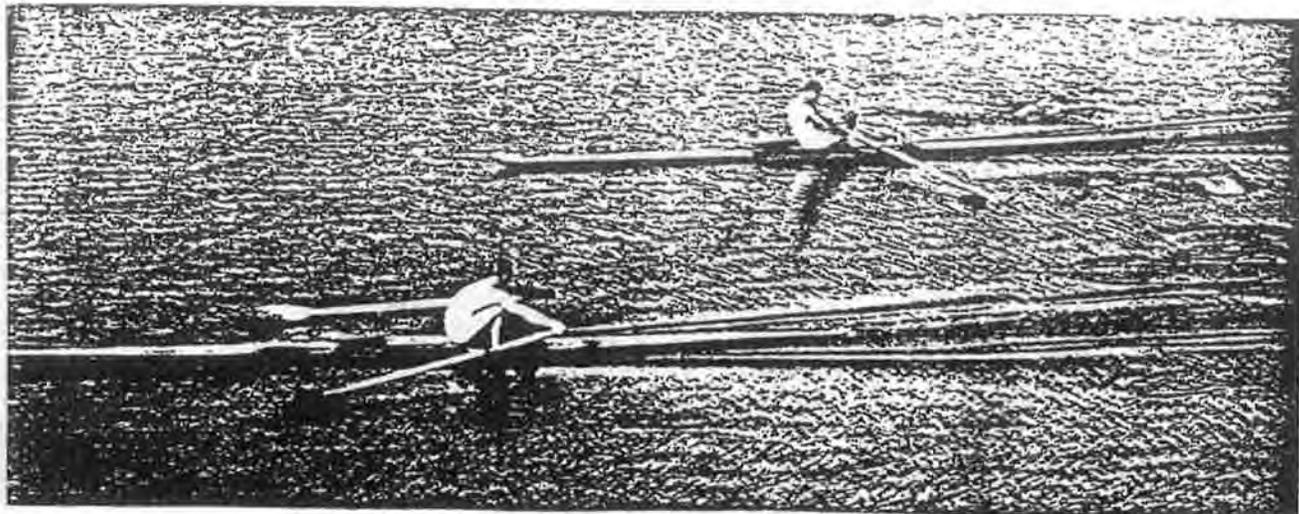
*Uruguay*

Guillermo R. Douglas



CHAMPION OLYMPIQUE  
ROBERT PEARCE, AUSTRALIA, SINGLE SCULLS

<i>Heat</i>	<i>Contestant</i>	<i>Country</i>	<i>Time</i>	<i>Place</i>
			<i>Min. and Sec.</i>	
<i>1st</i>	Henry Robert Pearce	Australia	7:27	1st
	William G. Miller	United States	7:29 1/5	2nd
<i>2nd</i>	Leslie Frank Southwood	Great Britain	7:42 3/5	1st
	Guillermo R. Douglas	Uruguay	7:45	2nd
	Joseph Wright	Canada	8:30 3/5	3rd
<i>Reclassi- fication</i>	William G. Miller	United States	8:05 4/5	1st
	Guillermo R. Douglas	Uruguay	8:20 1/5	2nd
	Joseph Wright	Canada	8:37 4/5	3rd
<i>Final</i>	Henry Robert Pearce	Australia	7:44 2/5	1st
	William G. Miller	United States	7:45 1/5	2nd
	Guillermo R. Douglas	Uruguay	8:13 3/5	3rd
	Leslie Frank Southwood	Great Britain	8:33 3/5	4th



PEARCE, AUSTRALIA, LEADS MILLER, UNITED STATES, ACROSS THE FINISH LINE

XTH OLYMPIAD LOS ANGELES 1932

Eights : Suburo Hara  
 Yoshio Enomoto  
 Shigeo Fujiwara  
 Hidemitsu Tanaka  
 Setsuo Matsuura  
 Taro Nishidono  
 Setsuji Tanaka  
 Keizo Ikeda  
 Toshi Sano

NEW ZEALAND

Two without  
 Coxswain Cyril Alec Stiles  
 Fredrick Houghton  
 Thompson

Four with  
 Coxswain Somers William Cox  
 Noel Francis Pope  
 John Drummond Solomon  
 Charles Edwards Saunders  
 Delmont Edward Gullery

Eights : Bert Magnus Sandos  
 Lawrence Jackson  
 John MacDonald  
 Frederick Houghton  
 Thompson  
 John Drummond Solomon  
 Delmont Edward Gullery  
 George Campbell Cooke  
 Charles Edward Saunders  
 Cyril Alec Stiles

POLAND

Two with  
 Coxswain Jerzy Skolimowski  
 Janusz Slazak

Two without  
 Coxswain Jerzy Braun  
 Henryk Budzinski  
 Jan Mikolajczak

Four with  
 Coxswain Jerzy Skolimowski  
 Stanislaw Urban  
 Jerzy Braun  
 Edward Kobylinski  
 Janusz Slazak

UNITED STATES

Single Sculls : William G. Miller

Double Sculls : Kenneth Myers

W. E. Garrett Gilmore

Two with  
 Coxswain Joseph A. Schauers  
 Charles M. Kieffer

Edward F. Jennings

Two without  
 Coxswain Thomas Clark

Eugene Clark

Four with  
 Coxswain Charles Drueding

Edward Marshall

Harry Grossmiller

Francis English

Thomas P. Mack, Jr.

Four without  
 Coxswain Edgar W. Johnson

Thomas Williams Pierie

George A. Mattson

John McCosker

Eights : Winslow Hall

Harold Tower

Charles Chandler

Burton Jastram

David Dunlap

Duncan Gregg

James Blair

Edwin Salisbury

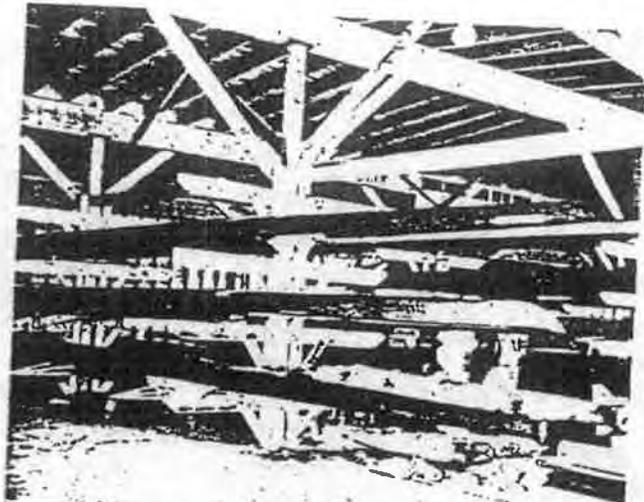
Norris Graham

URUGUAY

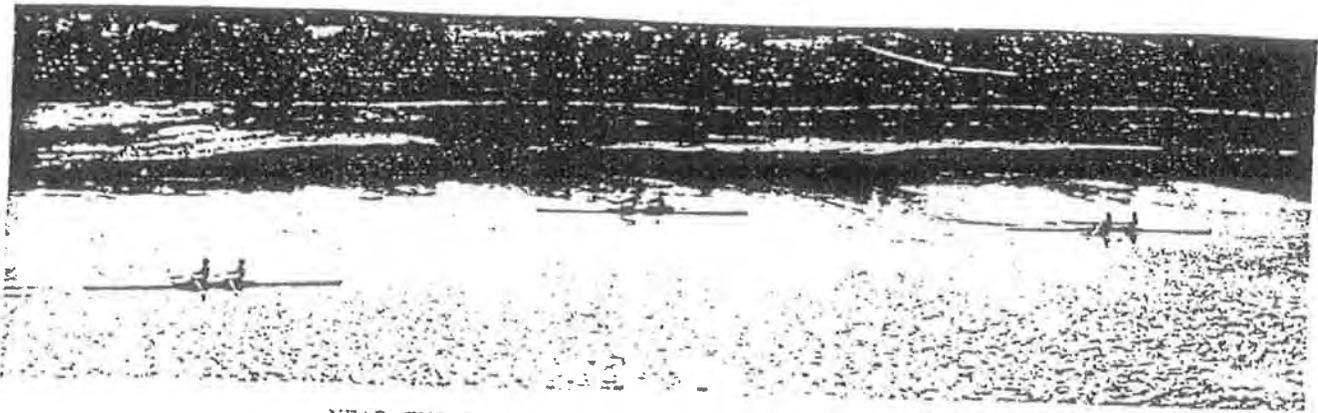
Single Sculls : Guillermo R. Douglas



ITALIAN EIGHT-OAR CREW ENTERS THE BOATHOUSE



VIEW INSIDE BOATHOUSE



NEAR THE FINISH LINE IN THE DOUBLE SCULLS FINAL

<i>Reclassification</i> (Cont'd)	Italy	Orfeo Paroli	Stroke	7:33 1/5	2nd
		Mario Moretti	Bow		
	Brazil	Henrique Tomassini	Stroke	7:57 4/5	3rd
		Adamor Pinho Gonçalves	Bow		
<i>Final</i>	United States	Kenneth Myers	Stroke	7:17 2/5	1st
		W. E. Garrett Gilmore	Bow		
	Germany	Herbert Buhtz	Stroke	7:22 4/5	2nd
		Gerhard Boetzelen	Bow		
	Canada	Charles Pratt	Stroke	7:27 3/5	3rd
		Noel De Mille	Bow		
	Italy	Orfeo Paroli	Stroke	7:49 1/5	4th
		Mario Moretti	Bow		

### TWO WITH COXSWAIN CONTESTANTS

#### *Brazil*

Francisco Carlos Bricio, José Ramalho,  
Estevam João Strata

#### *France*

Pierre Brunet, André Giriat,  
Anselme Brusa

#### *Poland*

Jerzy Skolimowski, Janusz Słazak,  
Jerzy Braun

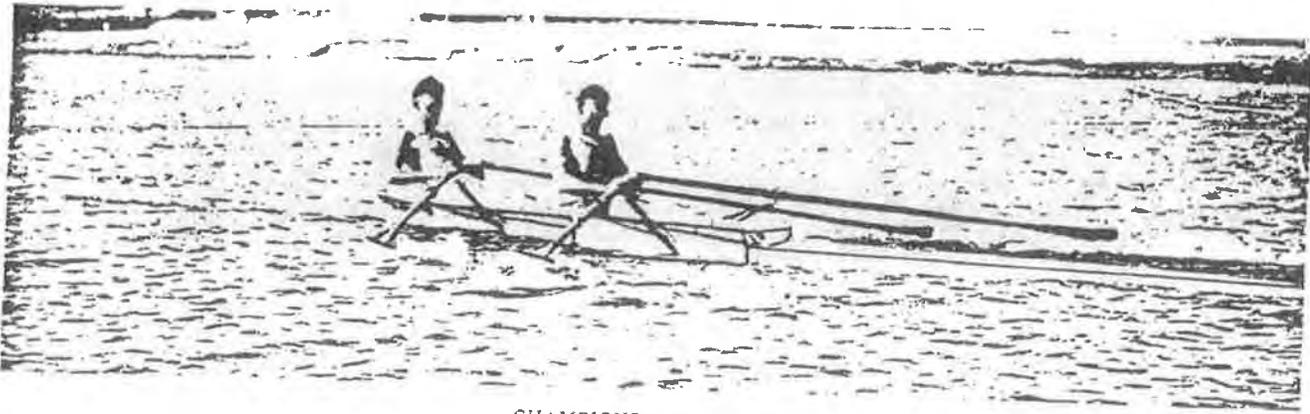
#### *United States*

Joseph A. Schauers, Charles M. Kieffer,  
Edward F. Jennings



#### CHAMPIONS OLYMPIQUES

CREW OF THE UNITED STATES, TWO WITH COXSWAIN — JOSEPH A. SCHAUERS, STROKE, CHARLES M. KIEFFER, BOW,  
EDWARD F. JENNINGS, COXSWAIN



CHAMPIONS OLYMPIQUES  
CREW OF THE UNITED STATES. DOUBLE SCULLS — BOW, KENNETH MYERS, STROKE, W. E. GARRETT GILMORE

DOUBLE SCULLS  
CONTESTANTS

*Brazil*

Henrique Tomassini, Adamor Pinho  
Gonçalves

*Canada*

Charles Pratt, Noel De Mille

*Germany*

Herbert Buhtz, Gerhard Boetzelen

*Italy*

Mario Moretti, Orfeo Paroli

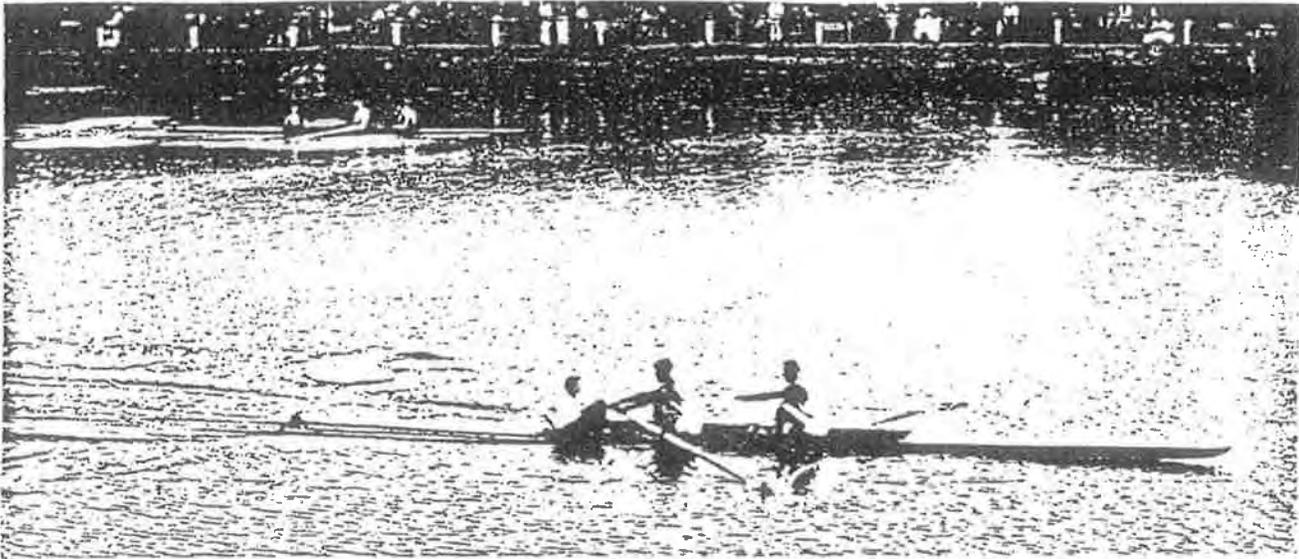
*United States*

Kenneth Myers, W. E. Garrett Gilmore

Heat	Country	Contestants	Position	Time		Place
				Min. and Sec.		
1st	Canada	Charles Pratt	Stroke	7:25		1st
		Noel De Mille	Bow			
	Italy	Orfeo Paroli	Stroke	7:33		2nd
		Mario Moretti	Bow			
	Brazil	Henrique Tomassini	Stroke	7:38 4/5		3rd
		Adamor Pinho Gonçalves	Bow			
2nd	United States	Kenneth Myers	Stroke	7:14 3/5		1st
		W. E. Garrett Gilmore	Bow			
	Germany	Herbert Buhtz	Stroke	7:21 2/5		2nd
		Gerhard Boetzelen	Bow			
Reclassification	Germany	Herbert Buhtz	Stroke	7:28 2/5		1st
		Gerhard Boetzelen	Bow			



ITALY CONGRATULATES THE UNITED STATES ON WINNING



UNITED STATES, TWO WITH COXSWAIN, LEADS POLAND ACROSS THE FINISH LINE

(Only 4 Entries, No Heats Necessary)

<i>Final</i>	<i>Country</i>	<i>Contestants</i>	<i>Position</i>	<i>Time Min. and Sec.</i>	<i>Place</i>
	United States	Joseph A. Schauers Charles M. Kieffer	Stroke Bow	8:25 4/5	1st
	Poland	Edward F. Jennings Jerzy Braun	Coxswain Stroke	8:31 1/5	2nd
	France	Janusz Slazak Jerzy Skolimowski	Bow Coxswain	8:41 1/5	3rd
	Brazil	Anselme Brusa André Giriat Pierre Brunet	Stroke Bow Coxswain	8:53 1/5	4th
		José Ramalho Estevam João Strata Francisco Carlos Bricio	Stroke Bow Coxswain		



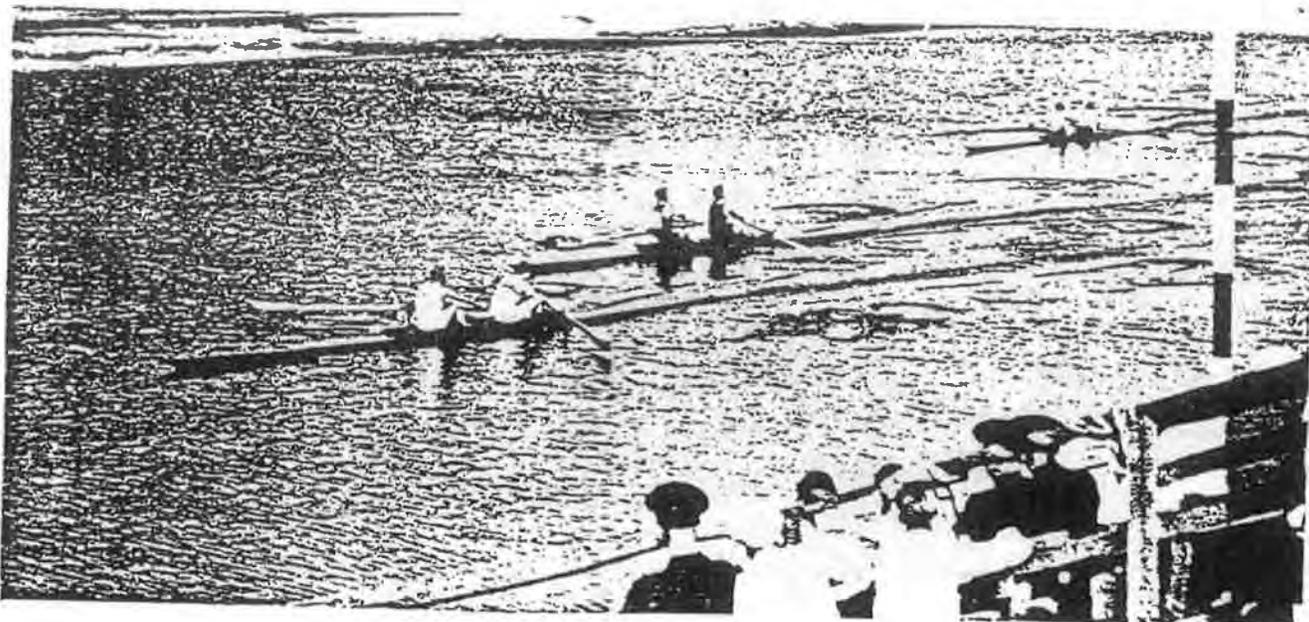
CHAMPIONS OLYMPIQUES

CREW OF GREAT BRITAIN, TWO WITHOUT COXSWAIN — LEWIS CLIVE, STROKE. HUGH R. A. EDWARDS, BOW

**TWO WITHOUT COXSWAIN  
CONTESTANTS**

<p style="text-align: center;"><i>France</i></p> <p>Marcel Vandernotte, Fernand Vandernotte</p> <p style="text-align: center;"><i>Great Britain</i></p> <p>Lewis Clive, Hugh Robert Arthur Edwards</p> <p style="text-align: center;"><i>Holland</i></p> <p>Godfried Leonard Röell, Pieter Anton Roelofsens</p>	<p style="text-align: center;"><i>New Zealand</i></p> <p>Cyril Alec Stiles, Fredrick Houghton Thompson</p> <p style="text-align: center;"><i>Poland</i></p> <p>Henryk Budzinski, Jan Mikołajczak</p> <p style="text-align: center;"><i>United States</i></p> <p>Thomas Clark, Eugene Clark</p>
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<i>Heat</i>	<i>Country</i>	<i>Contestants</i>	<i>Position</i>	<i>Time</i>	<i>Min. and Sec.</i>	<i>Place</i>
<i>1st</i>	Poland	Henryk Budzinski	Stroke	7:53	2 5	1st
		Jan Mikołajczak	Bow			
	France	Fernand Vandernotte	Stroke	7:54	3 5	2nd
<i>2nd</i>	United States	Marcel Vandernotte	Bow			
		Thomas Clark	Stroke	8:03	1 5	3rd
	Great Britain	Eugene Clark	Bow			
		Lewis Clive	Stroke	7:47		1st
	New Zealand	H. R. Arthur Edwards	Bow			
		Cyril Alec Stiles	Stroke	7:50	1/5	2nd
<i>Reclassification</i>	Holland	Fredrick Houghton Thompson	Bow			
		Godfried L. Röell	Stroke	7:51	4, 5	3rd
	Holland	Pieter Anton Roelofsens	Bow			
		Godfried L. Röell	Stroke	8:10		1st
	New Zealand	Pieter Anton Roelofsens	Bow			
		Cyril Alec Stiles	Stroke	8:11	2/5	2nd
	France	Fredrick Houghton Thompson	Bow			
		Fernand Vandernotte	Stroke	8:13		3rd
	United States	Marcel Vandernotte	Bow			
		Thomas Clark	Stroke	8:23		4th
			Eugene Clark	Bow		



GREAT BRITAIN AND NEW ZEALAND, TWO WITHOUT COXSWAIN, LEAD POLAND ACROSS THE LINE

<i>Final</i>	Great Britain	Lewis Clive	Stroke	8:00	1st
		H. R. Arthur Edwards	Bow		
	New Zealand	Cyril Alec Stiles	Stroke	8:02 2 5	2nd
		Fredrick Houghton Thompson	Bow		
	Poland	Henryk Budzinski	Stroke	8:08 1 5	3rd
		Jan Mikołajczak	Bow		
	Holland	Godfried L. Röell	Stroke	8:08 2 5	4th
		Pieter Anton Roelofsen	Bow		

**FOUR WITH COXSWAIN**  
CONTESTANTS

*Brazil*

Americo Garcia Fernandes, João Francisco De Castro, Oliverio Kosta Popovitch, Durval Bellini Ferreira Lima, Osorio Antonio Pereira

*Germany*

Karl Heinz Neumann, Joachim Spremberg, Horst Hoeck, Hans Eller, Walter Meyer

*Italy*

Giovanni Scher, Bruno Vattovaz, Riccardo Divora, Giovanni Plazzer, Bruno Parovel

*Japan*

Daikichi Suzuki, Umetaro Shibata, Norio Ban, Rokuro Takahashi, Shokichi Nanba

*New Zealand*

Somers William Cox, Noel Francis Pope, John Drummond Solomon, Charles Edward Saunders, Delmont Edward Gullery

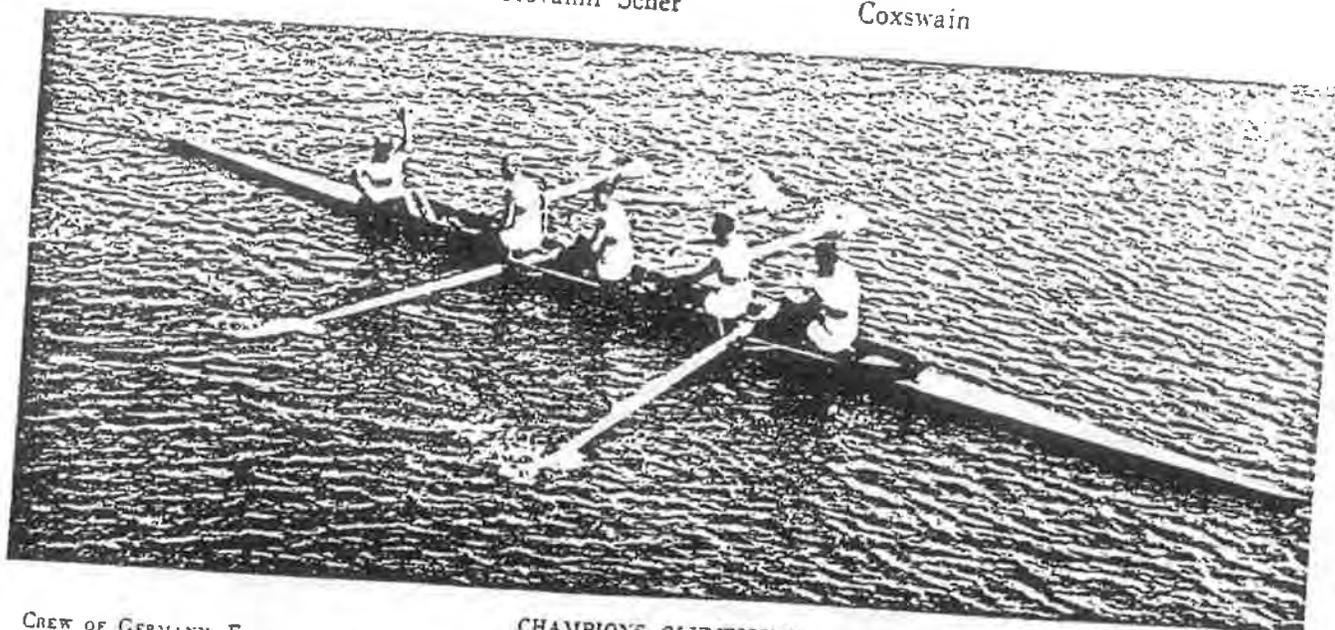
*Poland*

Jerzy Skolimowski, Stanisław Urban, Jerzy Braun, Edward Kobylinski, Janusz Słazak

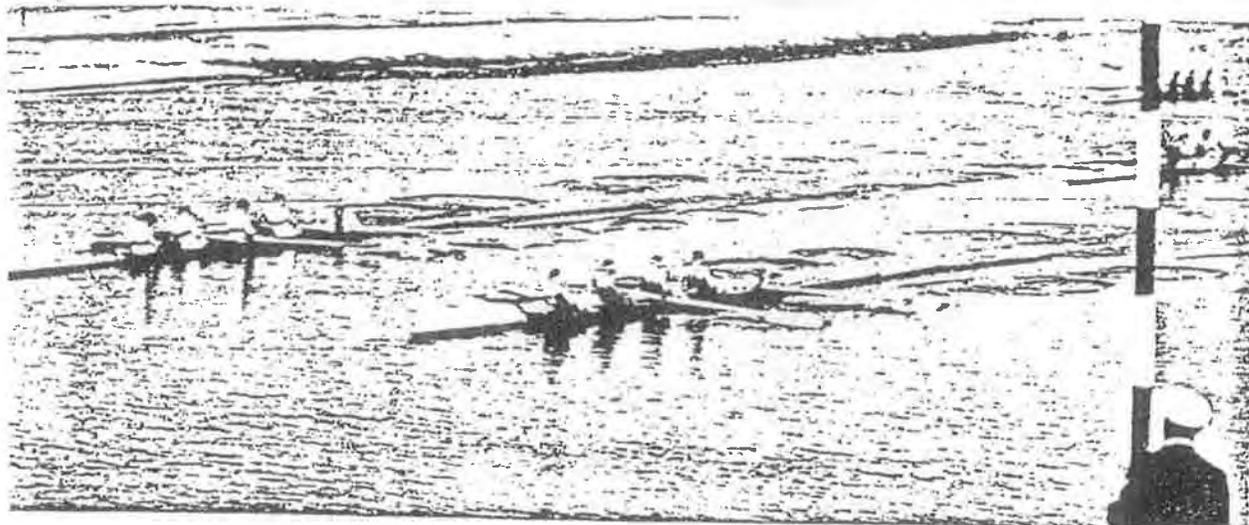
*United States*

Charles Drueding, Edward Marshall, Harry Grossmiller, Francis English, Thomas P. Mack, Jr.

<i>Heat</i>	<i>Country</i>	<i>Contestants</i>	<i>Position</i>	<i>Time</i>		<i>Place</i>
				<i>Min. and Sec.</i>		
1st	Italy	Bruno Vattovaz Giovanni Plazzer Riccardo Divora Bruno Parovel Giovanni Scher	Stroke	7:06		1st
			Bow			
			Coxswain			



CREW OF GERMANY, FOUR WITH COXSWAIN — HANS ELLER (STROKE), HORST HOECK, WALTER MEYER, JOACHIM SPREMBERG (BOW), KARL HEINZ NEUMANN (COXSWAIN) CHAMPIONS OLYMPIQUES



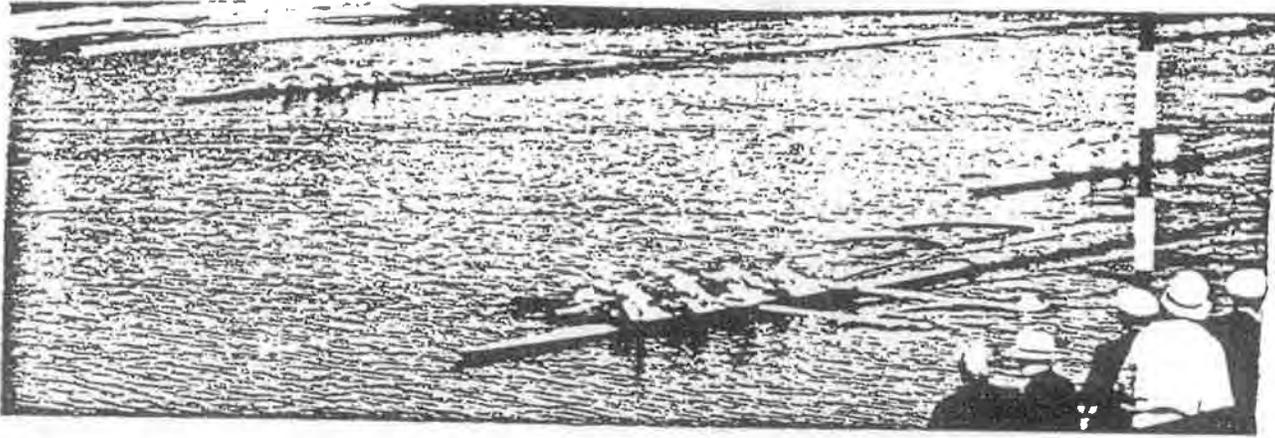
GERMANY AND ITALY, FOUR WITH COXSWAIN, IN A CLOSE FINISH

<i>1st Heat</i> <i>(Cont'd)</i>	Germany	Hans Eller Horst Hoeck Walter Meyer Joachim Spremberg	Stroke	7:09 1/5	2nd
		Karl Heinz Neumann	Bow Coxswain		
	New Zealand	Noel Francis Pope Somers William Cox Charles Edward Saunders John Drummond Solomon	Stroke	7:19 3/5	3rd
		Delmont Edward Gullery	Bow Coxswain		
	Brazil	Osorio Antonio Pereira Oliverio Kosta Popovitch Durval Bellini Ferreira Lima João Francisco De Castro	Stroke	7:29 2/5	4th
		Americo Garcia Fernandes	Bow Coxswain		
<i>2nd</i>	Poland	Jerzy Braun Janusz Słazak Stanisław Urban Edward Kobylinski	Stroke	7:04 1/5	1st
		Jerzy Skolimowski	Bow Coxswain		
	United States	Francis English Harry Grossmiller Charles Drueding Edward Marshall	Stroke	7:06 3/5	2nd
		Thomas P. Mack, Jr.	Bow Coxswain		
	Japan	Rokuro Takahashi Norio Ban Umetaro Shibata Daikichi Suzuki	Stroke	7:16 4/5	3rd
		Shokichi Nanba	Bow		
<i>Reclassi- fication</i>	New Zealand	Noel Francis Pope Somers William Cox Charles Edward Saunders John Drummond Solomon	Stroke	7:38 1/5	1st
		Delmont Edward Gullery	Bow Coxswain		

<i>Reclassification (Cont'd)</i>	Germany	Hans Eller Horst Hoeck Walter Meyer Joachim Spremberg Karl Heinz Neumann	Stroke	7:38 4/5	2nd
	United States	Francis English Harry Grossmiller Charles Drueding Edward Marshall Thomas P. Mack, Jr.	Bow Coxswain Stroke	7:41 3/5	3rd
	Japan	Rokuro Takahashi Norio Ban Umetaro Shibata Daikichi Suzuki Shokichi Nanba	Bow Coxswain Stroke	7:47	4th
<i>Final</i>	Germany	Hans Eller Horst Hoeck Walter Meyer Joachim Spremberg Karl Heinz Neumann	Bow Coxswain Stroke	7:19	1st
	Italy	Bruno Vattovaz Giovanni Plazzer Riccardo Divora Bruno Parovel Giovanni Scher	Bow Coxswain Stroke	7:19 1/5	2nd
	Poland	Jerzy Braun Janusz Slazak Stanislaw Urban Edward Kobylinski Jerzy Skolimowski	Bow Coxswain Stroke	7:26 4/5	3rd
	New Zealand	Noel Francis Pope Somers William Cox Charles Edward Saunders John Drummond Solomon Delmont Edward Gullery	Bow Coxswain Stroke	7:32 3/5	4th



CHAMPIONS OLYMPIQUES  
CREW OF GREAT BRITAIN, FOUR WITHOUT COXSWAIN — JOHN L. BABCOCK (STROKE), HUGH R. A. EDWARDS, JACK BERESFORD,  
ROWLAND D. GEORGE (BOW)



GREAT BRITAIN WINS THE FOUR WITHOUT COXSWAIN

## FOUR WITHOUT COXSWAIN

## CONTESTANTS

*Canada*

Fraser MacDonald Herman, Francis Bernard Courtney, Henry Joseph Pelham, Russell Gordon Gammon

*Germany*

Walter Flinsch, Hans Maier, Karl Aletter, Ernst Gaber

*Great Britain*

John C. Babcock, Jack Beresford, Rowland D. George, Hugh Robert Arthur Edwards

*Italy*

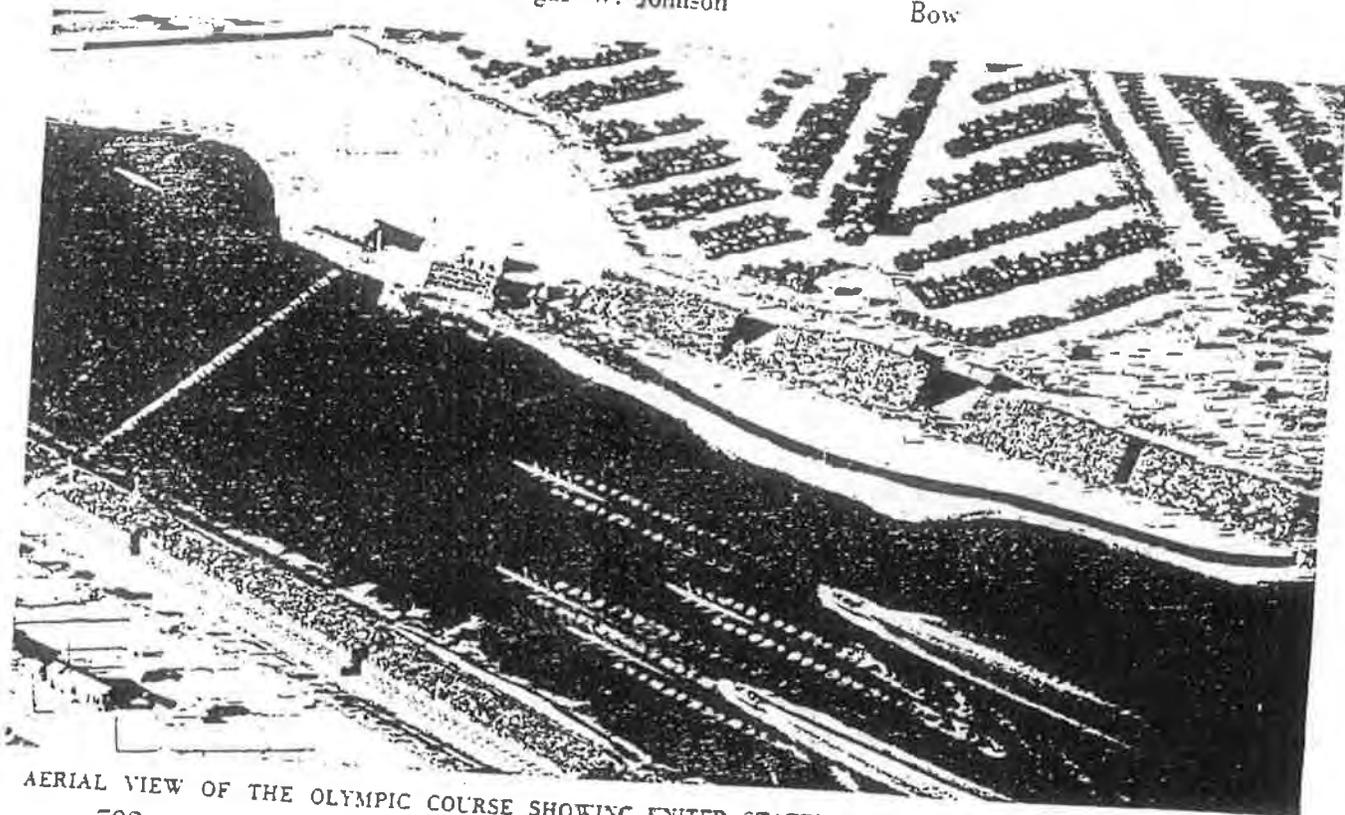
Antonio Garzoni Provenzani, Giliante D'Este, Antonio Ghiardello, Francesco Cossu

*United States*

Edgar W. Johnson, Thomas Williams Pierie, George A. Mattson, John McCosker

Heat	Country	Contestant	Position	Time						
				Min. and Sec.	Place					
1st	Great Britain	John C. Babcock	Stroke	7:13 1/5	1st					
		Hugh Robert Arthur Edwards								
		Jack Beresford								
		Rowland D. George	Bow							
		United States				John McCosker	Stroke	7:19 2/5	2nd	
		George A. Mattson								
Thomas Williams Pierie										
	Germany	Edgar W. Johnson	Bow							
		Karl Aletter				Stroke	7:37 4/5	3rd		
		Ernst Gaber								
Walter Flinsch										
		Hans Maier	Bow							
		2nd				Italy	Antonio Ghiardello	Stroke	7:06 4/5	1st
		Francesco Cossu								
Giliante D'Este										
	Canada	Antonio Garzoni Provensani	Bow							
		Henry Joseph Pelham				Stroke	7:12	2nd		
		Russell Gordon Gammon								
Fraser MacDonald Herman										
		Francis Bernard Courtney	Bow							

<i>Reclassification</i>	Germany	Karl Aletter Ernst Gaber Walter Flinsch Hans Maier	Stroke	7:17 1/5	1st
	United States	John McCosker George A. Mattson Thomas Williams Pierie Edgar W. Johnson	Bow Stroke	7:18 2/5	2nd
	Canada	Henry Joseph Pelham Russell Gordon Gammon Fraser MacDonald Herman Francis Bernard Courtney	Bow Stroke	7:20 1/5	3rd
<i>Final</i>	Great Britain	John C. Babcock Hugh Robert Arthur Edwards Jack Beresford Rowland D. George	Bow Stroke	6:58 1/5	1st
	Germany	Karl Aletter Ernst Gaber Walter Flinsch Hans Maier	Bow Stroke	7:03	2nd
	Italy	Antonio Ghiardello Francesco Cossu Giliante D'Este	Bow Stroke	7:04	3rd
	United States	Antonio Garzoni Provenzani John McCosker George A. Mattson Thomas Williams Pierie Edgar W. Johnson	Bow Stroke	7:14 1/5	4th
			Bow		



AERIAL VIEW OF THE OLYMPIC COURSE SHOWING UNITED STATES EIGHT OAR CREW WINNING A HEAT

## EIGHTS CONTESTANTS

### *Brazil*

Amaro Miranda Da Cunha. Claudionor Provenzano, Joaquim Da Silva Faria. Vasco De Carvalho. Osorio Antonio Pereira. José Rodrigues Mò, Antonio Rebello. Jr., José Pichler, Fernando Nabuco De Abreu

### *Canada*

Albert Taylor, Stanley Stanyar. George MacDonald. Donald Boal. William Thornburn, Harry Fry. Cedric Liddell, Earl Eastwood. Joseph Harris

### *Germany*

Hans-Wolfgang Heidland, Heinrich Bender, Fritz Bauer, Theodor Hüllinghoff. Gerhard von Düsterlho, Hans Maier, Walter Flinsch, Ernst Gaber, Karl Aletter

### *Great Britain*

Thomas Garret Askwith, David Haig-Thomas, Lewis Luxton, Donald Henry Ewan McCowen, Kenneth Martin Payne, John Maurice Ranking. Harold Robert Norman Rickett, William Austin Tyers Sambell, Charles John Scott Sergel

### *Italy*

Renato Barbieri. Mario Balleri. Renato Bracci. Dino Barsotti. Roberto Vestrini. Guglielmo Del Bimbo. Enrico Garzelli. Vittorio Cioni. Cesare Milani

### *Japan*

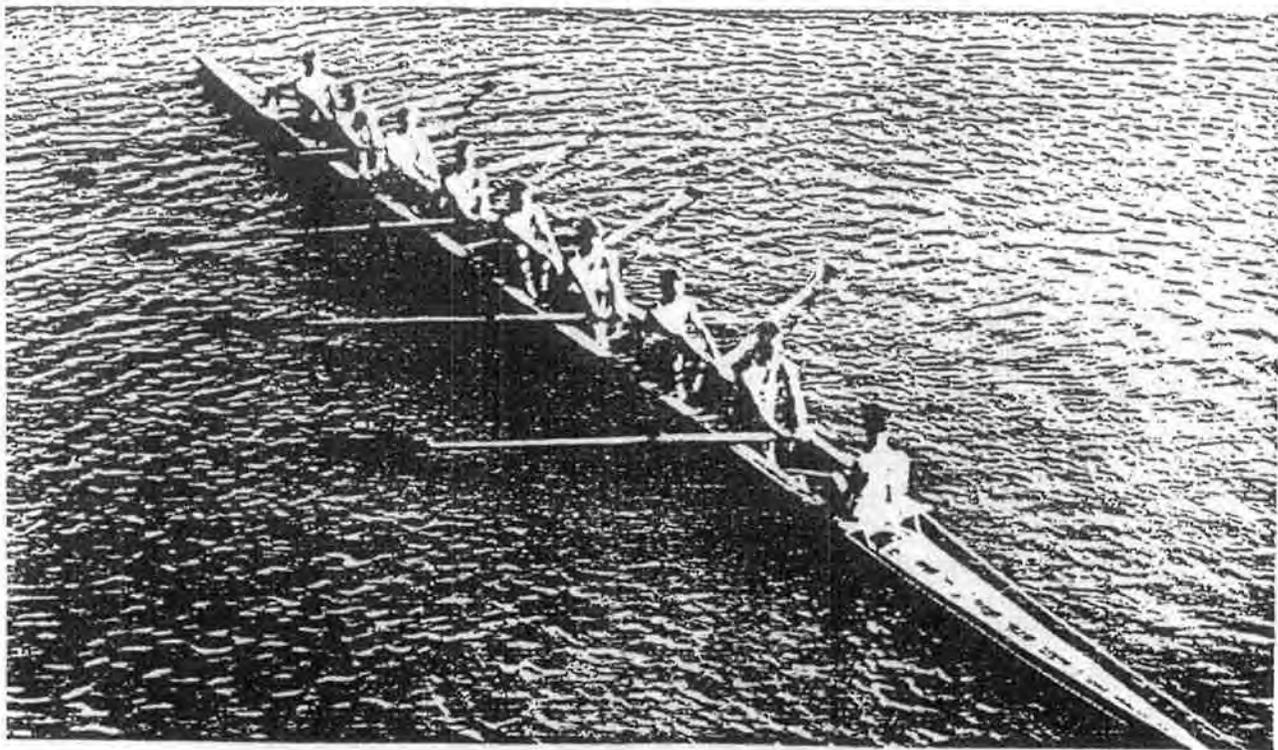
Suburo Hara. Yoshio Enomoto. Shigeo Fujiwara. Hidemitsu Tanaka. Setsuo Matsuura. Taro Nishidono. Setsuji Tanaka. Keizo Ikeda. Toshi Sano

### *New Zealand*

Bert Magnus Sandos. Lawrence Jackson. John MacDonald. Frederick Houghton Thompson. John Drummond Solomon. Delmont Edward Gullery, George Campbell Cooke, Charles Edward Saunders. Cyril Alec Stiles

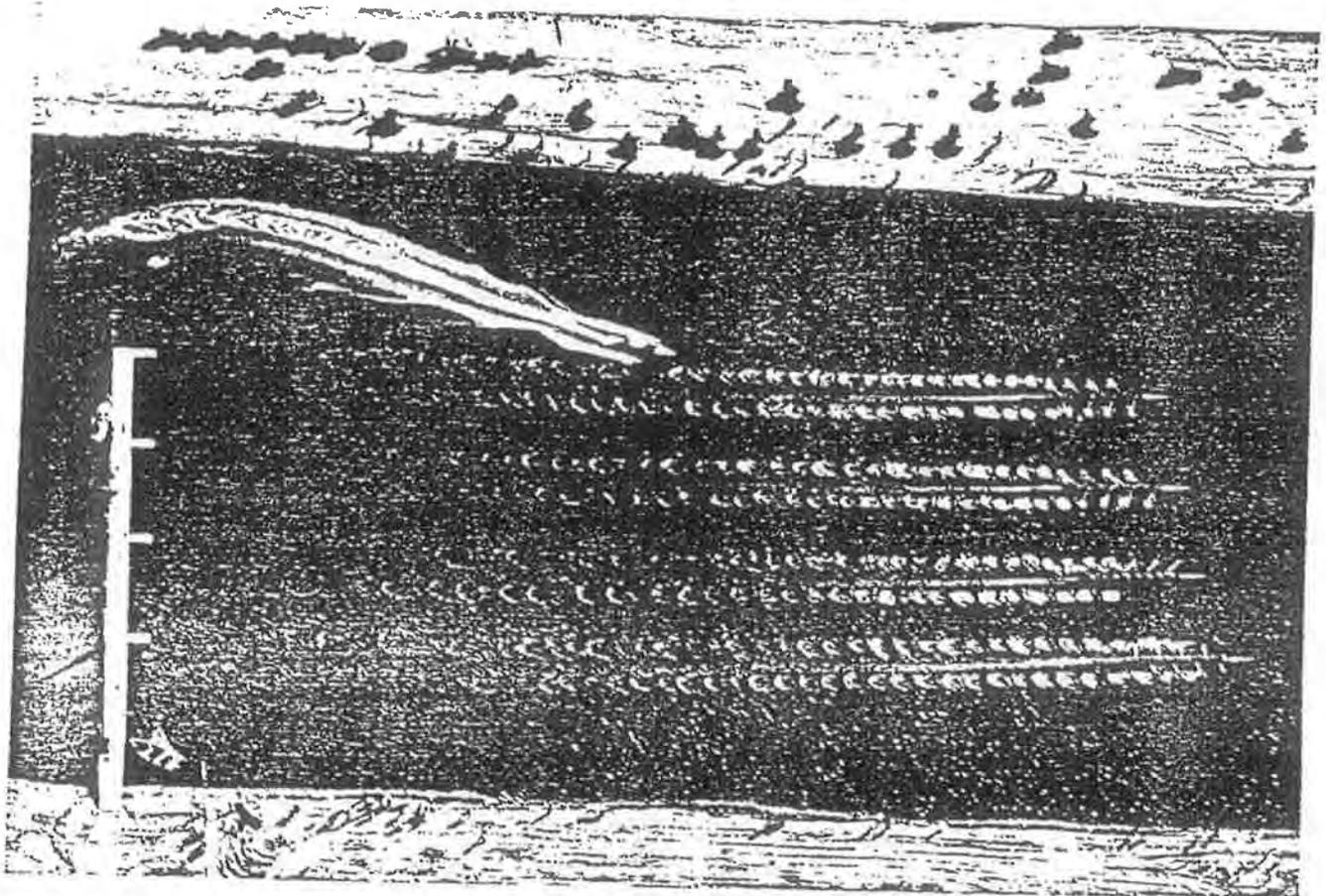
### *United States*

Winslow Hall, Harold Tower. Charles Chandler, Burton Jastram, David Dunlap. Duncan Gregg. James Blair, Edwin Salisbury. Norris Graham



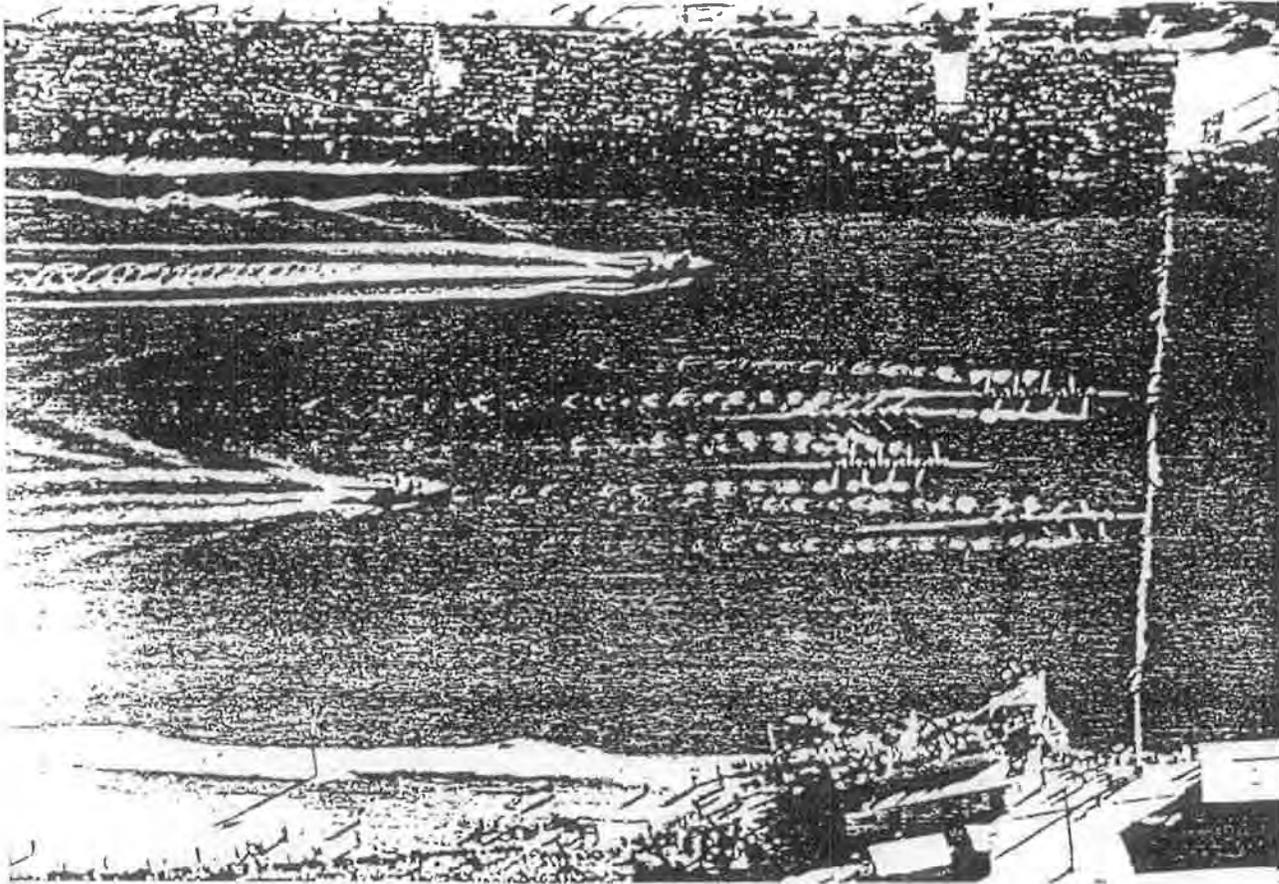
### CHAMPIONS OLYMPIQUES

OF THE UNITED STATES. EIGHTS — EDWIN SALISBURY (STROKE), JAMES BLAIR, DUNCAN GREGG, DAVID DUNLAP, BURTON JASTRAM, CHARLES CHANDLER, HAROLD TOWER, WINSLOW HALL (BOW), NORRIS GRAHAM (COXSWAIN)



START OF THE EIGHT OAR FINAL—ITALY IN LEFT-HAND COURSE, THEN GREAT BRITAIN, CANADA AND UNITED STATES ON THE RIGHT

Heat	Country	Contestants	Stroke	Time	Place
1st	Italy			Min. and Sec.	
	Italy	Vittorio Cioni Mario Balleri Renato Bracci Dino Barsotti Roberto Vestrini Guglielmo Del Bimbo Enrico Garzelli Renato Barbieri Cesare Milani	Stroke	6:28 1/5	1st
	Great Britain	Lewis Luxton Donald Henry Ewan McCowen Harold Robert Norman Rickett Charles John Scott Sergel William Austin Tyers Sambell Thomas Garret Askwith Kenneth Martin Payne David Haig-Thomas John Maurice Ranking	Bow Coxswain Stroke	6:34 2/5	2nd
	Japan	Keizo Ikeda Setsuji Tanaka Taro Nishidono Setsuo Matsuura	Bow Coxswain Stroke	6:43 2/5	3rd



AT THE FINISH LINE—UNITED STATES BEATS ITALY, WITH CANADA AND GREAT BRITAIN  
WITHIN A BOAT'S LENGTH

1st Heat  
(Continued)

		Hidemitsu Tanaka			
		Shigeo Fujiwara			
		Yoshio Enomoto			
		Suburo Hara	Bow		
		Toshi Sano	Coxswain		
Brazil		Vasco De Carvalho	Stroke	6:52 1/5	4th
		Joaquim Da Silva Faria			
		Otorio Antonio Pereira			
		Claudionor Provenzano			
		Antonio Rebello, Jr.			
		Fernando Nabuco De Abreu			
		José Pichler			
		José Rodrigues Mo	Bow		
		Amaro Miranda Da Cunha	Coxswain		
2nd	United States	Edwin Salisbury	Stroke	6:29	1st
		James Blair			
		Duncan Gregg			
		David Dunlap			
		Burton Jastram			
		Charles Chandler			
		Harold Tower			
		Winslow Hall	Bow		
		Norris Graham	Coxswain		

2nd Heat Canada  
(Cont'd)

Earl Eastwood  
Joseph Harris  
Stanley Stanyar  
Harry Fry  
Cedric Liddell  
William Thoburn  
Donald Boal  
Albert Taylor  
George MacDonald

Stroke 6:33 1/5 2nd

Germany

Karl Aletter  
Ernst Gaber  
Theodor Hüllinghoff  
Heinrich Bender  
Hans-Wolfgang Weidland  
Gerhard Von Düsterho  
Walter Flinsch  
Hans Maier  
Fritz Bauer

Bow  
Coxswain  
Stroke 6:36 4/5 3rd

New Zealand

George Campbell Cooke  
Bert Magnus Sandos  
Cyril Aler Stiles  
John MacDonald  
Lawrence Jackson  
Frederick Houghton Thompson  
Charles Edward Saunders  
John Drummond Solomon  
Delmont Edward Gullery

Bow  
Coxswain  
Stroke 6:38 1/5 4th

*Reclassification*

1st Great Britain

Lewis Luxton  
Donald Henry Ewan McCowen  
Harold Robert Norman Rickett  
Charles John Scott Sergel  
William Austin Tyers Sambell  
Thomas Garret Askwith  
Kenneth Martin Payne  
David Haig-Thomas  
John Maurice Ranking

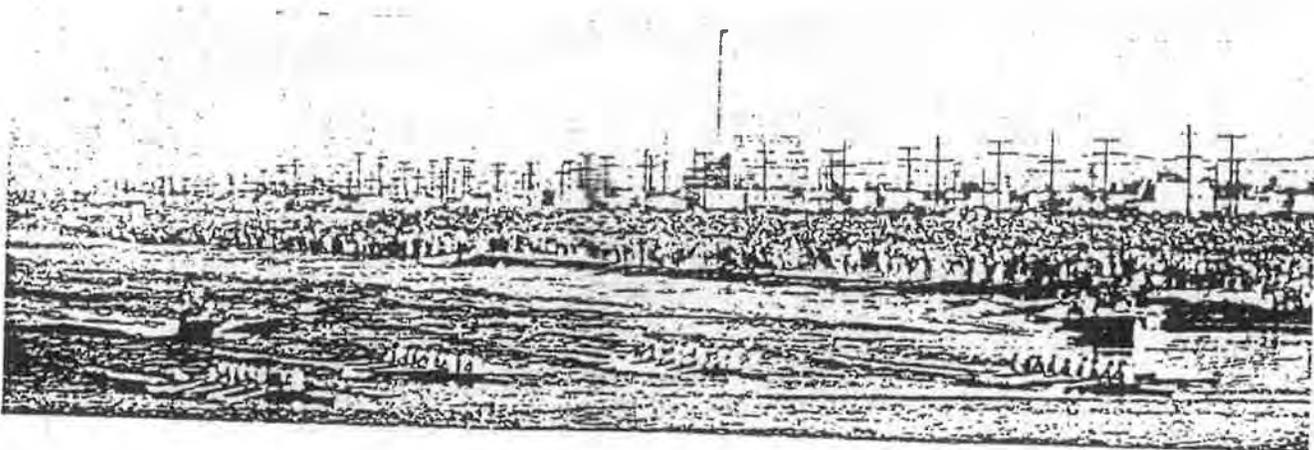
Stroke 6:49 1st

Bow  
Coxswain



TWO-THIRDS OF THE WAY DOWN THE COURSE IN THE EIGHT-OAR FINAL

	New Zealand	George Campbell Cooke Beit Magnus Sandos Cyril Alec Stiles John MacDonald Lawrence Jackson Frederick Houghton Thompson Charles Edward Saunders John Drummond Solomon Delmont Edward Gullery	Stroke       Bow Coxswain	6:52 1/5	2nd
	Note: Brazil withdrew from competition.				
2nd	Canada	Earl Eastwood Joseph Harris Stanley Stanyar Harry Fry Cedric Liddell William Thoburn Donald Boal Albert Taylor George MacDonald	Stroke       Bow Coxswain	7:03 1/5	1st
	Germany	Karl Aelter Ernst Gaber Theodor Hüllinghoff Heinrich Bender Hans-Wolfgang Heidland Gerhard von Düsterlho Walter Finsch Hans Maier Fritz Bauer	Stroke       Bow Coxswain	7:10 3/5	2nd
	Japan	Keizo Ikeda Setsuji Tanaka Taro Nishidono Setsuo Masuura Hidemitsu Tanaka Shigeo Fujiwara Yoshio Enomoto Suburo Hara Toshi Sano	Stroke       Bow Coxswain	7:22 3/5	3rd



NEARING THE FINISH LINE IN THE EIGHT-OAR FINAL

Final	United States	Edwin Salisbury	Stroke	6:37 3 5	1st
		James Blair			
		Duncan Gregg			
		David Dunlap			
		Burton Jastram			
		Charles Chandler			
		Harold Tower			
		Winslow Hall			
		Norris Graham			
Italy	Bow Coxswain	Vittorio Cioni	Stroke	6:37 4 5	2nd
		Mario Balleri			
		Renato Bracci			
		Dino Barsotti			
		Roberto Vestrini			
		Guglielmo Del Bimbo			
		Enrico Garzelli			
		Renato Barbieri			
		Cesare Milani			
Canada	Bow Coxswain	Earl Eastwood	Stroke	6:40 2 5	3rd
		Joseph Harris			
		Stanley Stanyar			
		Harry Fry			
		Cedric Liddell			
		William Thoburn			
		Donald Boal			
		Albert Taylor			
		George MacDonald			
Great Britain	Bow Coxswain	Lewis Luxton	Stroke	6:40 4 5	4th
		Donald Henry Ewan McCowen			
		Harold Robert Norman Rickett			
		Charles John Scott Sergel			
		William Austin Tyers Sambell			
		Thomas Garret Askwith			
		Kenneth Martin Payne			
		David Haig-Thomas			
		John Maurice Ranking			



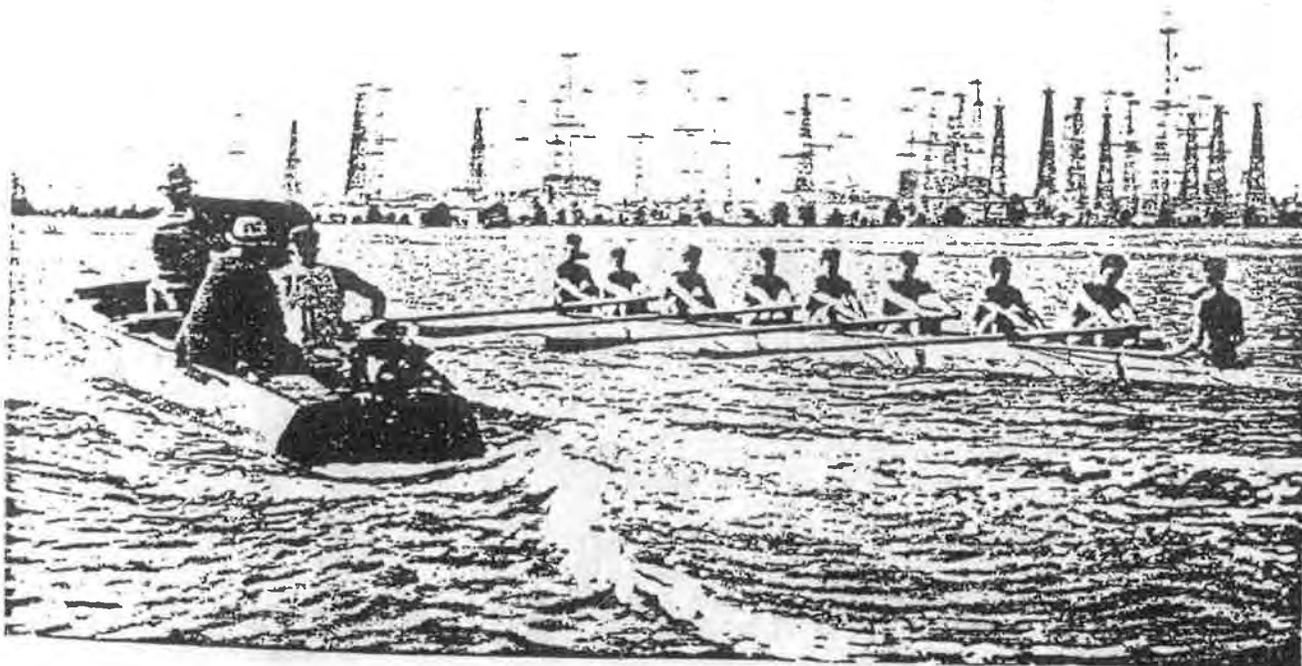
THE WINNERS CELEBRATE BY GIVING THEIR COXSWAIN A DUCKING

## TRAINING ARRANGEMENTS

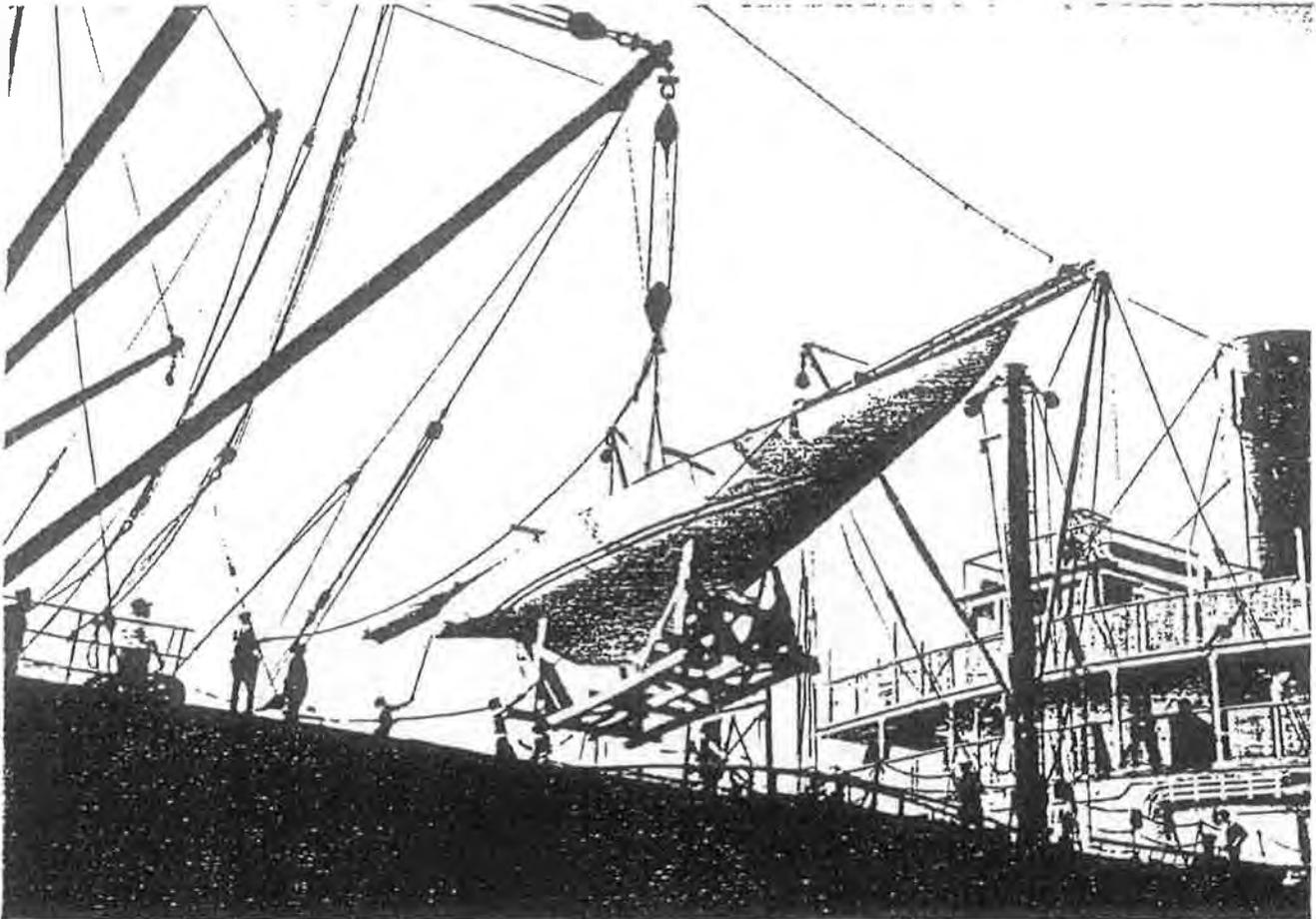
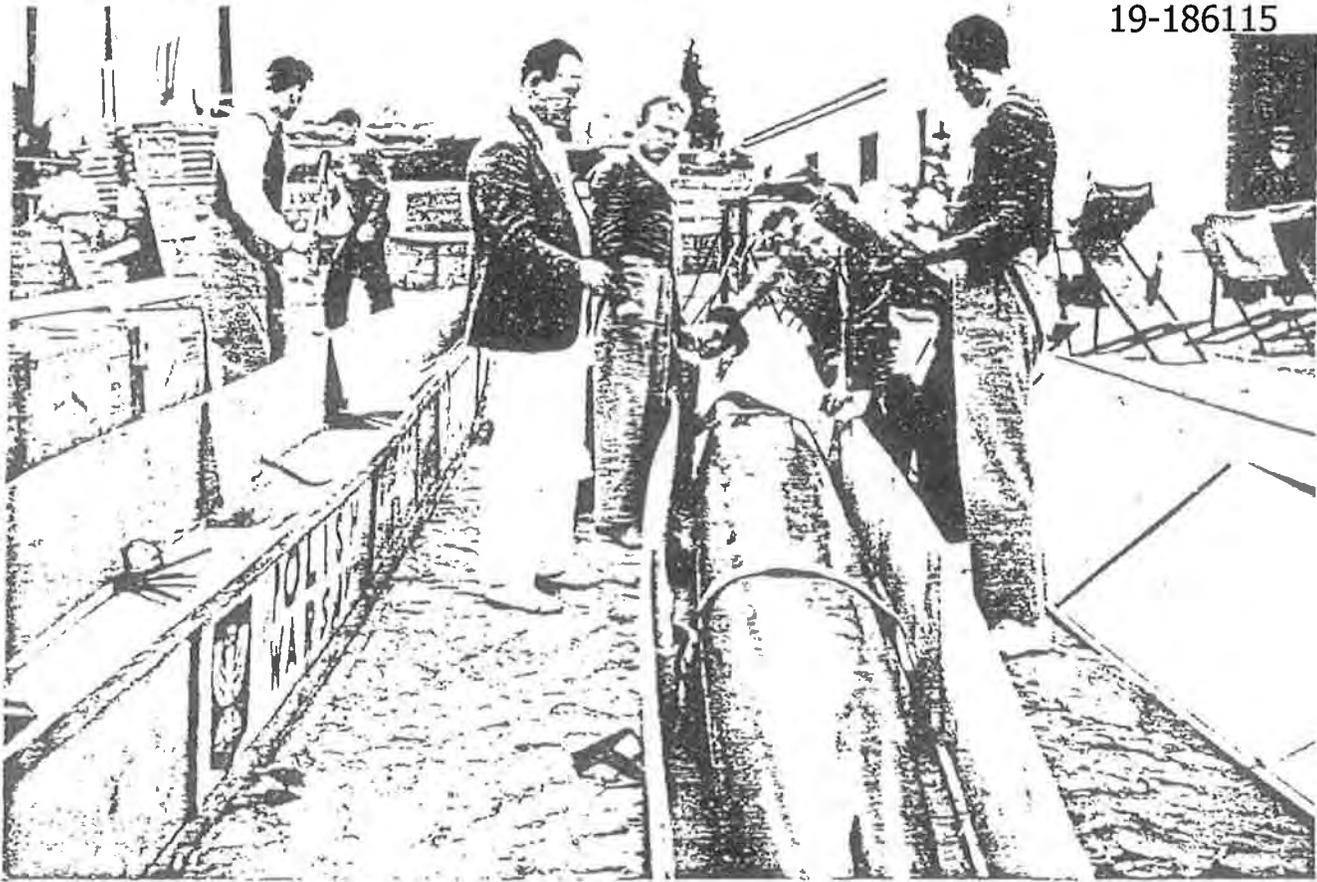
*Cycling:* The only board Cycling track in Southern California available to the Committee was the special track constructed in the Rose Bowl, Pasadena. Upon completion, the Cycling contestants were permitted to use the Rose Bowl track at all times for training purposes.

As each Cycling team arrived in Los Angeles, arrangements were made to transport the team in a special motor coach to the starting point of the road Cycling race, approximately forty-five miles from Los Angeles. An official accompanied the team for the full length of the course, pointing out the dangerous crossings and other hazards. In this manner each team was enabled to familiarize itself with conditions. Many of the contestants rode the course daily but some of them trained on the concrete highways in the vicinity of the Olympic Village.

*Equestrian:* Organized training for the Olympic Equestrian events was undesirable as well as impossible. Training over the actual Cross Country course was prohibited by the regulations, and the same was true of the *Prix des Nations* Jumping course. Training facilities made available to Equestrian contestants at the Riviera Country Club consisted of adequate level turf for training of the



ON THE ROWING COURSE



EQUIPMENT BECAME PRICELESS AFTER THE LONG JOURNEY  
TOO LATE TO BE REPLACED, IT WAS CAREFULLY UNPACKED AND PUT IN ORDER



Dressage horses, a sample course of standard Jumping obstacles, and a certain area of flat country and mountain trails similar to those to be utilized in the actual Cross Country competition. These were available to all contestants and use was made of them without pre-arranged schedule. The riders co-operated in a fine spirit of good sportsmanship. All the facilities

were located in the immediate vicinity of the Riviera Country Club, headquarters for the Equestrian events, where practically all the Equestrian teams were housed.

*Fencing:* Official specifications for the Fencing competition called for strips of cork carpet fifty metres in length. The only strips of this length available were the four in the Fencing Stadium. Absence of other strips of this length led to the fear that training facilities in this sport might prove to be inadequate.

However, the co-operation of the various teams in adjusting their training schedules to the convenience of all concerned, solved the training problem satisfactorily through the use of the Fencing Stadium and the large gymnasium at the University of Southern California where shorter strips suited for practice were laid down.

*Field Hockey:* With only a few teams entered in the Olympic Field



## POINT OF HISTORICAL INTEREST

County <b>LOS ANGELES</b>	Name <b>MARINE STADIUM</b>
------------------------------	-------------------------------

Location  
**LONG BEACH, CALIFORNIA — Appian Way/Nieto/Eliot/Boathouse Lane**

## Historical Significance (Summary Paragraph Only):

**THE LONG BEACH MARINE STADIUM IS SIGNIFICANT. IT WAS:**

**1. A ROWING VENUE FOR THE XTH OLYMPIAD 1932 GAMES; and**

**2. THE FIRST MAN-MADE ROWING COURSE IN THE UNITED STATES.**

The Long Beach Marine Stadium is historically significant because it was the site of the rowing games of the XTH Olympiad (1932 Olympics). It was further selected as the site for the 1968, 1976, and 1984 United States Olympic Rowing Trials and six times selected as an official United States Olympic Training Center to train candidates for the U.S. National and Olympic Rowing Teams.

Over the past 60 years it has been used as a training facility for the crews of C.S.U.L.B. and the Long Beach Rowing Association. It was the first home for the crews of U.S.C. Since 1932 it has served as an important recreational site for the people of Long Beach and the surrounding region.

THIS POINT OF HISTORICAL INTEREST IS NOT A STATE REGISTERED HISTORICAL LANDMARK.

RECOMMENDED

*Keene Bana*  
Signature—Chairman, County Board of Supervisors

Date November 4, 1992

APPROVED

*Jim O'Henderson*  
Signature—Chairman, State Historical Resources Commission

Date FEBRUARY 5, 1993



## HISTORICAL LANDMARKS and RECORDS COMMISSION

383 Hall of Administration • 500 W. Temple Street • Los Angeles, CA 90012 • 974-1431

MEMBERS

David G. Cameron  
E. Michael Diaz  
Mary R. Merrill  
Louis Skelton  
Ivy Sun

October 8, 1992

Honorable Board of Supervisors  
383 Hall of Administration  
500 West Temple Street  
Los Angeles, CA 90012

Dear Supervisors:

REGISTRATION OF THE LONG BEACH MARINE  
STADIUM (4TH SUPERVISORIAL DISTRICT)  
AS A CALIFORNIA STATE POINT OF HISTORICAL  
INTEREST

At its regular meeting, the Los Angeles County Historical Landmarks and Records Commission voted to request that your Board recommend to the State Historical Resources Commission the registration of the Long Beach Marine Stadium as a California State Point of Historical Interest. The Commission has determined that the site meets the established criteria set forth in its ordinance and is appropriate for registration as a Point of Historical Interest.

The site of the Long Beach Marine Stadium is historically significant because it was the site of the rowing games for the 1932 Olympics. It was further selected as the site for the 1968, 1976 and 1984 United States Olympic Rowing Trials and six times selected as an official United States Olympic Training Center to train candidates for the U.S. National and Olympic Rowing Teams.

Over the past 60 years it has been used as a training facility for the crews of California State University at Long Beach and the Long Beach Rowing Association. It was the first home for the crews of the University of Southern California. Since 1932 it has served as an important recreational site for the people of Long Beach and the surrounding region.

Board of Supervisors

October 8, 1992

Page 2

THE LOS ANGELES COUNTY HISTORICAL LANDMARKS AND RECORDS COMMISSION  
THEREFORE REQUESTS THAT YOUR HONORABLE BOARD:

1. Approve the application and recommend the registration of the Long Beach Marine Stadium as a California State Point of Historical Interest;
2. Instruct the Chairman of the Board of Supervisors to sign the application; and
3. Instruct the Executive Officer of the Board to forward the application to the State Historical Resources Commission with an approved copy of this Board letter.

Very truly yours,

*David G. Cameron*  
w.c.

DAVID G. CAMERON  
Chairperson

DCG:WP:lm

Enclosure

L:Point4

HISTORICAL LANDMARKS and RECORDS COMMISSION

383 Hall of Administration • 500 W. Temple Street • Los Angeles, CA 90012 • 974-1431

MEMBERS

MINUTESDavid G. Cameron  
E. Michael Diaz  
Mary R. Merrill  
Louis Skelton  
Ivy Sun

The regular meeting of the Los Angeles County Historical Landmarks and Records Commission was held on June 19, 1992 at 9:30 a.m. in Room 739 Hall of Administration, 500 West Temple Street, Los Angeles.

The meeting was called to order at 9:41 a.m.

The names of those in attendance are listed on the last page.

APPROVE MINUTES OF MARCH 9 AND APRIL 14, 1992

By unanimous consent, the Commission requested staff to make several changes to the March 9 and April 14, 1992 minutes, including Commissioners' comments at the March 9 meeting on the absence of the Bob's Big Boy owner from that meeting, and to resubmit them for approval at the next Commission meeting.

REVIEW AND RECOMMEND BOARD OF SUPERVISORS' ACTION ON POINT OF HISTORICAL INTEREST APPLICATION:Long Beach Marine Stadium

The Commission reviewed a Point of Historical Interest application for the Long Beach Marine Stadium. The applicant Larry Goodhue spoke on its historical significance, noting its use in Olympic rowing competitions.

Following review, the Commission requested the applicant to make the following changes and additions to the application:

- include copy of 1923 deed from City of Long Beach.
- include actions and/or documentation that demonstrates the positions of the Long Beach City Council, the Long Beach Cultural Heritage Commission and the Long Beach Marine Advisory Commission towards the application.
- submit a historic map of the Marine Stadium, with a second overlay showing changes that have occurred.
- proofread "Continuum of support" page for spelling and grammatical errors.
- cite dates that newspaper articles are found.
- index and label exhibits.
- revise the geographical survey map so that it shows the

Historical Landmarks and  
Records Commission  
Minutes of June 19, 1992  
Page 3

The Commission agreed to continue discussion on revising its information sheet until the next meeting.

#### DISCUSSION ON TASK FORCE ON HISTORICAL RECORDS PRESERVATION

Staff spoke on the previous work of the Task Force on Historical Record Preservation to establish a historical records preservation program in L.A. County.

Chairman Cameron requested staff to arrange for a Chief Administrative Office representative to attend the next meeting to speak on the archives project.

#### DISCUSSION ON WILLIAM DAVIES BUILDING LOCATED AT FARNSWORTH PARK IN ALTADENA

Mr. Tim Gregory, Altadena Heritage, said that potential alterations to the William Davies Building's roof may affect a National Register application being prepared for that building. He spoke on community interest in preserving it in its present state as well as the history of its usage and its architectural significance.

Commissioner Skelton suggested that Mr. Gregory investigate the possibility of obtaining private support to help maintain the building.

The Commission suggested that Mr. Gregory contact the Parks and Recreation Department to address the issue of preserving the building.

Mr. Gregory also requested that the Commission review the Report On The Architectural And Historic Resources Survey Of Altadena, California, at the next Commission meeting.

#### PUBLIC COMMENTS

Mr. Gregory spoke of his meeting with Supervisor Mike Antonovich and members of Altadena Heritage in which they discussed the development of a special historical preservation ordinance for Altadena.

Chairperson Cameron announced that the City of La Mirada is organizing a meeting on the evening of Wednesday, July 15, 1992 for historical commissions in L.A. County.

#### ADJOURNMENT

There being no further business before the Commission, the meeting was adjourned at 11:12 a.m.

CA.PT.HIST.INTEREST LOG 11/20/92

CO.: LOS ANGELES

Serial Number: 19- 84 Date last changed: 11/20/92 Assigned to: ML
Appl. Name: MARINE STADIUM Category:

\*\*\*\*\* Info from HIST.PROP.INV. \*\*\*\*\*
There is 1 computerized Hist.Prop. record for this application:
Property Number: 79355 Inventory Number:

MARINE STADIUM

Address: 0 County: LAN
LONG BEACH 0 X-Street: APPIAN WAY ET AL
Vicinity:
Parcel #:
#ofProps:
Owner Type: S Pres.Use: P
Other Recognition: M CHL Numb:
Dates of Construction: 1932 -
Architect: Builder:

Historic Attributes:

Eth:

Previous Determinations on this Property:

Table with 5 columns: Program, Prog.Ref.Number, Evl Crit, Evl-date, Evaluator. Row 1: ST.PT.INT. 19- 84, 7J, 11/10/92, MARYLN LORTIE

\*\*\*\*\* Application Prepared By: \*\*\*\*\*
Name/Title: LAURENCE B. GOODHUE
Organization:
Street & Number: 2601 E OCEAN BLVD phone: (310) 438-5142
City or Town: LONG BEACH State: CA Zip: 90803

\*\*\*\*\* Activity Log \*\*\*\*\*
Application Received: 11/10/92 Application Acknowledged:
Comment:
Status:
# of Requests for Info: Date of Last Request:
Type of Req. (Ph,Lt,Ret): Date Info Received:
Date of Public Hearing: SHRC Action (A,D,P,T):
# of Times sent to NPS: Date Signed by State:
NPS Action (R,L,E,D): Date last sent to NPS:
Date:

\*\*\*\*\* Owners \*\*\*\*\*
Owner:
Organization: CITY OF LONG BEACH Number: 19- 84- 1
Street & number: 333 W OCEAN BLVD phone:
City, town: LONG BEACH state: CA zip: 90802

PHI 50

19-186115

Long Beach Marine Stadium  
Point of Historical Interest application  
Staff Evaluation

The Long Beach Marine Stadium is an engineered body of water one and a quarter miles long and six hundred feet wide. Enclosed on three sides, it is lined in quarry rock with some sandy beach areas. The course was constructed beginning in 1930, and was completed in time for the 1932 Olympics.

The stadium is used for rowing, and it was the first such structure to be built for competitive rowing events. It has been used in Olympic trials and training, and by the crews of CSU, Long Beach and the Long Beach Rowing Association. The stadium appears to be significant on the local level, and would thus qualify for Point designation. Its use in the Olympics would also appear to lend it a higher level of importance in the history of recreation, and it would likely qualify as a state landmark. It is staff's recommendation to designate the stadium as a Point, and to encourage the applicant to apply for landmark status.

Marylne Bourne Lortie  
January 12, 1993

LONG BEACH MARINE STADIUM  
COUNTY OF LOS ANGELES  
APPLICATION FOR  
CALIFORNIA POINT OF HISTORICAL INTEREST

PREPARED BY:

LAURENCE B. GOODHUE  
2601 EAST OCEAN BLVD  
LONG BEACH  
CALIFORNIA  
90803  
310 438 5142

STATE SENATE DISTRICT:  
# 29 :SENATOR BEVERLY

STATE ASSEMBLY DISTRICT:  
#58 ASSEMBLYMAN MAYS

79355  
19-84

THIS FORM IS ON NCR (NO CARBON REQUIRED) PAPER. PLEASE USE TYPEWRITER, SIGN ALL 3 COPIES; REMOVE AND RETAIN PINK COPY. TRANSMIT ORIGINAL AND TRIPPLICATE TO: STATE HISTORICAL RESOURCES COMMISSION, DEPARTMENT OF PARKS AND RECREATION, P.O. BOX 942896, SACRAMENTO, CALIFORNIA 94296-0001. DO NOT FOLD.

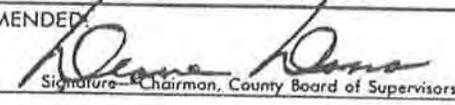
STATE OF CALIFORNIA—THE RESOURCES AGENCY  
 DEPARTMENT OF PARKS AND RECREATION  
**POINT OF HISTORICAL INTEREST**

DO NOT WRITE IN THIS BLOCK  
 Reg. No. \_\_\_\_\_  
 Date \_\_\_\_\_  
 By \_\_\_\_\_

County <b>LOS ANGELES</b>	Name <b>MARINE STADIUM</b>
------------------------------	-------------------------------

Location  
**LONG BEACH, CALIFORNIA -- Appian Way/Nieto/Eliot/Boathouse Lane**

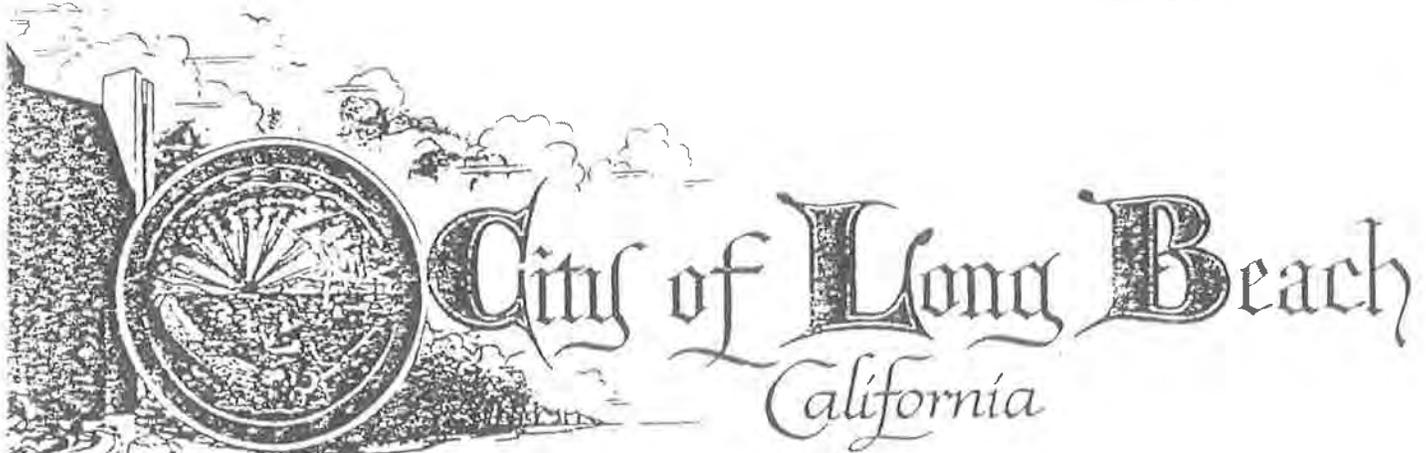
Historical Significance (Summary Paragraph Only):  
 THE LONG BEACH MARINE STADIUM IS SIGNIFICANT. IT WAS:  
 1. A ROWING VENUE FOR THE XTH OLYMPIAD 1932 GAMES; and  
 2. THE FIRST MAN-MADE ROWING COURSE IN THE UNITED STATES.  
 The Long Beach Marine Stadium is historically significant because it was the site of the rowing games of the XTH Olympiad (1932 Olympics). It was further elected as the site for the 1968, 1976, and 1984 United States Olympic Rowing trials and six times selected as an official United States Olympic Training center to train candidates for the U.S. National and Olympic Rowing Teams. Over the past 60 years it has been used as a training facility for the crews of C.S.U.L.B. and the Long Beach Rowing Association. It was the first home for the crews of U.S.C. Since 1932 it has served as an important recreational site for the people of Long Beach and the surrounding region.  
 THIS POINT OF HISTORICAL INTEREST IS NOT A STATE REGISTERED HISTORICAL LANDMARK.

RECOMMENDED:  
  
 Signature—Chairman, County Board of Supervisors  
 Date November 4, 1992

APPROVED:  
 \_\_\_\_\_  
 Signature—Chairman, State Historical Resources Commission  
 Date \_\_\_\_\_

## LONG BEACH MARINE STADIUM - HISTORIC TIMELINE

- 1920 -- Antwerp, Belgium**  
Representatives from Los Angeles County and City athletic, civic and government organizations petition the International Olympic Committee (IOC) for rights to host the 1932 Olympic Games.
- 1923 -- Rome, Italy**  
Petition to host the 1932 10th Olympiad granted by the IOC to the United States, the State of California and Los Angeles.
- 1923 -- Long Beach, California**  
San Gabriel River Land Improvements, Co. grants land to the City of Long Beach for Marine Stadium.
- 1929 -- Sacramento, California**  
California State Legislature supports the 1932 Olympic Games; state voters, by an overwhelming majority, endorse the Legislature's action.
- 1931-32 -- Long Beach, California**  
Long Beach builds Marine Stadium, the first man-made course in the U.S. designed specifically for rowing.
- 1932 -- Los Angeles, California**  
Tenth Olympic Games take place.
- 1968, 1976, 1984 -- Long Beach, California**  
Site selected for U.S. Olympic rowing trials. City of Long Beach spends \$2 million on site improvements.
- 1985 -- Long Beach, California**  
City of Long Beach petitions Los Angeles Olympic Commission for 1984 surplus funds grant to expand upon rowing programs, following the tradition of the 1920 petition presented in Antwerp.
- May, 1992 -- Long Beach, California**  
Sub-committee of Long Beach Cultural Heritage Commission recommends nomination of Marine Stadium as Long Beach historic site.
- June, 1992 -- Long Beach California**  
Long Beach Cultural Heritage Commission unanimously approves nomination of Marine Stadium as historic site.
- August 6, 1992 -- Long Beach, California**  
Commemoration ceremony recognizing Marine Stadium as a historic site, held on the 60th anniversary of the 1932 Olympic Rowing Games.



## PROCLAMATION

### LONG BEACH MARINE STADIUM 60th Anniversary

WHEREAS, Long Beach Marine Stadium was built in 1932 for the 10th Olympic Rowing Games and will be dedicated as a Long Beach historic site during a special commemorative ceremony on August 6, 1992; and

WHEREAS, Long Beach Marine Stadium, now used for rowing, water-skiing, powerboat racing and a national and Olympic rowing training center, was also the site of the United States rowing trials during the 1968, 1976, and the 1984 Olympics; and

WHEREAS, Long Beach Marine Stadium, designed specifically for rowing and boating, was the first man-made rowing course in the United States and the first in the world; and

WHEREAS, Long Beach Marine Stadium has been in constant use for collegiate rowing competitions and inter-club events. It was selected as the site for the 1976 Woman's National Rowing Championships, and the 1976 Woman's Olympic Sculling Trials; and

WHEREAS, in 1984 Long Beach Marine Stadium was the site of the Olympic Woman's Sculling Camp and Trials, and has been host to international competitors from all over the world including Canada, Mexico, West Germany, Finland and Argentina;

NOW, THEREFORE, I, ERNIE KELL, Mayor of the City of Long Beach, proclaim the LONG BEACH MARINE STADIUM to be an historical site, and commend and congratulate all those whose efforts led to this dedication.

ERNIE KELL  
MAYOR

Dated: August 6, 1992



539-11 19-186115

STATE HISTORICAL RESOURCES COMMISSION

DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 942896  
SACRAMENTO 94296-0001  
(916) 653-8624  
FAX (916) 653-9824



March 15, 1993

Mr. Larry J. Monteilh, Executive Officer  
Los Angeles County Board of Supervisors  
383 Hall of Administration  
Los Angeles, CA 90012

Dear Mr. Monteilh:

The State Historical Resources Commission, meeting in regular session on February 5, 1993, in Sacramento, approved the application for the registration of the following Points of Historical Interest in your county:

- LAN-055 LEONIS ADOBE, CALABASAS
- LAN-056 MARINE STADIUM, LONG BEACH ✓

Thank you for your continued interest in California's cultural resources

Sincerely,

Sandra J. Elder  
Assistant Executive Secretary

enclosure

cc: Mr. David G. Cameron  
Leonis Adobe Association  
23537 Calabasas Road  
Calabasas, CA 91302

Mr. Laurence B. Goodhue  
2601 East Ocean Blvd.  
Long Beach, CA 90803

19-186115

*mapped  
Long Beach  
W5 Alamitos*

NAME LONG BEACH MARINE STADIUM

COUNTY LOS ANGELES COUNTY

STATE HISTORICAL RESOURCES COMMISSION:

DR. PATRICIA C. MARTZ, CHAIRPERSON

DR. ROBERT L. HOOVER, VICE CHAIRPERSON

MS. PAULA BOGHOSIAN

MR. HERBERT H. BRIN

MR. DAVID G. CAMERON

MR. JOHN D. HENDERSON, FAIA

MR. RICHARD M. MILANOVICH

MRS SUE F. SCHECHTER

AUGUST 5, 1994

DATE OF STATE HISTORICAL RESOURCES COMMISSION ACTION

*Donald W. Murphy*  
DIRECTOR, DEPARTMENT OF PARKS AND RECREATION

CALIFORNIA REGISTERED HISTORICAL LANDMARK

NUMBER 1 0 1 4

DATE AUGUST 23, 1994

APPLICATION FOR REGISTRATION OF HISTORICAL LANDMARK 19-186115

Name of Proposed Landmark Long Beach Marine Stadium

Location Anoian Way and Niero Appian Way and Nieto

Long Beach, California

County Los Angeles

Name and Address of Landowner upon Whose Property Landmark is Proposed City of Long Beach

APN 7242-5-900

Name and Address of Applicant Ralph S. Cryder, Director Phone No. (310) 421-9431

City of Long Beach, Department of Parks, Recreation and Marine

2760 Studebaker Road Long Beach, CA Bus. Phone No. same

90815

Is this landmark of statewide significance as described in the Statement of Policy? Yes

Explain (use extra sheet if necessary):

Marine Stadium, constructed by the City of Long Beach to host the X Olympiad rowing competition in 1932, was the first manmade watercourse ever constructed for the Olympic Games. Along with the Los Angeles Coliseum, it is one of the few remaining sites constructed for the 1932 Olympic Games that remain in existence today. The Games took place in Los Angeles July 30 - August 14, with the rowing events in Long Beach held from August 9 - 11.

article in the Long Beach Press-Telegram, reporting on the opening ceremonies, quoted Zach Farmer, manager of the Olympic Games, as follows:

"The (Marine) Stadium will mark the first time in the history of the world that a Marine Stadium has been erected. That is because your course, unexcelled anywhere in the world, is the only course where spectators can see both the beginning and the finish of the events...Your stadium and rowing course will mean that a constant series of events will be underway...your course offers the best ever found." (Long Beach Independent Press Telegram, "Long Beach Envisioned as U.S. Rowing Capitol," July 24, 1932).

The City of Long Beach allocated \$77,000 in oil money to pay for the widening and straightening of a portion of Alamitos Bay, and erecting accessory facilities. One of the advantages of this rowing venue was its width, which permitted four teams to race abreast, eliminating additional heats and allowing oarsmen to enter the finals at the peak of their form. The 1932 Olympic gold medal for the rowing event was a close race between the Italian and American teams, with the Americans winning by a few feet.

continued

Is bibliography complete? (To enable verification of statements and claims made herein.) Yes

Is permission of property owner for registration attached? Yes

Is approval of property owner to place a plaque attached? Yes

Is proof of reasonable protection for requested landmark attached? Yes

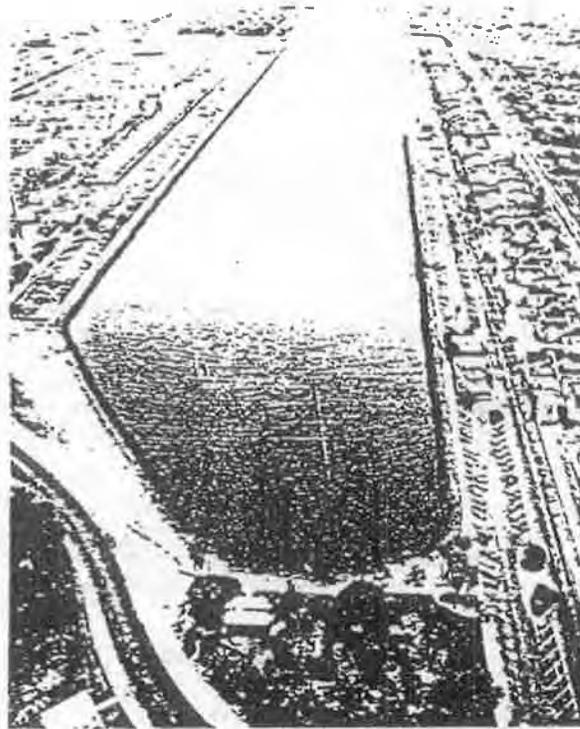
Are photographs, prints, or drawings (two views) attached? Yes

The Long Beach Marine Stadium is a body of water 2000 meters long and approximately 100 yards wide, oriented north/northwest. It was constructed by widening and dredging a section of Alamitos Bay in the eastern portion of Long Beach, to create a rowing venue for the 1932 Olympics held in Los Angeles (X Olympiad). The northern shore is lined with quarry rock, and the southern shore a combination of quarry rock and sandy beach.

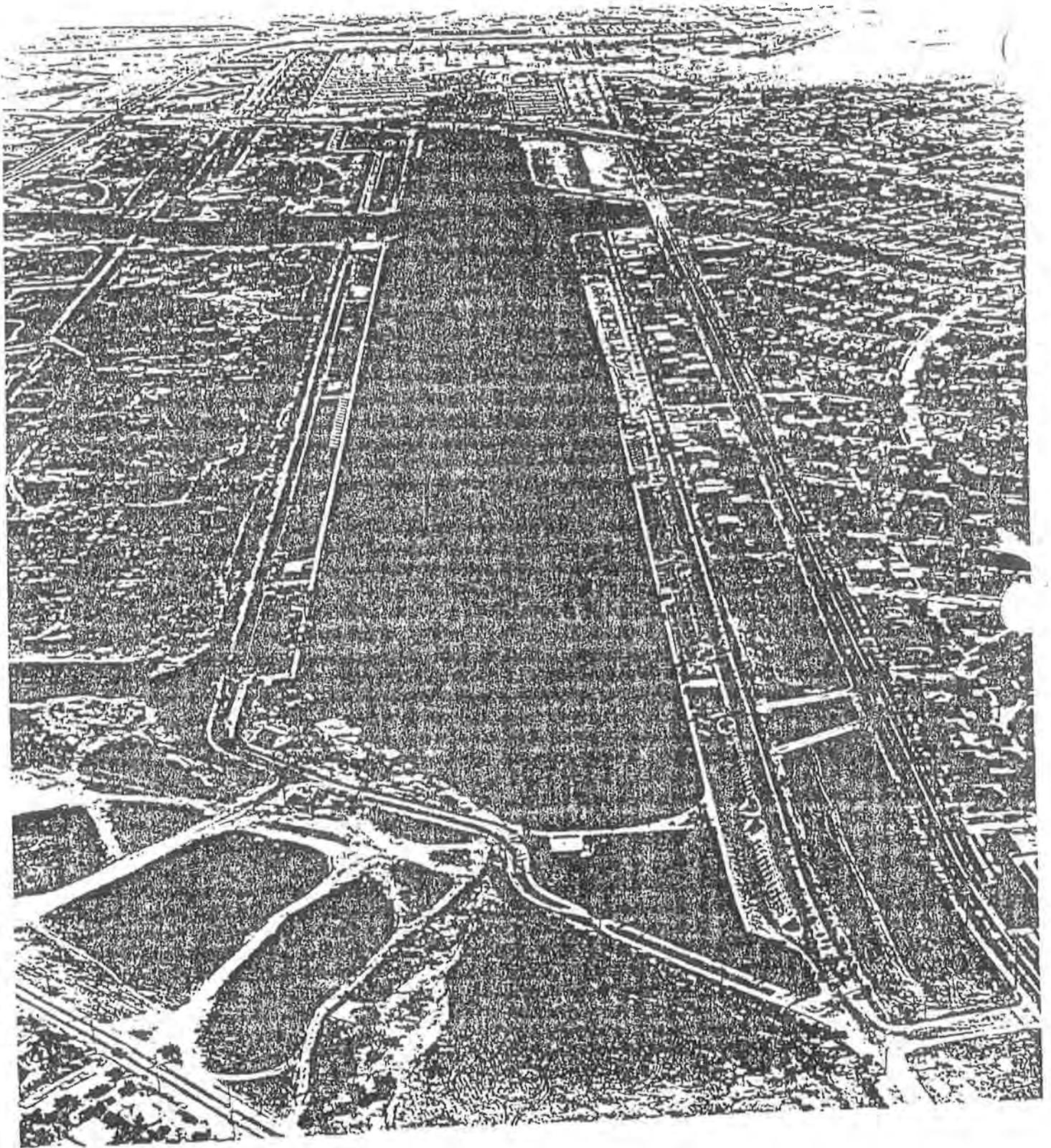
Later construction of the Second Street bridge over the boating channel cost the facility its chance at a 1984 rerun. There have been some modifications to the exterior boundaries of the course, with a portion filled in to create a park and support facilities.

Marine Stadium has been in continuous use for water competitions and expositions since 1932. It has been used for Olympic trials, collegiate rowing competitions, and diverse aquatic and boating events. The Long Beach Rowing Association was formed in 1932 and has hosted many events from all over the world. Marine Stadium was selected as the site for the 1976 Women's National Rowing Championships and the 1976 Women's Olympic Sculling Trials; and it was twice designated as an Olympic Development Center.

When constructed in 1932, the surrounding land was vacant except for oil wells visible in the distance. Bleachers and a boathouse were constructed for the games. Today, houses and condominiums line have been constructed around the stadium. However, the water stadium itself and its uses have remained constant over the years.



May, 1992



Long Beach Independent Press-Telegram

Long Beach Library, Clipping File Marine Stadium

Long Beach Rowing Association, Archives

Signature *Ruthanne Lehn*

Date 12-16-93

---

This form and all related correspondence is to be sent to the State Historical Resources Commission, Post Office Box 942896, Sacramento, California 94296-0001.

An application must be considered solely on its historic or architectural merits and not for commercial gain, political benefits, or other non-historical reasons.

An individual commission member can advise and counsel an applicant, but all applications must be considered by the full commission meeting in regular session.

**REASONABLE PROTECTION FOR MARINE STADIUM:**

The Department of Parks, Recreation and Marine has completed a Master Plan for Marine Stadium, which is predicated upon the future use and enjoyment of the watercourse for the public.

Marine Stadium is designated by the City as a Long Beach Historical Site, assuring that Marine Stadium will continue to exist as a watercourse in substantially the form and use it has today.

Marine Stadium has been designated by the California Historic Resources Commission as a Point of Historical Interest.



Ruthann Lehrer  
Neighborhood and Historic Preservation Officer  
City of Long Beach

APPLICATION FOR REGISTRATION OF HISTORICAL LANDMARK

Page one, continued.....

Marine Stadium has been in constant use since the X Olympiad. The Long Beach Rowing Association was organized on July 28, 1932, four days after opening ceremonies for the Stadium. The 1968 Olympic rowing trials were held there in 1968; in 1976, the Women's National Rowing Championships and the Women's Olympic Sculling Camp and Trials took place there; and in 1984 it was the location of the Olympic Women's Sculling Camps and Trials. It has been used for a variety of other water sport events and exhibitions, and continues in use today.

RESOLUTION NO. C- 25635

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LONG BEACH SUPPORTING THE DESIGNATION OF THE MARINE STADIUM IN THE CITY OF LONG BEACH AS A CALIFORNIA HISTORICAL LANDMARK

WHEREAS, the Long Beach Marine Stadium is a cultural resource of statewide significance, having been constructed as the rowing venue for the 1932 Olympic Games in Los Angeles, and appears to meet the criteria of a California Historical Landmark; and

WHEREAS, the City's Director of Parks, Recreation & Marine, the Marine Advisory Commission and the Neighborhood and Historic Preservation Officer concur in that suggestion and h recommended support of this nomination; and

WHEREAS, the City Council wishes to support such designation;

NOW, THEREFORE, the City Council of the City of Long Beach resolves as follows:

Section 1. Pursuant to Section 5029 of the Public Resources Code of the State of California, the Marine Stadium of Long Beach is designated an Historic Resource, with specific information included as follows:

- A. Name of Current Property Owner: City of Long Beach.
- B. Designating Entity: California Historic Resources Commission.
- C. Specific Historical Resources Designation: California Historical Landmark.

John R. Calhoun  
City Attorney of Long Beach  
333 West Ocean Boulevard  
Long Beach, California 90802-4664  
(310) 570-2200

1           D. Legal Description of the Property: That portion of  
 2 that certain area marked "not a part of this tract" and partially  
 3 surrounded by Lot 3 of Tract No. 1779, in the City of Long Beach,  
 4 County of Los Angeles, State of California, as per map recorded in  
 5 Book 22 pages 26 and 27 of Maps, described as follows:

6           Beginning at a point in that certain exterior line  
 7 of said Lot 3 having a bearing of South 61°32' West and a length of  
 8 706.20 feet as shown on the map of said Tract No. 1779, which point  
 9 is 800 feet Northeasterly measured at right angles from the  
 10 Northeasterly line of the right of way of Pacific Electric Railway  
 11 Company, as shown on the map of said Tract 1779, thence from said  
 12 point of beginning following the exterior lines of said Lot 3, North  
 13 61° 32' East to an angle in the exterior line of said Lot 3; thence  
 14 North 48° 17' East 528 feet; thence North 28° 17' East 396 feet;  
 15 thence South 41° 58' East 178.20 feet; thence South 26° 17' West  
 16 448.80 feet; thence South 47° 32' West 501.60 feet; thence South 66°  
 17 17' West to a line parallel with and distant Northeasterly 800 feet,  
 18 measured at right angles from the Northeasterly line of said right  
 19 of way of Pacific Electric Railway Company; thence Northwesterly  
 20 along said parallel line to the point of beginning.

21           Excepting therefrom any portion thereof included  
 22 within the lines of the land described in the tide-land patent from  
 23 the State of California to Alamitos Land Company, recorded in Book  
 24 9 Page 107 of Patents.

25           Sec. 2. The City Clerk shall cause a certified copy of  
 26 this resolution to be submitted for recordation to the County  
 27 Recorder of the City of Los Angeles pursuant to Section 5029, supra.

28           Sec. 3. This resolution shall take effect immediately

1 upon its adoption by the City Council, and the City Clerk shall  
2 certify to the vote adopting this resolution.

3 I certify that this resolution was adopted by the  
4 City Council of the City of Long Beach at its meeting of

5 May 24 1994, by the following vote:

6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
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19  
20  
21  
22  
23  
24  
25

Ayes: Councilmembers: Lowenthal, Drummond, Clark,  
Robbins, Grabinski, Harwood.

Noes: Councilmembers: None.

Absent: Councilmembers: Braude, Topsy-Elvord, Kellogg.

*Shelba Powell*  
City Clerk

John R. Calhoun  
City Attorney of Long Beach  
333 West Ocean Boulevard  
Long Beach, California 90802-4664  
(310) 570-2200

26 WHK/amp  
6/23/93  
2/18/94 REVISIED  
27 4/1/94 REVISIED  
5/24/94 REVISIED  
28 5/26/94 REVISIED  
R5MARINE

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # P-19-186115

HRI # \_\_\_\_\_

Trinomial CA-LAN-056

No Trinomial!

NRHP Status Code 5S1

Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_

Reviewer \_\_\_\_\_

Date \_\_\_\_\_

Page 1 of 4

\*Resource Name or #: (Assigned by recorder) Marine Stadium

P1. Other Identifier: \_\_\_\_\_

\*P2. Location:  Not for Publication  Unrestricted

a. County Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

b. USGS 7.5' Quad Los Alamitos Date 1964 (1981) and Long Beach Date 1964 T 5S; R 12W; unsectioned; SE B.M.

c. Address Long Beach City \_\_\_\_\_ Zip \_\_\_\_\_

d. UTM: (Give more than one for large and/or linear resources) Zone \_\_; \_\_mE / \_\_mN (NAD27)

e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc. as appropriate) Marine Stadium is located in the northern portion of Alamitos Bay northwest of the mouth of the San Gabriel River.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, site setting, and boundaries) Marine Stadium is an engineered and constructed tidal water body built for use in the 1932 Olympics. Alamitos Bay, Colorado Lagoon, and Marine Stadium are tidal water bodies located in the southwestern portion of Long Beach and northwest of the mouth of the San Gabriel River. In 1923 the low-lying tidelands of Alamitos Bay were dredged to form Colorado Lagoon and Marine Stadium, which were used for recreational rowing. In 1930 construction of Marine Stadium began for use of the facility for rowing events in the 1932 Olympics.

\*P3b. Resource Attributes: (List attributes and codes) (HP42) Stadium/Sports arena

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

\*P5.

\*P6. Date Constructed/Age and Sources:

Historic  Prehistoric  Both  
1930

\*P7. Owner and Address:

City of Long Beach  
333 West Ocean Blvd., 5th Floor  
Long Beach, CA 90802

\*P8. Recorded by: (Name, affiliation, and address):

Terri Fulton and Phil Fulton  
LSA Associates, Inc.  
20 Executive Park, Suite 200  
Irvine, CA 92614

\*P9. Date recorded:

April 30, 2009

\*P10. Survey Type: (Describe)

Phase I Reconnaissance Survey

\*P11. Report citation: (Cite survey report and other sources or enter "none.") Cultural Resources Assessment for the Alamitos Bay Marina Rehabilitation Project, City of Long Beach, California, 2009. By: Terri Fulton

Attachments:  None  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record

Archaeological Record  District Record  Linear Feature Record  Milling Station Records  Rock Art Record

Artifact Record  Photograph Record  Other (List) \_\_\_\_\_

DPR 523A (1/95)

\*Required Information

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Page 2 of 4

\*NRHP Status Code 5S1

\*Resource Name or # Marine Stadium

B1. Historic Name: Marine Stadium

B2. Common Name: Same

B3. Original Use: 1932 Olympics rowing venue

B4. Present Use: Recreational and competitive rowing venue

\*B5. Architectural Style: Not Applicable (N/A)

\*B6. Construction History: (Construction date, alterations, and date of alterations) Alamitos Bay, Colorado Lagoon, and Marine Stadium are tidal water bodies located northwest of the mouth of the San Gabriel River. In 1923 the low-lying tidelands of Alamitos Bay were dredged to form Colorado Lagoon and Marine Stadium, which were used for recreational rowing. Marine Stadium was officially engineered and constructed beginning in 1930 for use in the 1932 Olympics. Construction of the Second Street bridge (also referred to as the Davies Bridge) over the boating channel in 1955, however, changed the original dimensions of Marine Stadium and cost the facility a chance to be used for the 1984 Olympics.

In 1968 the City of Long Beach remodeled Marine Stadium for the Olympic rowing and canoeing team trials. The boathouse that was used during the 1932 Olympics still remains; however, it has been extensively remodeled and is not listed as a historical landmark. Also, in the late 1960s the area between what is now the north end of Marine Stadium and the south end of Colorado Lagoon was filled, and the existing underground box culvert was constructed. This was part of the construction for the then-proposed Pacific Coast Freeway and further separated Colorado Lagoon from Marine Stadium. This "filled" area is now Marina Vista Park.

\*B7. Moved?  No  Yes  Unknown Date: Original Location:

\*B8. Related Features:

B9a. Architect: N/A

b. Builder: Unknown.

\*B10. Significance: Theme: 1932 Olympics

Area: Los Angeles and vicinity

Period of Significance: 1932

Property Type: Rowing venue

Applicable Criteria: N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Marine Stadium was used for rowing competitions during the 1932 Olympics. During those games, the United States rowing team won the gold medal in Marine Stadium. Marine Stadium is the only rowing venue specifically built for the sport in the United States and it continues to be a center for training United States Olympic Rowing Teams. In 1984, the Women's Olympic Sculling trials were held in Marine Stadium. Marine Stadium is also the location from which aviators Clyde Schlieper and Wes Carroll set off when they set a world record for longest sustained flight (30 days) in 1939. In addition, Marine Stadium is significant because it and the Los Angeles Coliseum are the only two surviving 1932 Olympic structures. For these reasons, Marine Stadium was designated a California Historical Landmark (CHL #1014) on April 29, 1995 and therefore automatically listed in the California Register of Historical Resources. Despite the infilling of the area between Colorado Lagoon and Marine Stadium, which relocated the Olympic course's finish line, Marine Stadium still provides 2,000 meters (m) of straight water, which is the standard sprint distance for national and international rowing.

The integrity of Marine Stadium has been compromised by the numerous alterations that have taken place over the years. These include construction of the 2nd Street Bridge in 1955, the remodeling of Marine Stadium in 1968, and the infilling of the area separating Marine Stadium from Colorado Lagoon. In addition, the original boathouse has been extensively remodeled over the years. Due to this lack of integrity, Marine Stadium was determined to be ineligible for the National Register of Historic Places by the U.S. Army Corps of Engineers during its evaluation of the property in 1960.

B11. Additional Resource Attributes: (List attributes and codes)

\*B12. References:

B13. Remarks:

(This space reserved for official comments.)



**BUILDING, STRUCTURE, AND OBJECT RECORD**

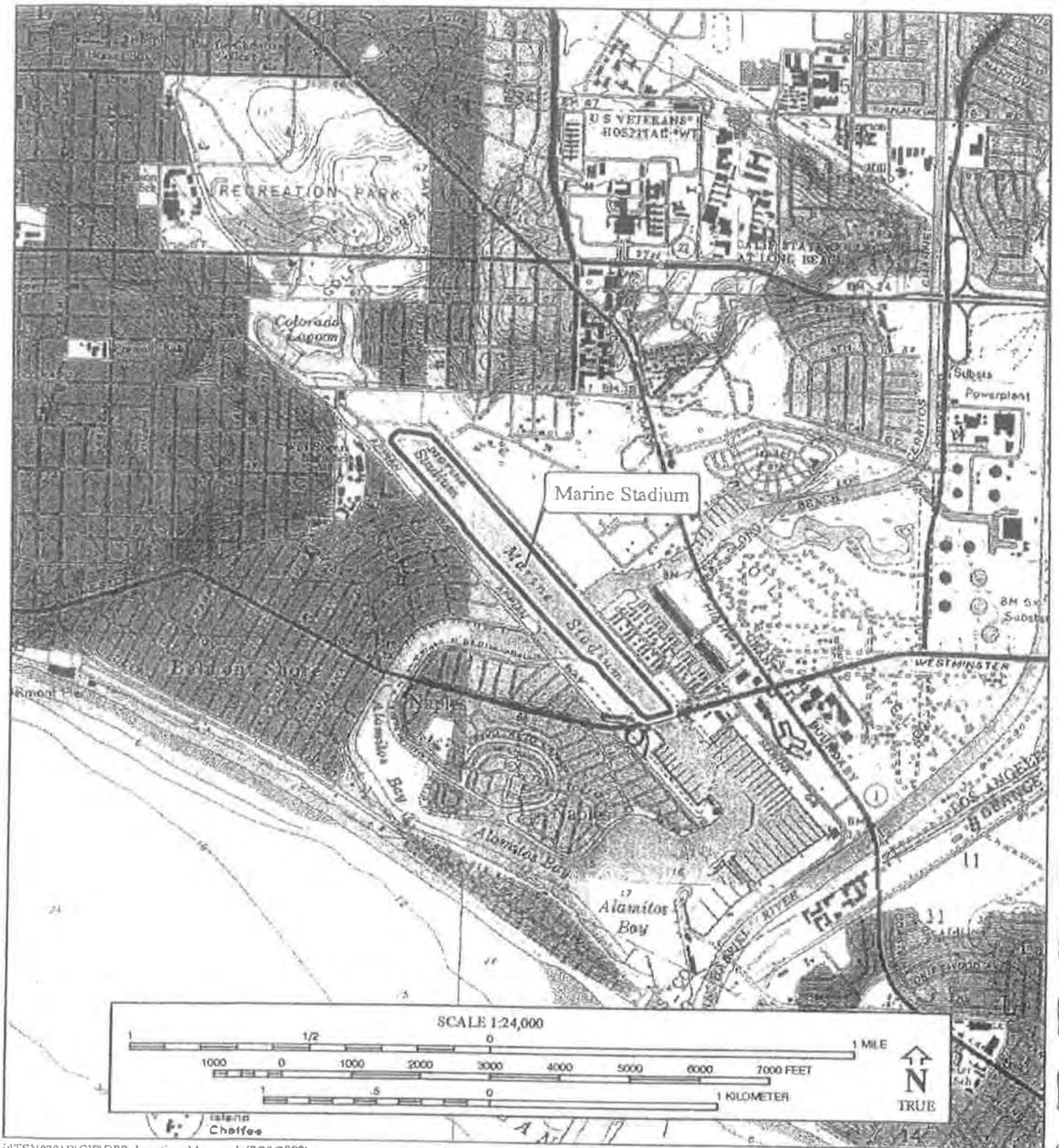
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Page 3 of 4

Resource Name or #\* (Assigned by recorder) \_\_\_\_\_

\*B14. Evaluator: Terri Fulton and Deborah McLean, LSA Associates Inc, 20 Executive Park, Irvine, California 92614

\*Date of Evaluation: April 30, 2009





State of California — The Resources Agency  
**DEPARTMENT OF PARKS AND RECREATION**  
**PRIMARY RECORD**

Primary # P-19-186880

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

NRHP Status Code \_\_\_\_\_

Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_

Reviewer \_\_\_\_\_

Date \_\_\_\_\_

Page 1 of 12

\*Resource Name or #: (Assigned by recorder) Alamitos Generating Station Fuel Oil Tank Farm

**P1. Other Identifier:** \_\_\_\_\_

**\*P2. Location:**  Not for Publication  Unrestricted \*a. County Los Angeles  
 and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad Los Alamitos Date 1964 (1972) Township/Range T 5S R 12W; (not listed on map).

c. Address 400 North Studebaker Road City Long Beach Zip 90803

d. UTM: Four sets of UTMs representing corners of project area listed on Continuation Sheet.

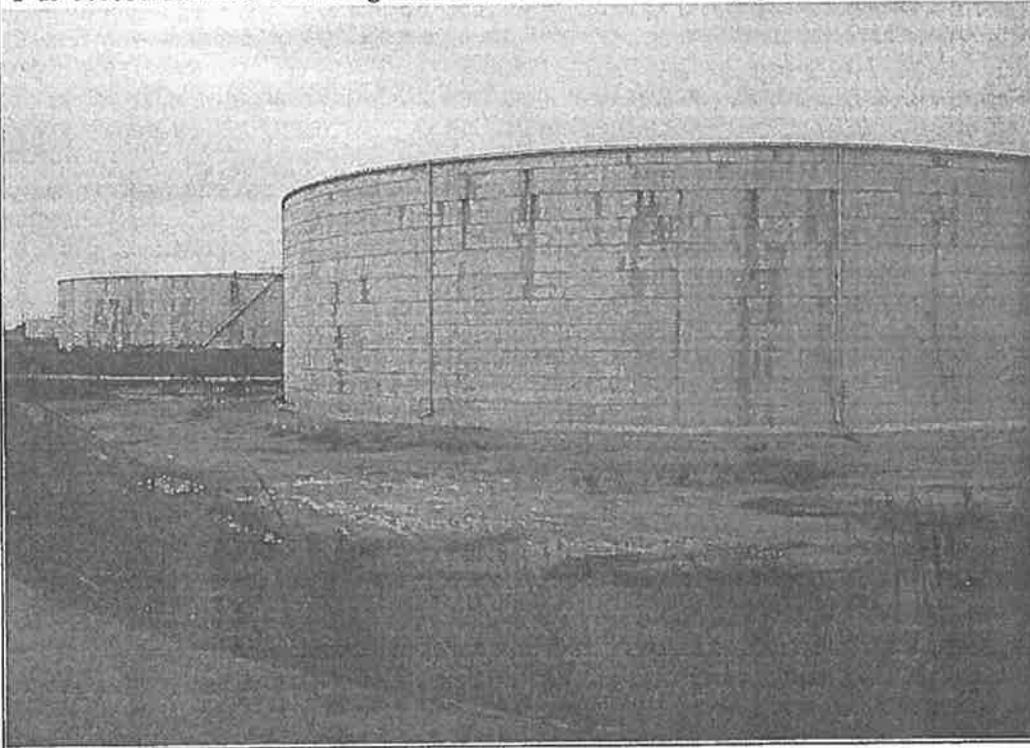
e. **Other Locational Data:** (e.g., parcel #, directions to resource, elevation, etc.) The site is located at an elevation of 5 ft. along the east side of Studebaker Road at Loynes Drive, 0.2 mile (0.3 km) north of Westminster Ave. and 0.2 mile south of 7<sup>th</sup> St. (SR 22), on the west side of the San Gabriel River. Calif. State University, Long Beach is located 0.75 mile... (See Contin. Sheet)

**\*P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site is a large capacity petroleum storage yard, or tank farm, for the Southern California Edison Alamitos Electrical Generating Station. Currently, the fuel tank farm consists of 4 large capacity petroleum fuel oil tanks (Tanks No. 1-4), 2 smaller cutter/displacement ... (See Contin. Sheet)

**\*P3b. Resource Attributes:** Petroleum Fuel Tanks (HP11).

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other

**P-19-186880: Alamitos Generating Station Fuel Tank Farm. Tanks 1 (right) and 2. View to SSW.**



**\*P6. Date Constructed/Age and**

Sources:  Historic  
 Prehistoric

**\*P7. Owner and Address:**  
Southern California Edison Co.  
690 No. Studebaker Road  
Long Beach, CA 90803

**\*P8. Recorded by:**  
Ivan Strudwick  
LSA Associates, Inc.  
20 Executive Park, Suite 200  
Irvine, CA 92614-4731

**\*P9. Date recorded:**  
Feb. 20, 2004

**\*P10. Survey Type: (Describe)**  
Complete, Intensive Survey

**\* P11. Report Citation:** Strudwick, 2004. Cultural Resource Survey of the Alamitos Generating Station Fuel Oil Tank Farm, Long Beach, Los Angeles County, California. LSA Associates, Inc.

**Attachments:**  None  Location Map  Site Map  Continuation Sheets  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List): Location Map is Figure 1. Site Map is Aerial Photo, Figure 2.

State of California — The Resources Agency  
**DEPARTMENT OF PARKS AND RECREATION**  
**BUILDING, STRUCTURE, AND OBJECT RECORD**

Primary # P-19-186880  
 HRI# \_\_\_\_\_

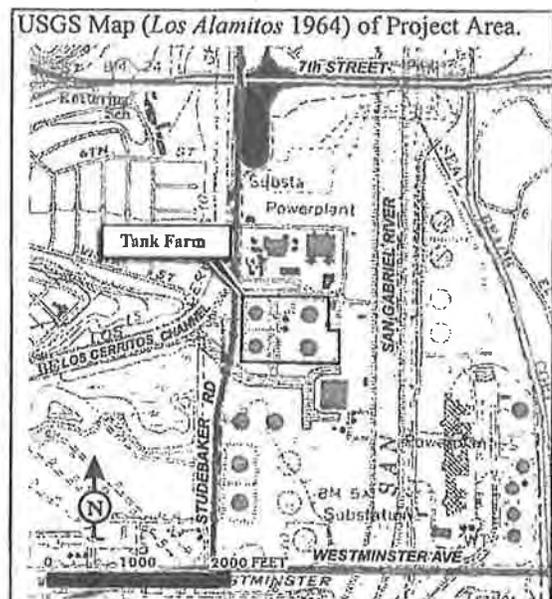
Page 2 of 12

NRHP Status Code: HP1 - Tank Farm and Fuel Oil Pumping Station

\*Resource Name or #: (Assigned by recorder) Alamitos Generating Station Fuel Oil Tank Farm

- B1.** Historic Name: Alamitos Generating Station Tank Farm
- B2.** Common Name: Oil Tanks
- B3.** Original Use: Fuel and Cutter/Displacement Oil Storage      **B4.** Present Use: None (Empty)
- \***B5.** Architectural Style: Welded Metal Tanks
- \***B6.** Construction History: (Construction date, alterations, and date of alterations)  
 An ID plaque on the NW side of Tank No. 1 shows it to have been constructed in 1955 in Vernon, Calif., has a height of 40 ft, a diameter of 160 ft. and a capacity of 143,200 BBL (42 gallon barrels). An ID plaque on the NE side of Tank No. 2 is identical to the plaque on Tank No. 1. A very clear ID plaque on Tank No. 6 shows it was constructed in 1956, has a height of 40 ft, a diameter of 60 ft, and a capacity of 20,120 BBL. These three tanks and initial construction of the Southern Calif. Edison (SCE) Alamitos Electrical Generating Station 330 ft (100 m) north of the current project area, ... (See Contin. Sheet)
- \***B7.** Moved?  No     Yes     Unknown    Date: N/A    Original Location: The tanks are in their original location.
- \***B8.** Related Features:  
 This tank farm and fuel oil pumping station is related to the SCE Alamitos Electrical Generating Station 330 ft (100 m) to the north, for which it was constructed to supply No. 6 fuel oil.
- B9a.** Architect: Unknown      **b. Builder:** Southern California Edison (SCE)
- \***B10.** Significance: Theme Electricity Generation    Area Long Beach  
 Period of Significance mid-late 1950s era    Property Type Tank Farm    Applicable Criteria None  
 (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)  
 The tanks are constructed similarly: welded metal fixed cone-roof tanks with asbestos-lined pipes. Tank Nos. 1-4 are fiberglass insulated and covered with a horizontally overlaid facade of plastic liners. ID plaques indicate... (See Contin. Sheet)
- B11.** Additional Resource Attributes: (List attributes and codes) HP1 - Tank Farm and Fuel Oil Pumping Facility for the Alamitos Electrical Generating Station.
- \***B12.** References: (See Continuation Sheet)
- B13.** Remarks: This late 1950s- tank farm and fuel oil pumping station appears to possess integrity, although it is recommended as not important under the Calif. Environmental Quality Act (CEQA) and therefore not eligible for listing on the California Register (see B10 and Continuation Sheet page 3). No fewer than 18 other similar size petroleum tanks exist within 0.5 mile (0.8 km) of the current Alamitos Generating Station Fuel Tank Farm project area (Figure 1).
- \***B14.** Evaluator: Ivan Strudwick
- \*Date of Evaluation: Feb. 20, 2004

(This space reserved for official comments.)



State of California — The Resources Agency  
**DEPARTMENT OF PARKS AND RECREATION**  
**CONTINUATION SHEET**

Primary # P-19-186880

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

Page 3 of 12

\*Resource Name or #: (Assigned by recorder) Alamitos Generating Station Fuel Oil Tank Farm

\*Recorded by Ivan. Strudwick

\*Date Feb. 20, 2004

Continuation  Update

**\*P2d. UTM:**

	<u>mE</u>	<u>mN</u>
NW corner:	397955	3736765
NE corner:	398235	3736745
SE corner:	398265	3736540
SW corner:	397955	3736540

**\*P2e. Other Locational Data:**

... (1.2 km) NW of the project area, and Landing Hill is located just over 1.0 mile (1.6 km) SE of the project area. The project area encompasses 17.8 acres and is located just inland of Alamitos Bay within what was once tidal mudflats.

**\*P3a. Description:**

... oil tanks (Tanks No. 5-6), a fuel oil pumping station with 2 natural gas-fired heaters designed to maintain oil flowability, and associated pipeline. A seventh tank, located east of the parcel, as well as the fuel pumping station, and Tank No. 5, will not be affected by the proposed project which includes demolition. The facility was originally constructed by Southern California Edison beginning in 1955 in order to pump and store No. 6 fuel oil burned by the Alamitos Electrical Power Generating Station, one of the principal suppliers of electricity to the Los Angeles Basin. Tank Nos. 1-6 are welded metal, fixed cone-roofed tanks with impervious gunite/asphalt-lined earthen berms capable of containing 110% of each tank's capacity. Tanks No. 1-4 are fiberglass insulated and covered with horizontally overlapping plastic, and pipelines leading to the tanks appear to be asbestos-lined on the exterior. What is known of tank size, capacity, and manufacture is included on the Building, Structure, and Object portion of this form.

**\*B6. Construction History: (Construction date, alterations, and date of alterations)**

... occurred in 1955 and early 1956. This information corresponds with aerial photographs showing that Tank Nos. 1, 2, 6, and the initial construction at the electrical generating facility existed July 14, 1956. Tank Nos. 3 and 4 do not contain ID plaques, however, another aerial photograph taken May 27, 1960 shows that they existed at the time of the photo. Tank Nos. 3 and 4 are significantly larger than Tanks 1 and 2. Tank Nos. 3 and 4 are the same size with a height of 40 ft, a diameter of 200 ft, and a capacity of 223,800 BBL.

**\*B10. (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)**

... that Tank Nos. 1 and 2 were constructed in Vernon, although a company name is not distinguishable. An ID plaque indicates that Tank No. 6 was constructed by General American Transportation Co. (GATEX). A real estate brochure of the project area (Cushman and Wakefield 2003) states that the tanks were manufactured by Chicago Bridge and Iron Co., so it is possible that Tank Nos. 3 and 4, which are larger than the other tanks, may have been manufactured by Chicago Bridge and Iron Co. Less than 50 years old, the tanks appear to have maintained their integrity, with the exception of warnings about the roof of Tank Nos. 1-4. A small sign, dated June 5, 1990, posted at the base of the staircase on Tank Nos. 1-4 warns that the structural integrity of the tank roofs is not good.

As the Alamitos Electrical Power Generating Facility is one of the principal suppliers of electricity to the Los Angeles Basin, this fuel tank farm was useful for many years. The generating facility was designed to be dual source-fired by either oil or natural gas. However, in the 1970s, with an increase in environmental awareness and implementation of CEQA, dual source-fired electrical generating plants were required to operate solely on natural gas. The Alamitos Generating Facility fuel oil tanks were no longer useful as designed, although they were maintained in case of a natural gas shortage. Additionally, there are 18 other similar sized oil tanks within 0.5 mil (0.8 km) of the project area, most of which are related to nearby electrical generating facilities. Because the tanks within the current project area are not distinctive in their design, are not associated with events of significance, and are not likely to yield important historic information, it is recommended that they are not important under CEQA and should not be listed on the California Register.

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
CONTINUATION SHEET

Primary # P-19-186880

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

Page 4 of 12

\*Resource Name or #: (Assigned by recorder) Alamitos Generating Station Fuel Oil Tank Farm

\*Recorded by Ivan. Strudwick

\*Date Feb. 20, 2004

Continuation  Update

**\*B12. References:**

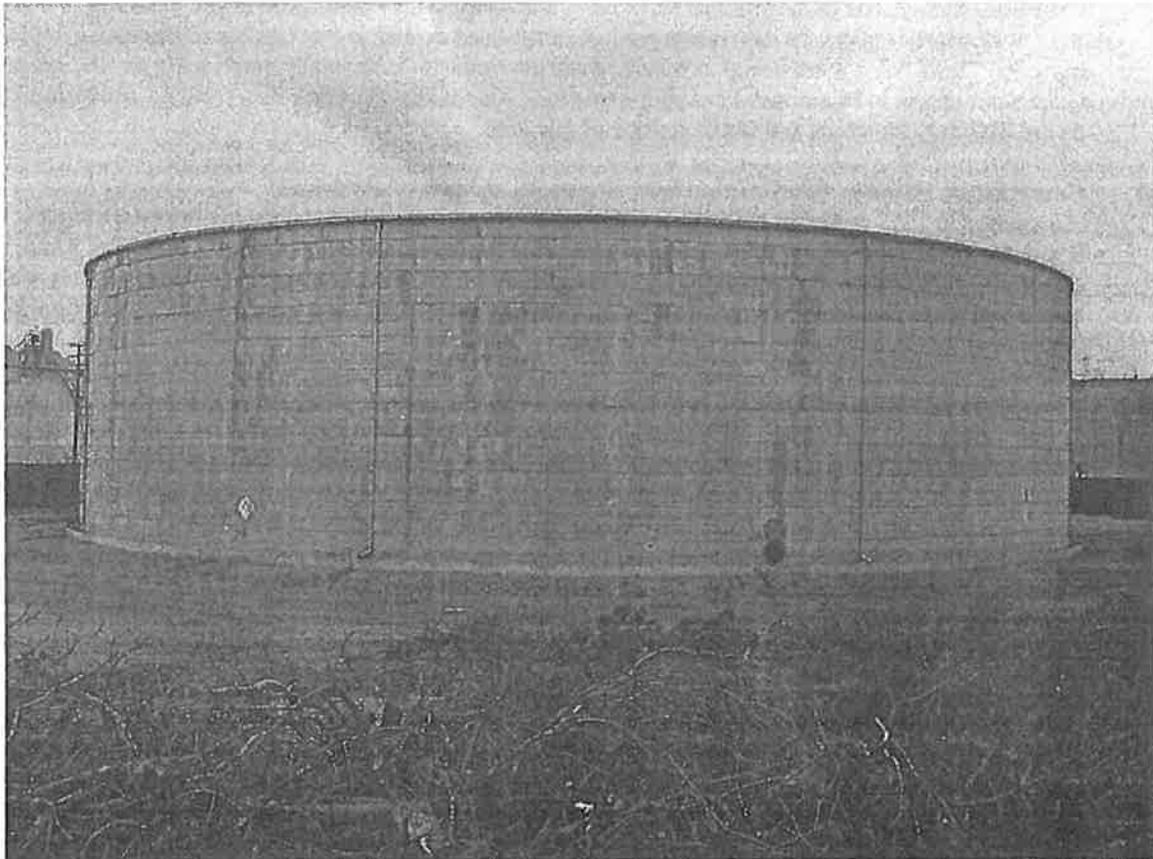
Cushman and Wakefield

2003 Large Capacity Petroleum Storage, Long Beach, California. David D. Mackenbach. Real Estate Brochure from Cushman & Wakefield, Global Real Estate Solutions.

Strudwick, Ivan H.

2004 Cultural Resource Survey of the Alamitos Generating Station Fuel Oil Tank Farm, Long Beach, Los Angeles County, California. Ms. On file, South Central Coastal Archaeological Information Center, California State University, Fullerton.

The following photos of the Alamitos Electrical Generating Fuel Oil Tank Farm on this and other Continuation Sheets are provided to document the tank farm:



Close-up of Tank No. 1 showing horizontal overlapping plastic façade, open oil tank cover on lower right hand side of tank, welded metal gutter and gravel pad around base, and earthen berm to each side of the tank creating retention basin. Portion of Tank No. 2 visible on right. View to SE.

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
CONTINUATION SHEET

Primary # P-19-186880

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

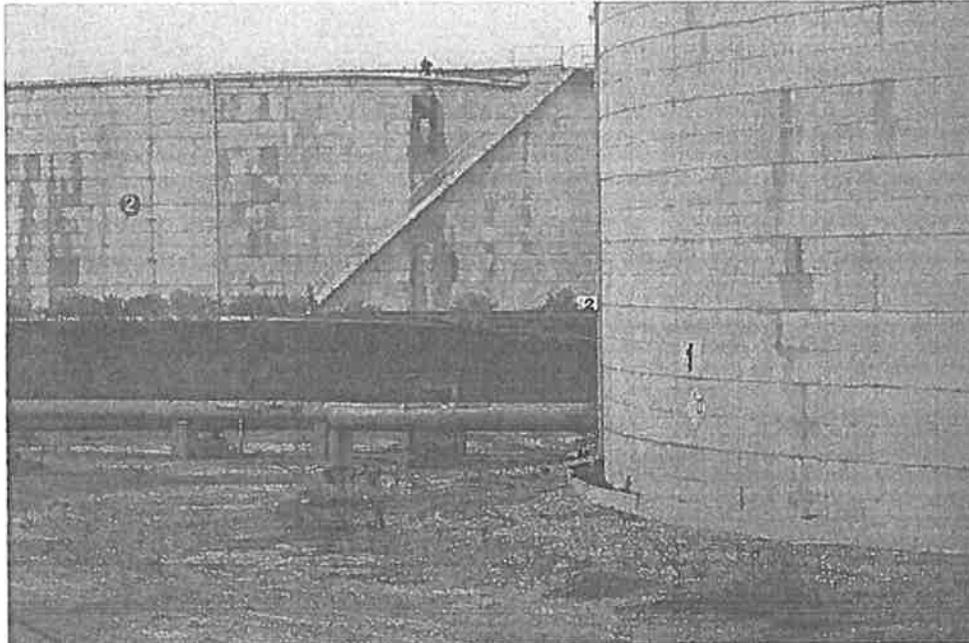
Page 5 of 12

\*Resource Name or #: (Assigned by recorder) Alamitos Generating Station Fuel Oil Tank Farm

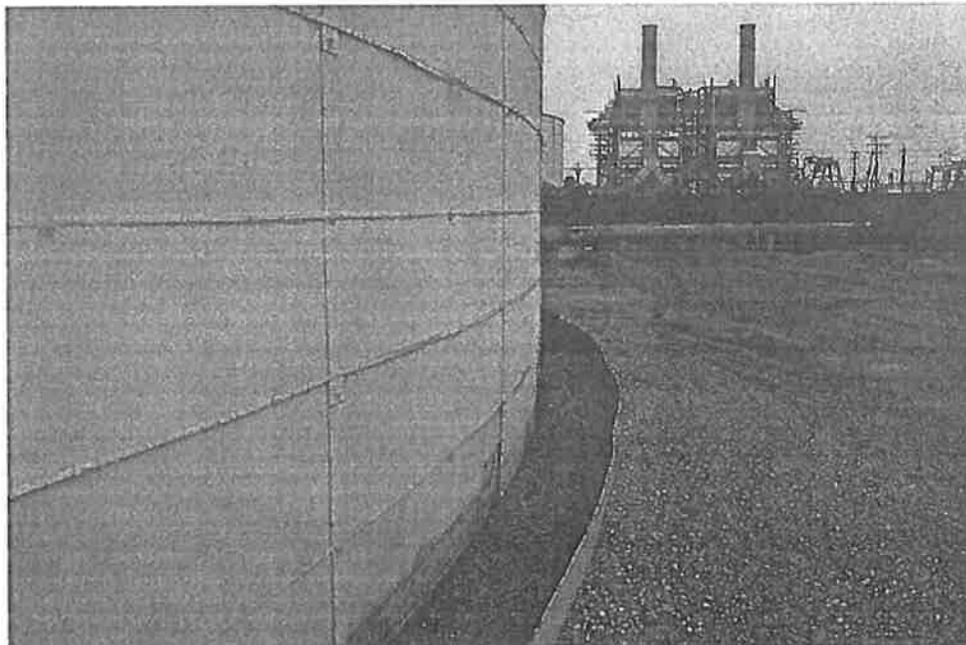
\*Recorded by Ivan. Strudwick

\*Date Feb. 20, 2004

Continuation  Update



Close-up of Tank Nos. 1 and 2. Note cement blocking under asbestos-lined pipe leading to Tank No. 1 and staircase leading up to the top of Tank No. 2. Note also earthen berm between tanks. View to SSW.



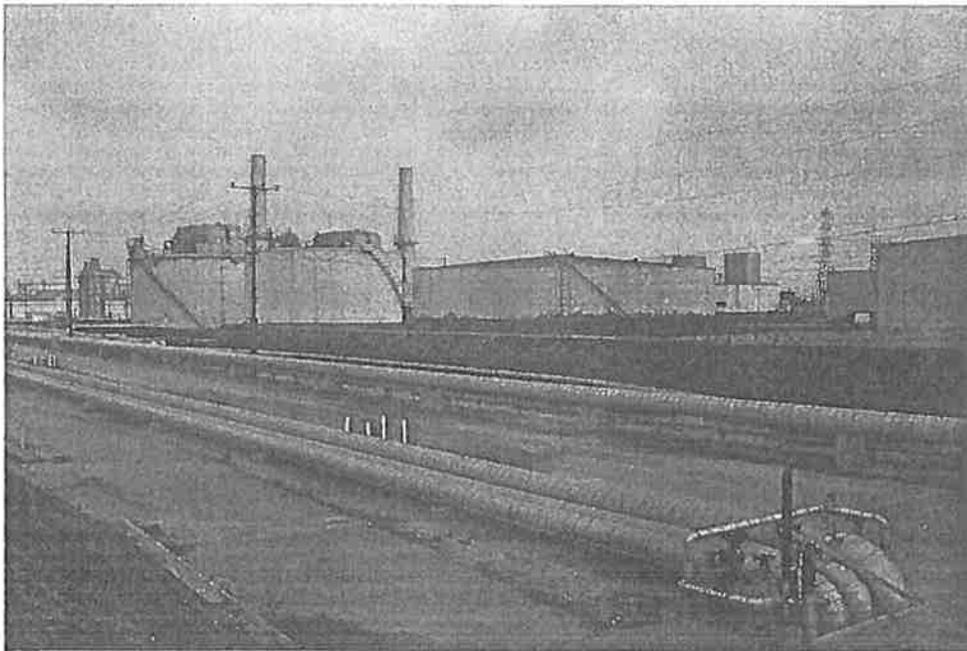
Base of Tank No. 2 detailing horizontal plastic façade, welded metal gutter, and gravel pad on which tank sits.

te Forms\Alamitos Tank Contin2.doc TechO\IRV05\PROJECTS\CLB430\Cultural Resources\Site

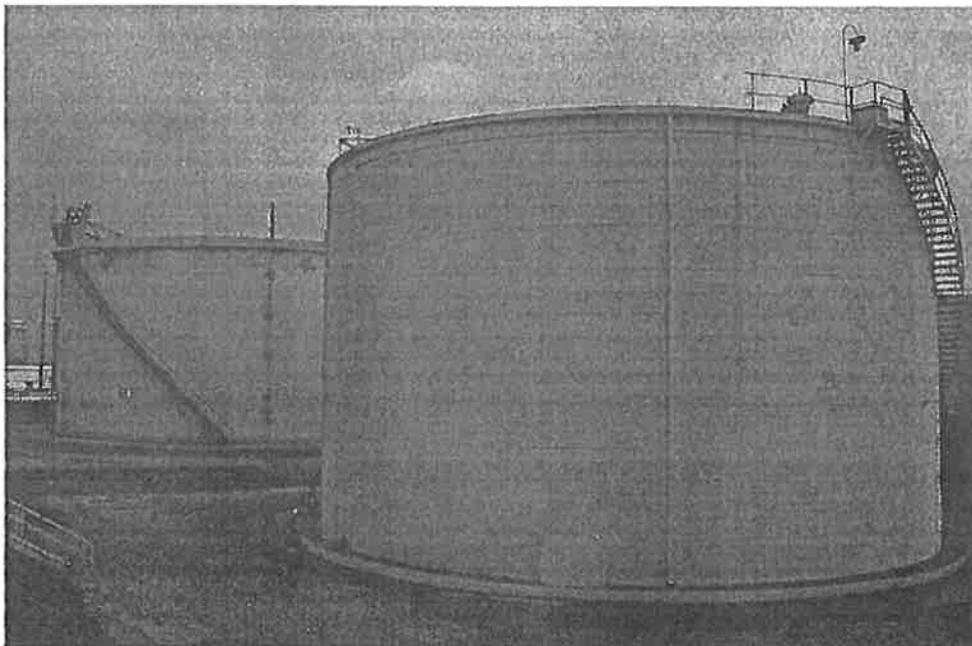
\*Recorded by Ivan. Strudwick

\*Date Feb. 20, 2004

Continuation     Update



Supply pipelines in middle of project area with earthen containment berm between pipes and tanks. In background from left to right, Tank Nos. 5, 6, 3, and left edge of Tank No. 4. View to NNE.



Close-up of Tank No. 6, with Tank No. 5 on left. Welded metal gutter and low gravel base under both tanks. Staircase on lower left leads over earthen spill-containment berm. View to NE.

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
CONTINUATION SHEET

Primary # P-19-186880

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

Page 7 of 12

\*Resource Name or #: (Assigned by recorder) Alamitos Generating Station Fuel Oil Tank Farm

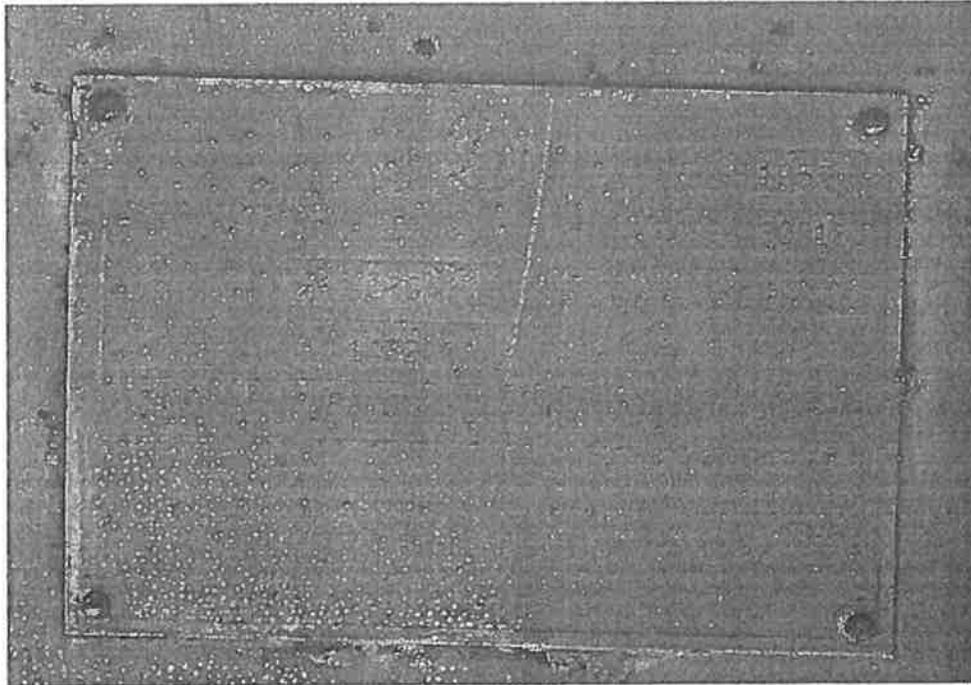
\*Recorded by Ivan. Strudwick

\*Date Feb. 20, 2004

Continuation  Update



ID plaque on east side of base of Tank No. 6 showing that it was manufactured by General American Transportation Co in 1956. Dimensions: 40 ft height, 60 ft diameter, capacity of 20,120 42 gallon barrels. View to WNW.



ID plaque on plate cover on NW side of Tank No. 1. Difficult to read due to age and having been painted. Date of 1955 visible in upper right corner. View to SE.

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
CONTINUATION SHEET

Primary # P-19-186880

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

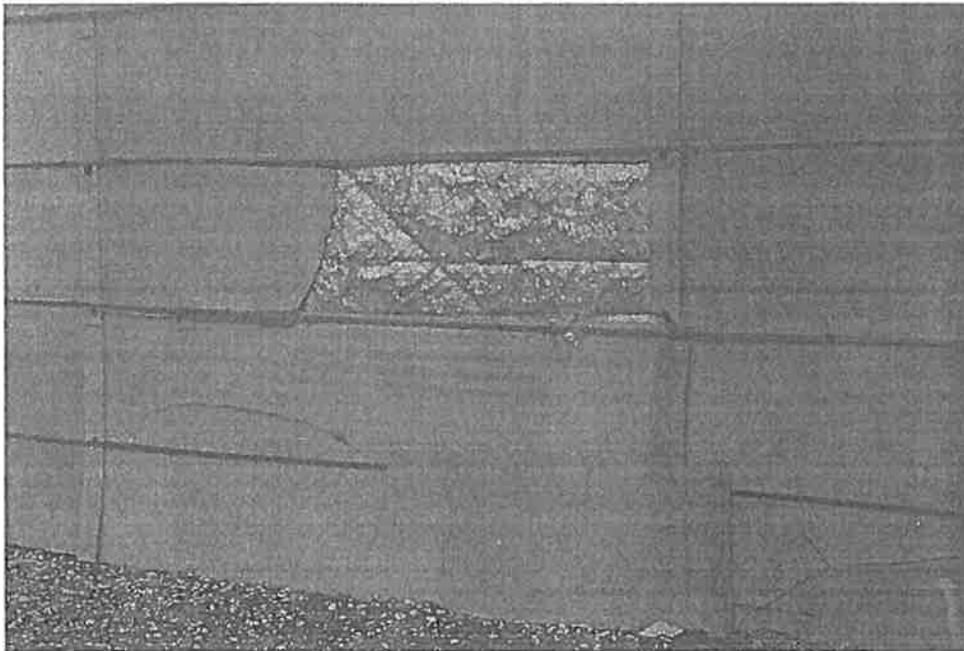
Page 8 of 12

\*Resource Name or #: (Assigned by recorder) Alamitos Generating Station Fuel Oil Tank Farm

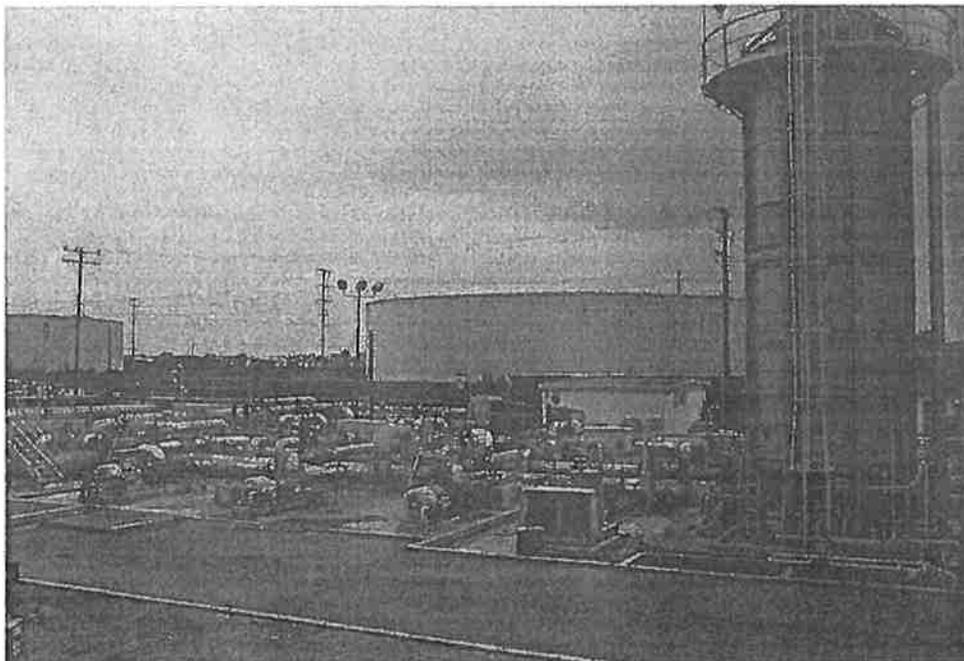
\*Recorded by Ivan. Strudwick

\*Date Feb. 20, 2004

Continuation     Update



West side of Tank No. 4 with part of plastic façade removed showing fibreglass insulation. Note gravel pad on which tank is situated. View to NNE.



Fuel oil pumping station portion of project area. Natural gas fired heater on right. Tank No. 1 (on right) and northern edge of Tank No. 2 in background. View to SW.

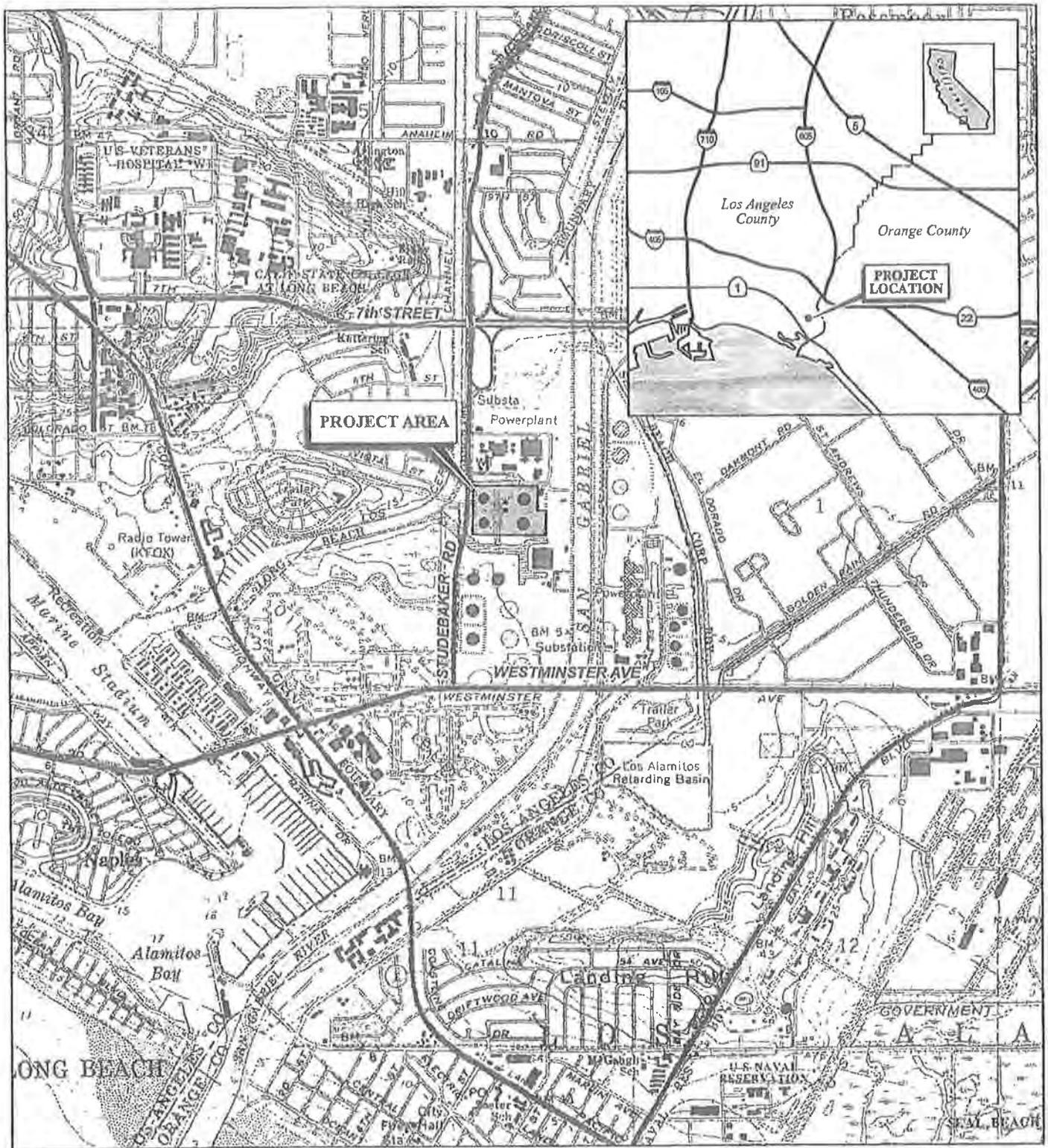
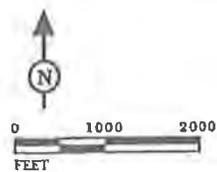


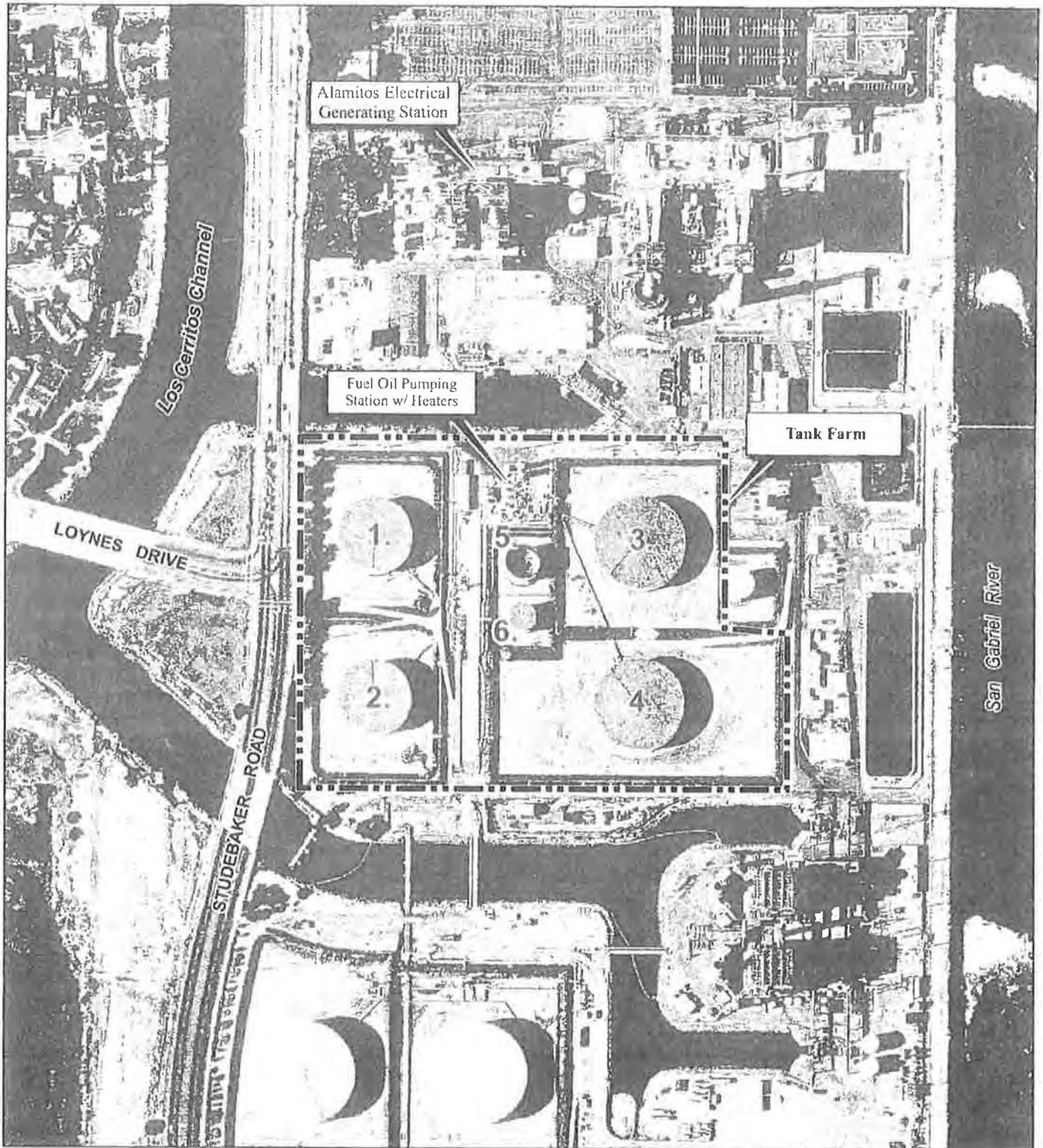
FIGURE 1

LSA



SOURCE: USGS 7.5' Quads - Seal Beach & Los Alamitos, Ca.

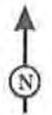
Alamitos Electrical Generating  
Station Fuel Oil Tank Farm  
Project Location



LSA

- PROJECT AREA
- 1. FUEL TANK

FIGURE 2



0 150 300 FEET  
 0 45.7 91.5 METERS

SOURCE: City of Long Beach, Public Works

IS: CLB430-G.Aerial\_2.cdr (3/30/04)

*Long Beach Home Depot*  
 Recent Aerial Photo Showing the Alamos  
 Electrical Generating Station Fuel Oil Tank Farm

**PHOTOGRAPHIC RECORD**  
**CALIFORNIA Department of Parks and Recreation**  
**Office of Historic Preservation**

Primary # P-19-186880  
 Trinomial/HRI# \_\_\_\_\_

Page 11 of 12

Property or Project Name/Temporary No.: Alamitos Generating Station Fuel Oil Tank Farm (Long Beach Home Depot CLB430)  
 Camera Format: Digital Lens Size: ~28-70  
 Film Type and Speed: Digital Format Year: 2004  
 Negatives kept at: LSA Associates, Inc., 20 Executive Park, Suite 200, Irvine, CA 92614 Roll #: CLB430 Roll 1

Mó.	Day	Time	Exp./ Neg.	Subject/Description	View Toward
Feb	20	9:26	1	Tanks No. 1 and 2. Photo taken from center of North side of Tank Farm Project Area.	SSW
Feb	20	9:28	2	Close-up showing Numbers on Tanks 1 and 2.	SSW
Feb	20	9:40	3	Tanks No. 1 and 2 from northwest corner of Tank Farm Project Area.	SE
Feb	20	9:41	4	Close-up of Tank No. 1.	SE
Feb	20	9:45	5	Overlapping horizontal plastic tank facade cover on Tank No. 1.	N
Feb	20	10:00	6	Broken tank facade showing interior steel hull and fiberglass. Tank No. 1.	NNE
Feb	20	10:01	7	Broken tank facade showing interior steel hull and fiberglass. Tank No. 1.	NNE
Feb	20	10:02	8	Base of Tank No. 1 showing oil caught in welded metal gutter.	W
Feb	20	10:03	9	Side of Tank No. 1 showing stairs	WNW
Feb	20	10:15	10	Tank No. 2. Entire tank from center of Project Area	SW
Feb	20	10:16	11	Base of Tank No. 2 showing gutter and gravel. Edison electrical generating station in background.	N
Feb	20	10:20	12	Panorama: Small Tanks No. 5 and 6, with Tank No. 3 in middle and edge of Tank No. 4 on right.	NNE
Feb	20	10:20	13	Panorama: Tanks No. 3 and 4	NE
Feb	20	10:20	14	Panorama: Tank No. 4. and So. edge of Project Area.	ENE
Feb	20	10:25	15	South edge of Project Area looking toward Alamitos Bay	W
Feb	20	10:28	16	Jim Harrison pointing toward Burrowing Owl	N
Feb	20	10:29	17	2 small tanks, Tanks No. 5 and 6	NE
Feb	20	10:34	18	Burrowing Owl in cut vegetation along south edge of Project Area	S
Feb	20	10:35	19	Burrowing Owl in cut vegetation along south edge of Project Area	S
Feb	20	10:45	20	Vegetation where Burrowing Owl was observed	NE
Feb	20	10:46	21	Tank No. 6 with Tank No. 5 on left	NE
Feb	20	10:46	22	Tank No. 6 Entire Tank	WNW
Feb	20	10:48	23	Tank No. 6 ID plaque on East side of tank	WNW
Feb	20	10:49	24	Tank No. 6 ID plaque	WNW
Feb	20	10:55	25	Tank No. 1 ID plaque on NW side of tank	SE
Feb	20	10:56	26	Tank No. 1 ID plaque location	SE
Feb	20	11:00	27	Tank No. 2 Opening and cover containing ID plaque on NE side of tank	SW
Feb	20	11:05	28	Tank No. 4 Entire tank	E
Feb	20	11:06	29	Tank No. 4 Exposed panel showing fiberglass insulation	NNE
Feb	20	11:09	30	Tank No. 4 showing asphalt go-cart race track in tank basin	WSW
Feb	20	11:15	31	Tank No. 4 Jim Harrison in cut opening into tank on NNE side	S



19-186924

USDA - Forest Service  
Angeles National Forest  
**PRIMARY RECORD**

Primary #:  
HRI #:  
Trinomial#: CA-  
NRHP Status Code:  
Other Listings  
Review Code:  
Reviewer:                      Date:

Page 1 of 3

**P1. Property Name/Temporary Number:**

Forest #: 05-01-53-260

Other Identifier: SCE Lake Hughes 12kV Distribution Circuit

**P2. Location (restricted information):**

a. County: Los Angeles

State: CA

b. USGS 7.5' Quad: within the Angeles National Forest, from NW to SE – Burnt Peak, Lake Hughes, south to Green Valley, and Sleepy Valley (SBM).      Date: 1995

Burnt Peak Quad: T7N, R16W, Sec 9, 10, 11, 12, 13; T7N, R15W, 18.

Lake Hughes Quad: T7N, R15W, Sec 17, 16, 21, 22, 23, 26, 25; T7N, R14W, Sec 30; T7N, R15W, Sec 27, 34, 33, 32, PB 41; T6N, R14W, Sec 5, 6, 7.

Green Valley Quad: T6N, R15W, Sec 12; T6N, R14W, Sec 7

Sleepy Valley Quad: T6N, R14W, Sec 14

c. Address: n/a

d. UTM: Zone: 11: Burnt Peak Quad - 356000mE/ 3842490mN (Sec 9) to 362600mE/ 3840140mN (Sec18).

Lake Hughes Quad – 362600mE/ 3840140mN (Sec17) to 371500mE/ 3836900mN (Sec 30).  
367000mE/ 3838200mN (Sec 22) to 362900mE/ 3834180mN(PB 41).  
373600mE/ 3834350mN (Sec 5) to 370560mE/ 3832160mN (Sec 7).

Green Valley Quad – 370620mE/ 3832160mN to 370660mE/ 3831500mN (Sec 12).

Sleepy Valley Quad – 378200mE/ 3829900mN to 378700mE/ 3830260mN (Sec 14)

**e. Other Locational Data (Provide parcel #, legal description, directions to resource, elevation,**

**other data as appropriate):** This cultural resource is a linear arrangement of poles that intersect, and can be accessed from Elizabeth Lake-Pine Canyon Road. The portion of the circuit within the boundaries of the Angeles National Forest (ANF), passes in and out of private inholdings and communities. In general, the circuit enters the ANF from the west in the northeast corner of Section 9 (T7N, R16W), as shown on the USGS 7.5 Burnt Peak Quadrangle, then proceeds in a southeasterly direction along Pine Canyon Road (FS 7N04) to Section 18 (T7N, R15W). The circuit then enters the Lake Hughes Quadrangle in Section 17 (T7N, R15W), and continues in a southeasterly direction along Elizabeth Lake-Pine Canyon Road through the community of Lake Hughes to Section 30, then exits the ANF. From the community of Lake Hughes, the circuit proceeds in a south-southwesterly direction along Lake Hughes Road, from Section 22 to PB 41, and terminates in the area of the Canyon Creek Complex. Another segment within the ANF on the Lake Hughes Quadrangle, follows within San Francisquito Canyon from Section 5 (T6N, R14W) to Section 7, in a southwesterly direction into the community of Green Valley. A short segment extends onto the Green Valley Quadrangle into the community of Green Valley in Section 7 (T6N, R14W) and Section 12 (T6N, R15W). A very short segment enters private inholdings (Lost Valley) within the ANF in Section 14 (T6N, R14W) on the Sleepy Valley Quadrangle.

USDA - Forest Service  
 Angeles National Forest  
**PRIMARY RECORD**  
 Page 2 of 3

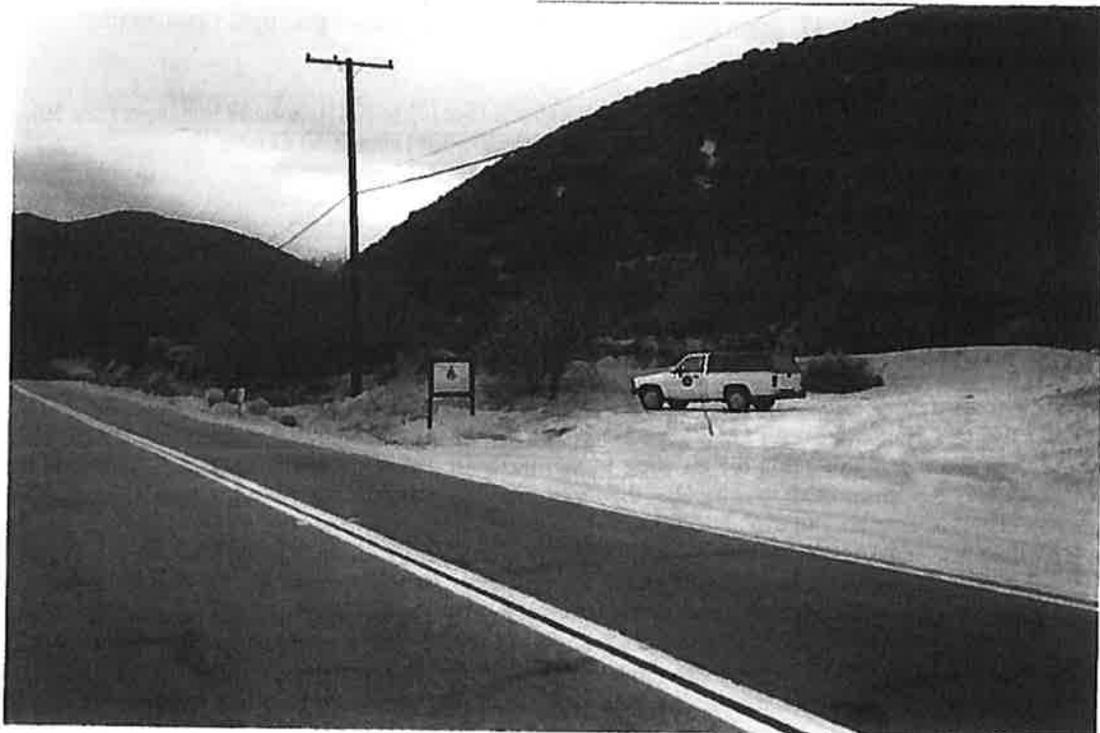
Primary #:  
 HRI #:  
 Trinomial#:CA- -  
 F.S. #:05-01-53-260

- P3. Description (Resource attributes, including design, materials, condition, size, setting and boundaries):** The wooden poles along the Lake Hughes 12kV Distribution Circuit were constructed, modified, and lengthened at various dates from ca. 1920s to the 1990s, and were used to extend services in response to increased demand in the greater community of Lake Hughes. The circuit is constructed of wooden poles and cross arms with metal braces, insulator brackets, and pins, and ceramic insulators; and most have been modified, upgraded, or replaced over the years as maintenance required.

The earliest recorded poles for the Lake Hughes circuit in the DPIS, consisted of 10 poles with pole-set dates recorded in 1920; however, there are problems regarding these initial dates due to contradictions in the records. The next installations recorded were one pole in 1925, and 22 poles installed in 1926. Additions were consistent through the early 1940s until construction in the Hughes Lake area was interrupted by World War II. Expansion picked up significantly in 1946, after the war, and continued through the 1990s. Historic information provided by SCE (2003).

- P4. Resources Present:** \_\_\_ Building  X  Structure \_\_\_ Object \_\_\_ Site \_\_\_ District  
 \_\_\_ Element of District \_\_\_ Road/Trail \_\_\_ Rock Art \_\_\_ Other:  
 Active wooden pole transmission line.

- P5. Photograph or Drawing (Required for buildings, structures and objects): Description of Photo:** typical wooden pole along the SCE Lake Hughes 12kV Distribution Circuit.



USDA - Forest Service  
 Angeles National Forest  
**PRIMARY RECORD**  
 Page 3 of 3

Primary #:  
 HRI #:  
 Trinomial#: CA - -  
 F.S.#: 05-01-53-260

- P6. Date Constructed/Age:** \_\_\_\_\_ Prehistoric  Historic \_\_\_\_\_ Both (Comment on age determination, i.e., type of artifacts, architectural style, etc.). ca. 1920/1925 to the 1990s.
- P7. Current Owner:** Southern California Edison Company  
**Address:** Rosemead Blvd., Rosemead, CA 91770
- P8a. Recorded by:** Gwen Romani  
**Affiliation:** Compass Rose Archaeological, Inc.  
**Address:** 6206 Peach Avenue, Van Nuys, CA 91411
- P8b. Updated by:** n/a  
**Affiliation:**  
**Address:**
- P9a. Date Recorded:** 3/25/03
- P9b. Date Updated:** n/a
- P10. Study Type/Methodology:** Phase I Cultural Resource Survey Conducted in Compliance with ARPA & Section 106 for Southern California Edison Company's Distribution Line Circuits within the Angeles National Forest.
- P11. Report Citation (Cite survey report/other sources or "none"):**  
 Romani, Gwen R., and Steve Dies  
 2003 Results of the Phase I Cultural Resource Investigation Conducted for Southern California Edison's Lake Hughes 12 kV D/L Distribution Circuit, Angeles National Forest, Los Angeles, County, California (ARR 05-01-00802). Submitted to Southern California Edison Company, Rosemead, California.

**Other Sources:**

**Attachments:**

- \_\_\_\_\_ None  
 Location Map  
 \_\_\_\_\_ Sketch Map  
 \_\_\_\_\_ Building, Structure, and Object Record  
 \_\_\_\_\_ Archaeological Record  
 \_\_\_\_\_ District Record  
 Linear Resource Record  
 \_\_\_\_\_ Milling Station Record  
 \_\_\_\_\_ Rock Art Record  
 \_\_\_\_\_ Artifact Record  
 \_\_\_\_\_ Photograph Record  
 \_\_\_\_\_ Continuation Sheet  
 \_\_\_\_\_ Other (List):

Page 1 of 1

Resource Name or #: (Assigned by recorder) Forest Service #05-01-53-260

L1. **Historic and/or Common Name:** Southern California Edison Hughes Lake 12kV Distribution Circuit

L2 a. **Portion Described:**  Entire Resource  Segment  Point Observation **Designation:** \_\_\_\_\_

b. **Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.)

An approximately 19 mile segment of the SCE Lake Hughes 12kV Distribution Circuit that is located in the Angeles National Forest (ANF), Los Angeles County. From the northwest to the southeast, the line extends from the USGS 7.5' Burnt Peak Quad: T7N, R16W, Sec 9, 10, 11, 12, 13; T7N, R15W, 18. The line continues onto the Lake Hughes Quad: T7N, R15W, Sec 17, 16, 21, 22, 23, 26, 25; T7N, R14W, Sec 30; T7N, R15W, Sec 27, 34, 33, 32, PB 41; T6N, R14W, Sec 5, 6, 7. The line extends a short distance onto the Green Valley Quad: T6N, R15W, Sec 12; T6N, R14W, Sec 7, and another short segment exists on the Sleepy Valley Quad: T6N, R14W, Sec 14.

L3. **Description:** (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

The wooden poles along the Lake Hughes 12kV Distribution Circuit were constructed, modified, and lengthened at various dates from ca. 1920s to the 1990s, and were used to extend services in response to increased demand in the greater community of Lake Hughes. The circuit is constructed of wooden poles and cross arms with metal braces, insulator brackets, and pins, and ceramic insulators; and most have been modified, upgraded, or replaced over the years as maintenance required.

L4. **Dimensions:** (In feet for historic features and meters for prehistoric features)

a. **Top Width** 10"

b. **Bottom Width** 10"

c. **Height or Depth** unknown

d. **Length of Segment** 19 miles

L5. **Associated Resources:** none

L4e. **Sketch of Cross-Section** (include scale)

Facing: \_\_\_\_\_

L6. **Setting:** (Describe natural features, landscape characteristics, slope, etc., as appropriate.): This portion of the line within the ANF extends along the San Andreas Rift Zone, in Pine Canyon, and extends south through the northern area of Elizabeth Lake Canyon, and within a portion of San Francisquito Canyon. The lines are primarily in the canyon bottoms, that are surrounded by moderate to fairly steep sided slopes. Vegetation consists of mixed chaparral, as well as riparian areas.

L7. **Integrity Considerations:** The line consists of wooden poles that have been replaced with wooden poles of the same or similar dimensions. However, hardware has been modified to accommodate modern needs.

L8a. **Photograph, Map or Drawing**

L8b. **Description of Photo, Map, or Drawing** (View, scale, etc.): see Primary Record

L9. **Remarks:**

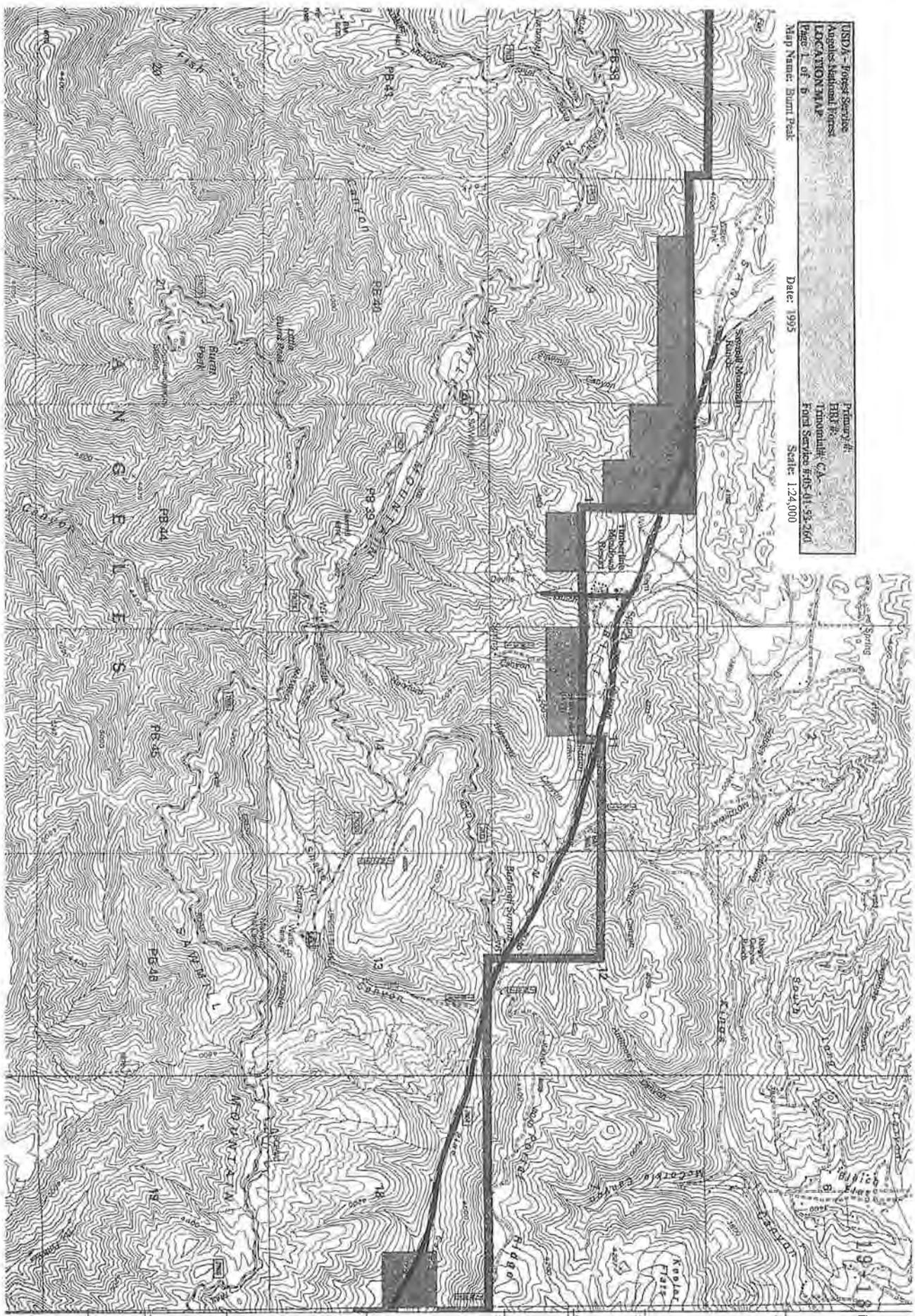
L10. **Form Prepared by:** (Name, affiliation, and address)

Gwen Romani, Compass Rose  
Archaeological, Inc., 6206 Peach Ave,  
Van Nuys, CA 91411.

L11. **Date:** 3/25/03

USDA - Forest Service  
 Angeles National Forest  
 LOCATION MAP  
 Page 1 of 6  
 Map Name: Burn Peak

Primary #1  
 ERT #:  
 Trinoak, CA  
 Ford Service #05-01-53-260  
 Date: 1995  
 Scale: 1:24,000



1971 69224



19-186924

USDA - Forest Service  
Angeles National Forest  
**LOCATION MAP**

Page 3 of 6

Map Name: Lake Hughes

Date: 1995

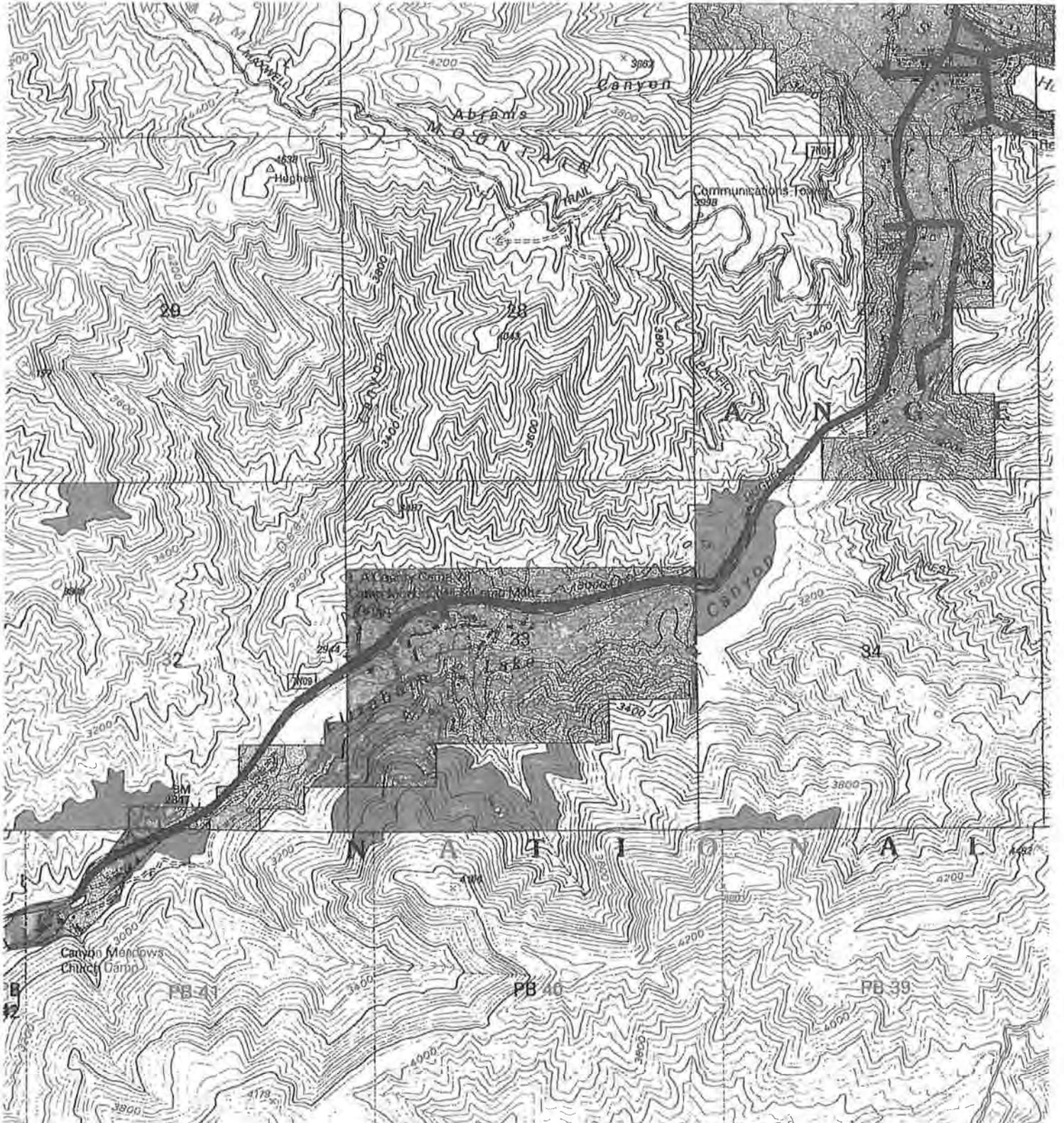
Primary #:

HRI #:

Trinomial#: CA- -

Forst Service #:05-01-53-260

Scale: 1:24,000



19-186924

USDA - Forest Service  
Angeles National Forest  
**LOCATION MAP**

Page 4 of 6

Map Name: Lake Hughes

Date: 1995

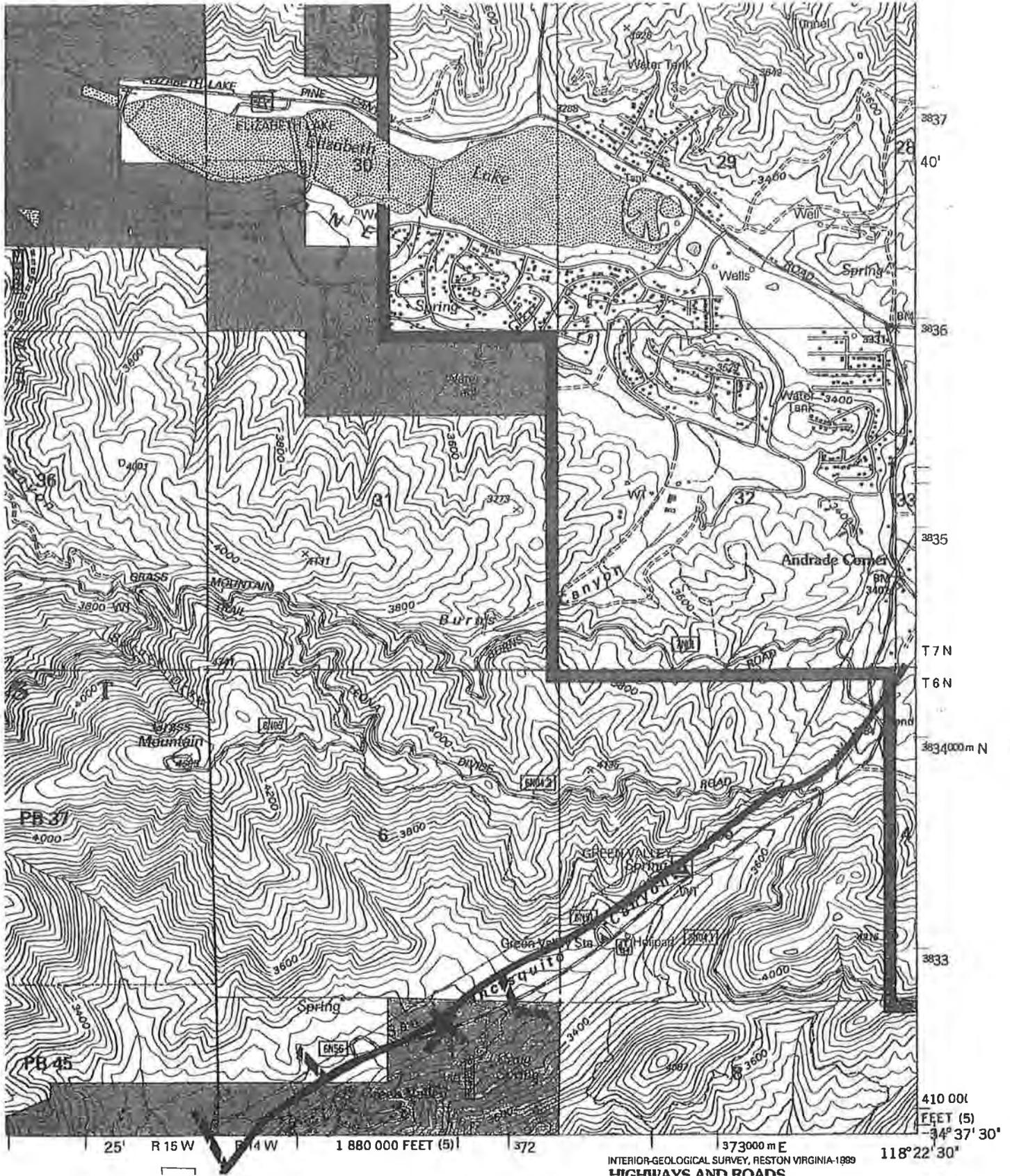
Primary #:

HRI #:

Trinomial#: CA- -

Forst Service #:05-01-53-260

Scale: 1:24,000



3837  
40'  
3836  
3835  
T 7 N  
T 6 N  
3834000m N  
3833  
410 00'  
FEET (5)  
34° 37' 30"

25' R 15 W R 14 W 1 880 000 FEET (5) 372

373000 m E  
INTERIOR-GEOLOGICAL SURVEY, RESTON VIRGINIA-1989  
HIGHWAYS AND ROADS  
118° 22' 30"

19-186924

USDA - Forest Service  
Angeles National Forest  
LOCATION MAP

Page 5 of 6

Map Name: Green Valley

Date: 1995

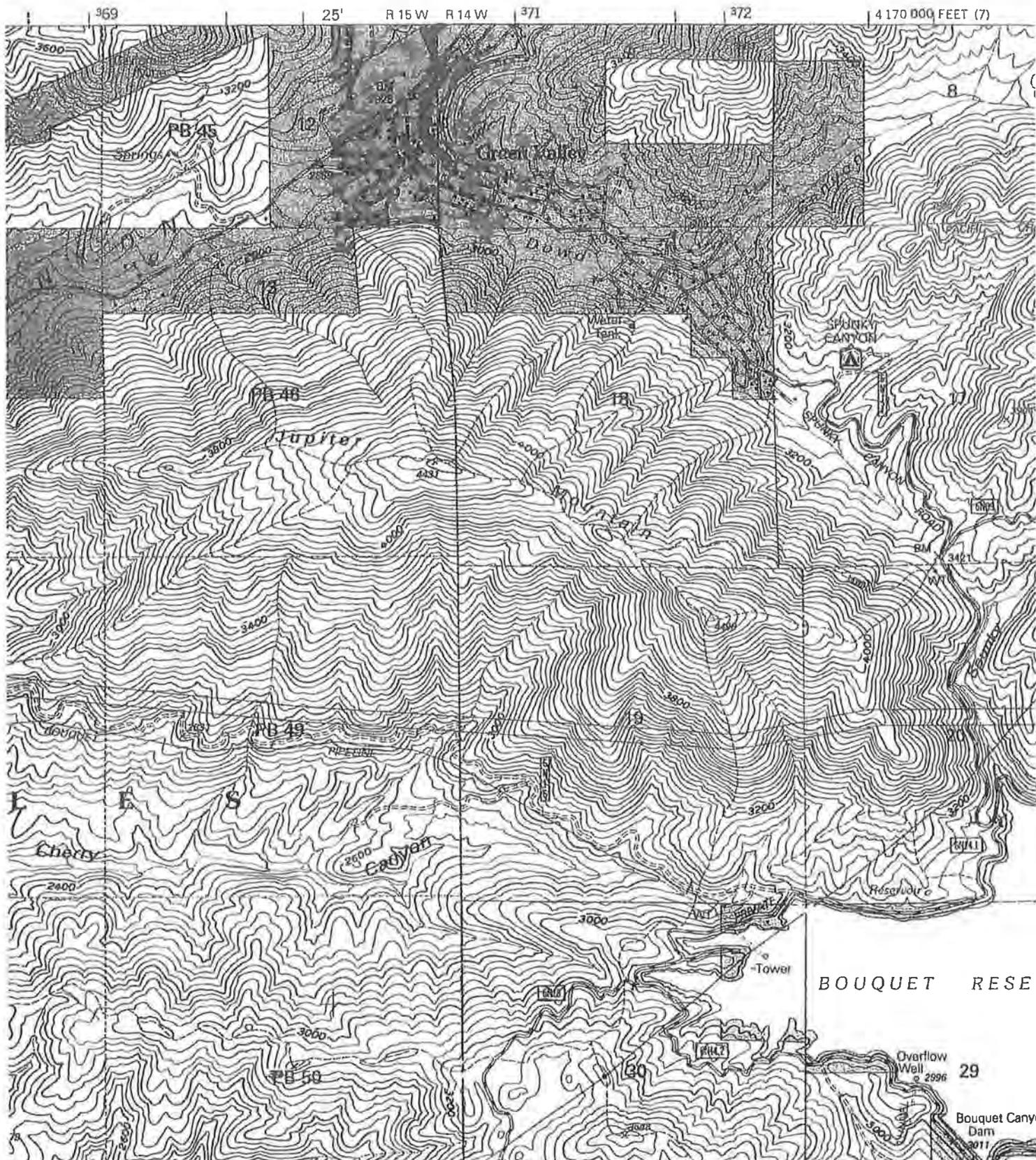
Primary #:

HRI #:

Trinomial#: CA- -

Forst Service #:05-01-53-260

Scale: 1:24,000



19-186924

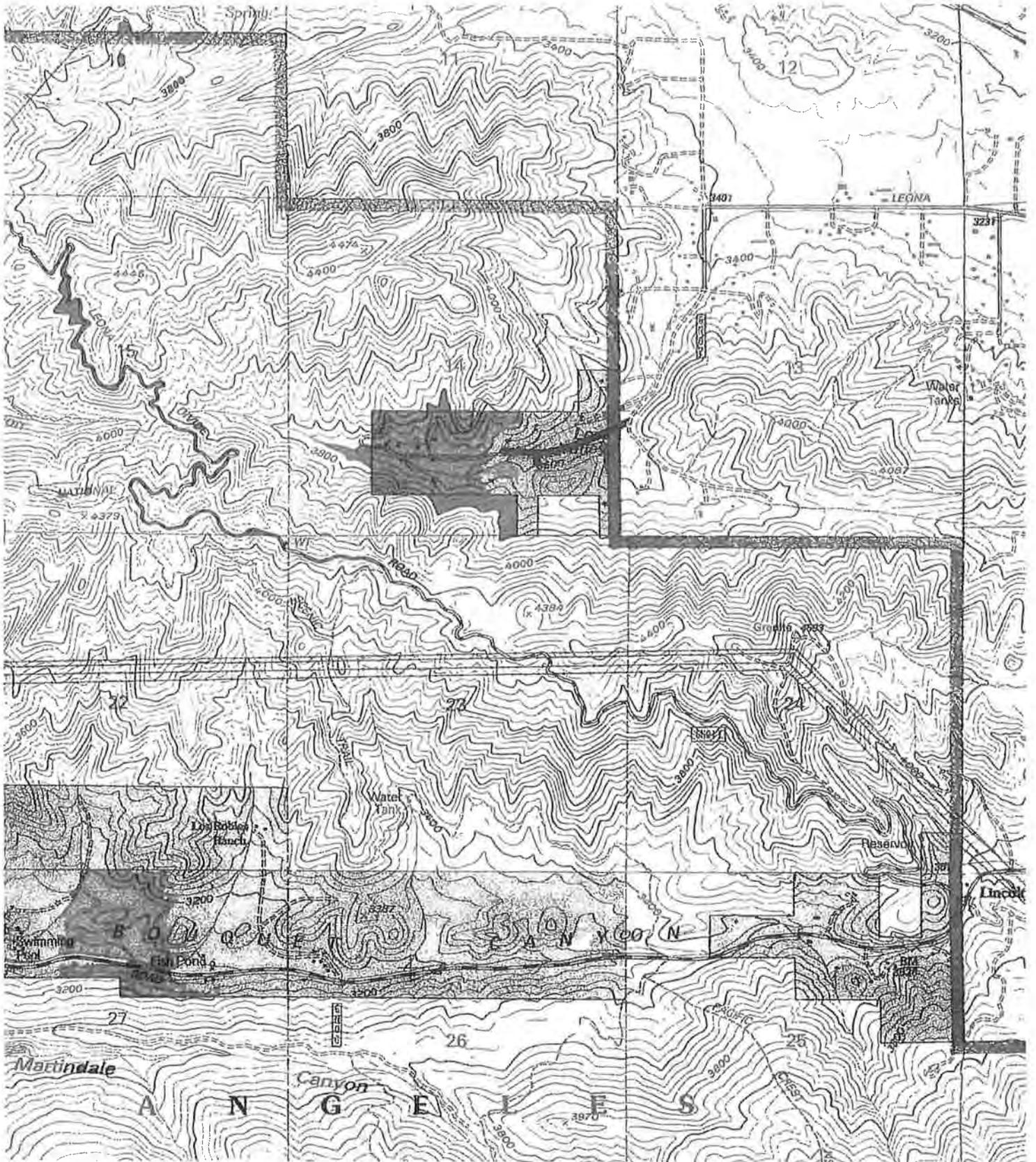
USDA - Forest Service  
Angeles National Forest  
LOCATION MAP  
Page 6 of 6

Primary #:  
HRI #:  
Trinomial#: CA- -  
Forest Service #:05-01-53-260

Map Name: Sleepy Valley

Date: 1995

Scale: 1:24,000



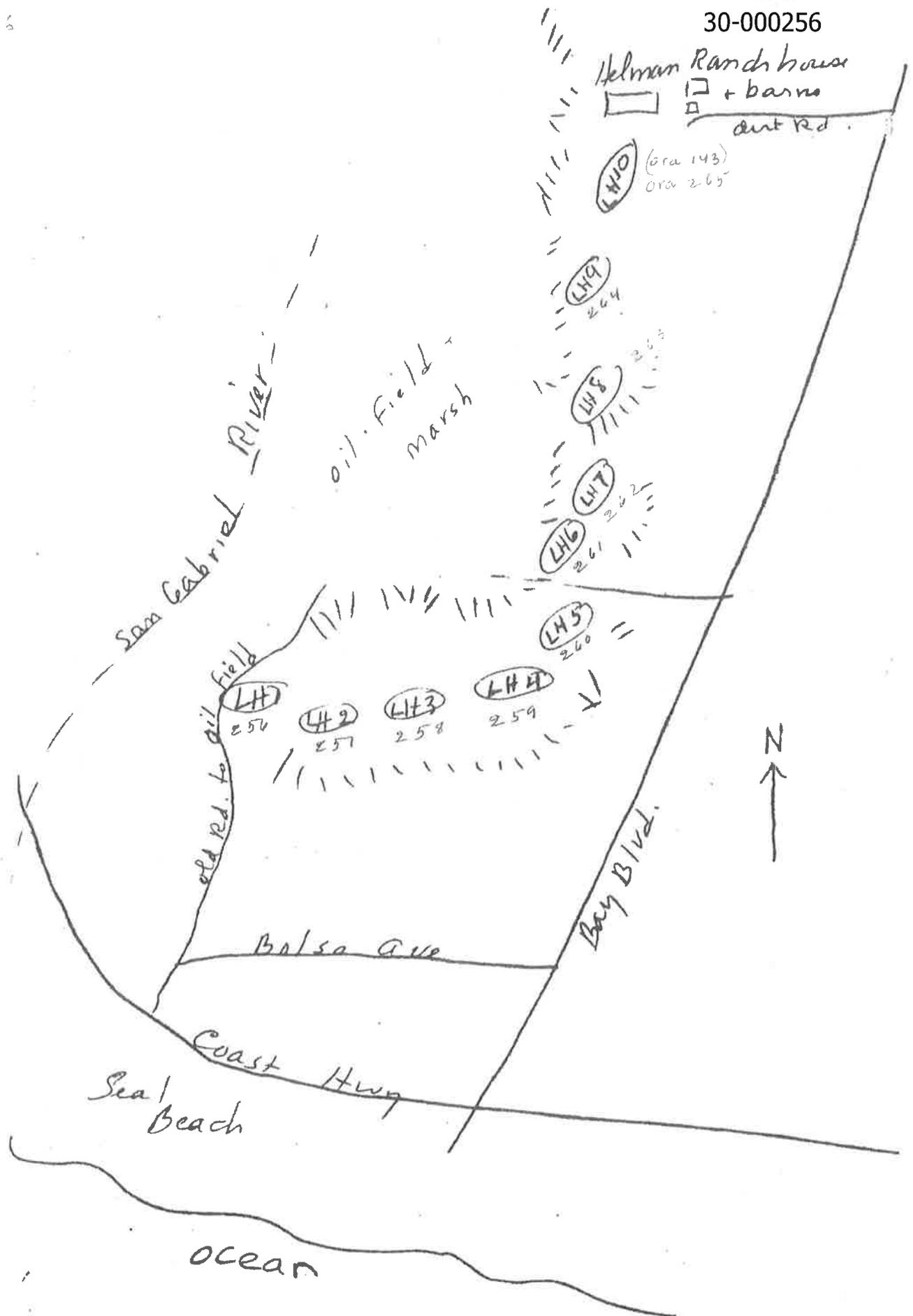
ARCHAEOLOGICAL SITE SURVEY RECORD

Landing Hill #1

- 1. Site Ora 256 2. Map USGS Seal Beach 3. County Orange
- 4. Twp. 5 S Range 12 W; NE 1/4 of SE 1/4 of Sec. 11
- 5. Location Landing Hill rises above coastal plain & tidal flats of Alamitos & Anaheim bays, just inside Orange County line. A boot shaped knoll, with maximum elevation 70'. Located west of Bay Blvd. and inland side of coast highway, south of the I.W. Helman Ranch buildings.
- 6. On contour elevation 50'
- 7. Previous designations for site Lee J. Goldin
- 8. Owner Biltmore Hoover, Inc. 9. Address \_\_\_\_\_
- 10. Previous owners, dates Rancho Los Alamitos, part of Helman Ranch. (not verified)
- 11. Present tenant Marina Shores Homes, Seal Beach
- 12. Attitude toward excavation ok. prior to development (1955)
- 13. Description of site Westernmost site on hill, just west of Landing Hill #2. Sites adjacent to supplies of shellfish and wild plant products. Site marked by dark earth and shells.
- 14. Area 200' x 300' 15. Depth 12" 16. Height \_\_\_\_\_
- 17. Vegetation grassland, oaks at Los Altos 18. Nearest water San Gabriel River
- 19. Soil of site dark, low rock content 20. Surrounding soil type light tan
- 21. Previous excavation All LH sites pothunted for years. Cote, Irwin, Strandt, Henninger, Bullock, et al.
- 22. Cultivation yes 23. Erosion no
- 24. Buildings, roads, etc. site partly destroyed by cut for road leading to oil field.
- 25. Possibility of destruction Site destroyed around 1958, housing development.
- 26. House pits \_\_\_\_\_
- 27. Other features \_\_\_\_\_
- 28. Burials \_\_\_\_\_
- 29. Artifacts No surface artifacts at LH #1. On other LH sites finds of chips and cores of Franciscan chert ' quartzite, and artifact assemblage suggests an early occupation, as well as a seasonal campsite.
- 30. Remarks Primary meat source: chiones & pectens, little evidence of use of fish., birds, or mammals. Milling stones indicate use of seeds & acorns.
- 31. Published references "Some Archaeological Sites on Landing Hill, Seal Beach" by J. Peter Redwine, 1958. MS, U.S.C.
- 32. Accession No. \_\_\_\_\_ 33. Sketch map see reverse.
- 34. Date 4/30, 1969 35. Recorded by McKinney 36. Photos \_\_\_\_\_
- 37. Informant Sites 1-10 recorded from Redwine report. see #31 above.

Orn-256

30-000256



SEAL BEACH — LANDING HILL SITE MAP

ADDENDUM TO THE SITE RECORD FORM DATA ON SITE: CA-Ora-256

This site was re-surveyed by the writer and his team during the summer of 1996. Based on careful surface inspection and by the laying out of 4 transects across the site wherein some 24 1 x 1 m surface grid frames were quantified (with all shell fragments, munsell soil colors and any artifacts noted), this site's actual size has been revised at 9,500 m<sup>2</sup>. More information can be found in the site survey report listed below.

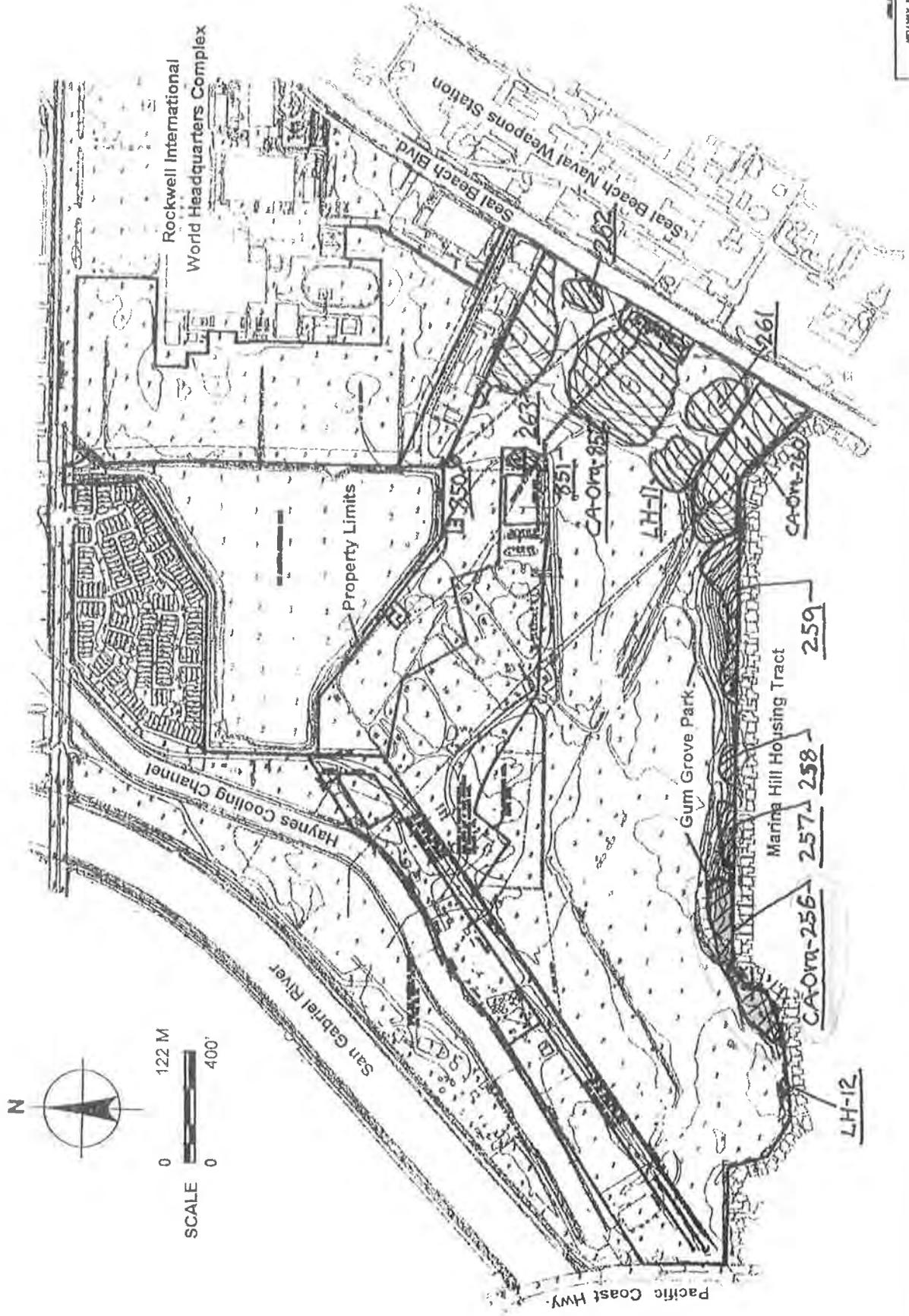
Stickel, E. Gary

1996 An Archaeological Site Survey on the Hellman Ranch, City of Seal Beach, California. Report on file with the City and with the UCLA South Central Coastal Information Center.

Figure 29. The Hellman Ranch Property Sites

30-000256

HELLMAN RANCH  
TOPOGRAPHIC MAP  
AND SURROUNDING LOTS



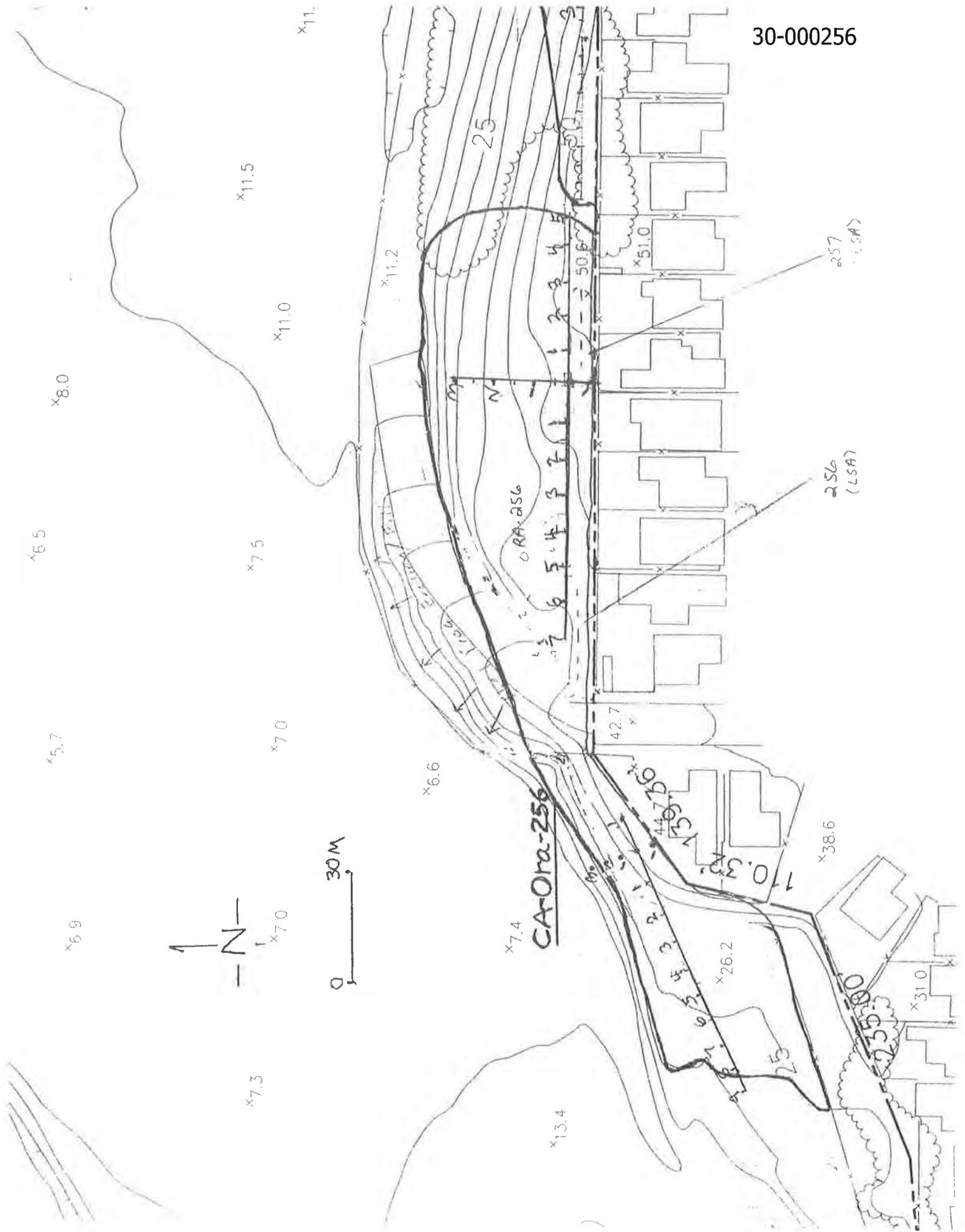


Figure 1: Project Area in Seal Beach

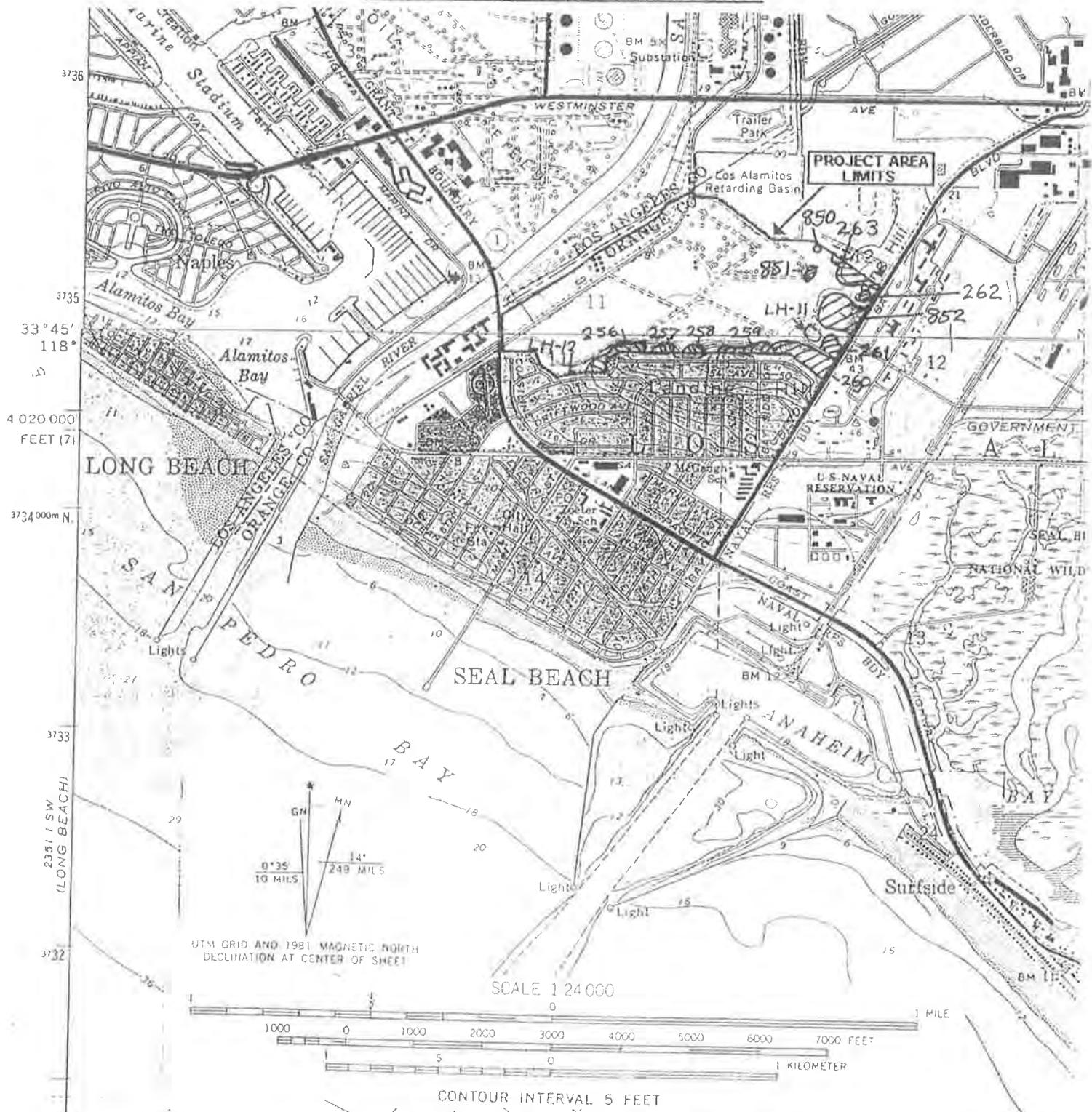
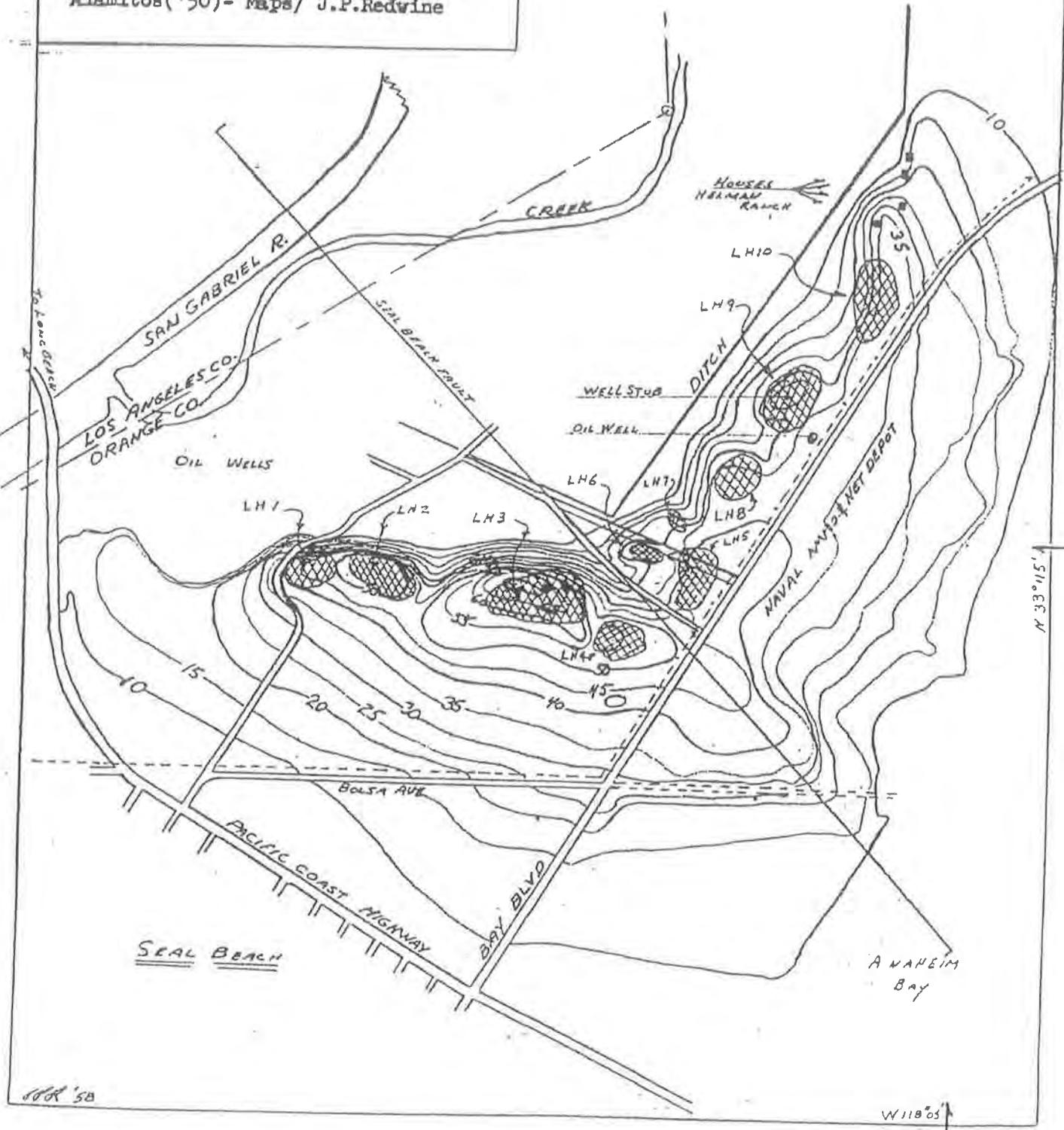


Figure is a composite of the Seal Beach 7.5 min. USGS Quad (1965, photorevised 1981) and the Los Alamos 7.5 min. USGS Quad (1964, photorevised 1981).

MAP I.  
 "Landing Hill"  
 Seal Beach, California  
 Archaeological Sites: LH-1,2,3,4,5,  
 6,7,8,9,10.  
 Contour : 5' intervals above M sea  
 level.  
 Scale : 1"=1000'  
 Adapted from USGS - Seal Beach & Los  
 Alamitos ('50) - Maps/ J.P.Redwine

30-000256



Redwine (1958)

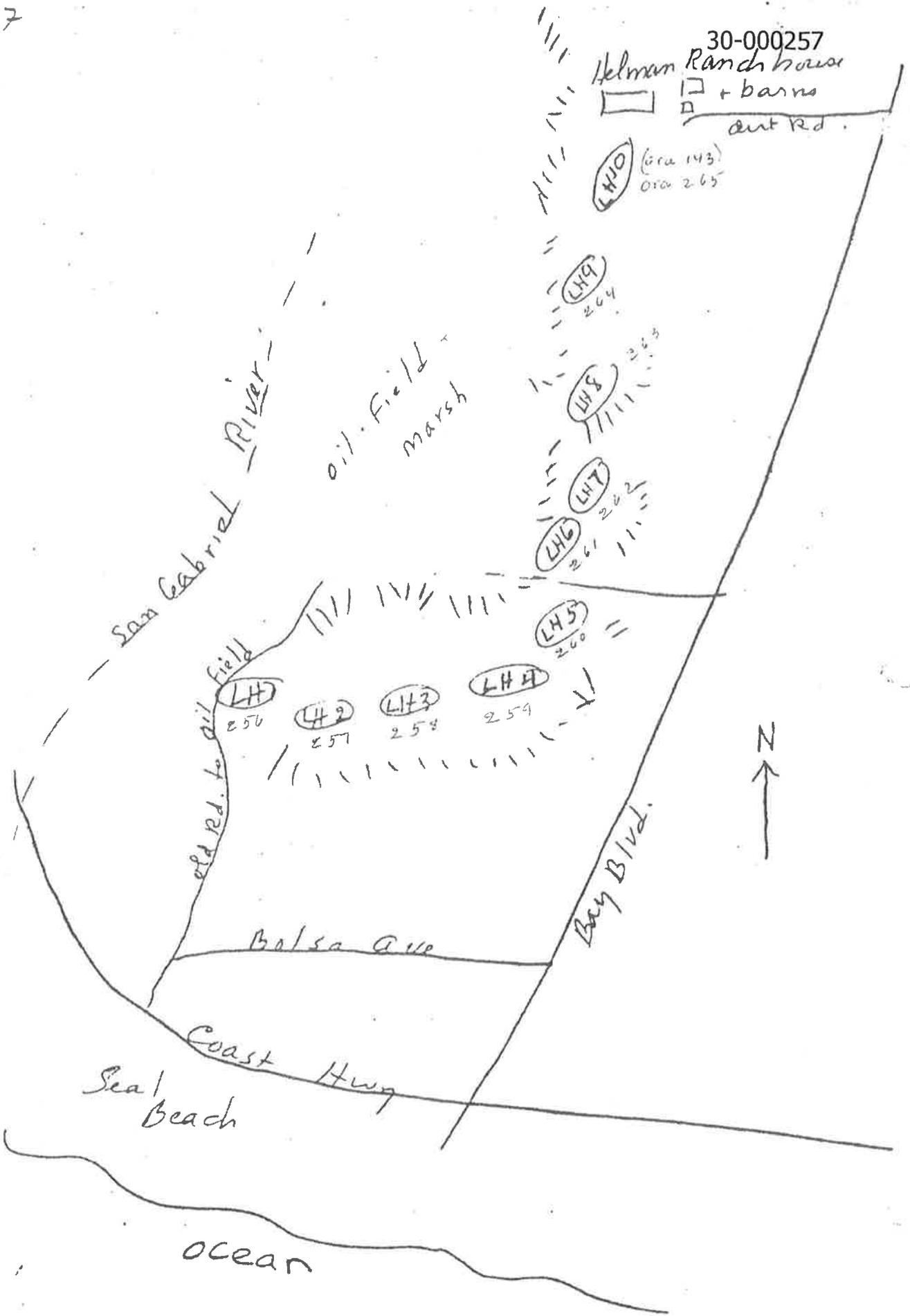


ARCHAEOLOGICAL SITE SURVEY RECORD

Landing Hill #2

- 1. Site Ora 257 2. Map USGS Seal Beach Quad. 3. County Orange
- 4. Twp. 5S Range 12 W; NE 1/4 of SE 1/4 of Sec. 11
- 5. Location Second of Landing Hill sites on hill north of Seal Beach, north of Coast Highway, west of Bay Blvd., south of Alamitos slough.
- 6. On contour elevation 50'
- 7. Previous designations for site \_\_\_\_\_  
Lee J. Goldin
- 8. Owner Biltmore Hoover Inc. 9. Address \_\_\_\_\_
- 10. Previous owners, dates Rancho Los Alamitos, Helman Ranch
- 11. Present tenant Marina Shores homes, Seal Beach
- 12. Attitude toward excavation ok
- 13. Description of site site begins 100' east of Landing Hill #1, some of surface appears to have been scraped off in past.
- 14. Area 220' x 350' 15. Depth shallow 16. Height \_\_\_\_\_
- 17. Vegetation probably oaks, grasses 18. Nearest water San Gabriel River
- 19. Soil of site dark 20. Surrounding soil type light tan
- 21. Previous excavation pothunted
- 22. Cultivation yes 23. Erosion no
- 24. Buildings, roads, etc. eucalyptus planted, no roads or buildings, 1958
- 25. Possibility of destruction site destroyed by housing development, 1958
- 26. House pits \_\_\_\_\_
- 27. Other features \_\_\_\_\_
- 28. Burials \_\_\_\_\_
- 29. Artifacts surface artifacts: two hand stones, two milling stone fragments  
two small worked fragments.
- 30. Remarks \_\_\_\_\_
- 31. Published references "Some Archaeological Sites on Landing Hill", Redwine, 1958
- 32. Accession No. \_\_\_\_\_ 33. Sketch map see reverse Landing Hill #1  
McKinney for
- 34. Date 4.30, 69 35. Recorded by PCAS 36. Photos \_\_\_\_\_
- 37. Informant Redwine Report, see #31 above.

Ora-257



LANDING WILL BE STAYED

ADDENDUM TO THE SITE RECORD FORM DATA ON SITE: CA-Ora-257

This site was re-surveyed by the writer and his team during the summer of 1996. Based on careful surface inspection and by the laying out of 3 transects across the site wherein some 17 1 x 1 m surface grid frames were quantified (with all shell fragments, munsell soil colors and any artifacts noted), this site's actual size has been revised at 2,570 m<sup>2</sup>. More information can be found in the site survey report listed below.

Stickel, E. Gary

1996 An Archaeological Site Survey on the Hellman Ranch, City of Seal Beach, California. Report on file with the City and with the UCLA South Central Coastal Information Center.

Figure 29. The Hellman Ranch Property Sites

30-000257

HELLMAN RANCH  
TOPOGRAPHIC MAP  
AND SURROUNDING USES

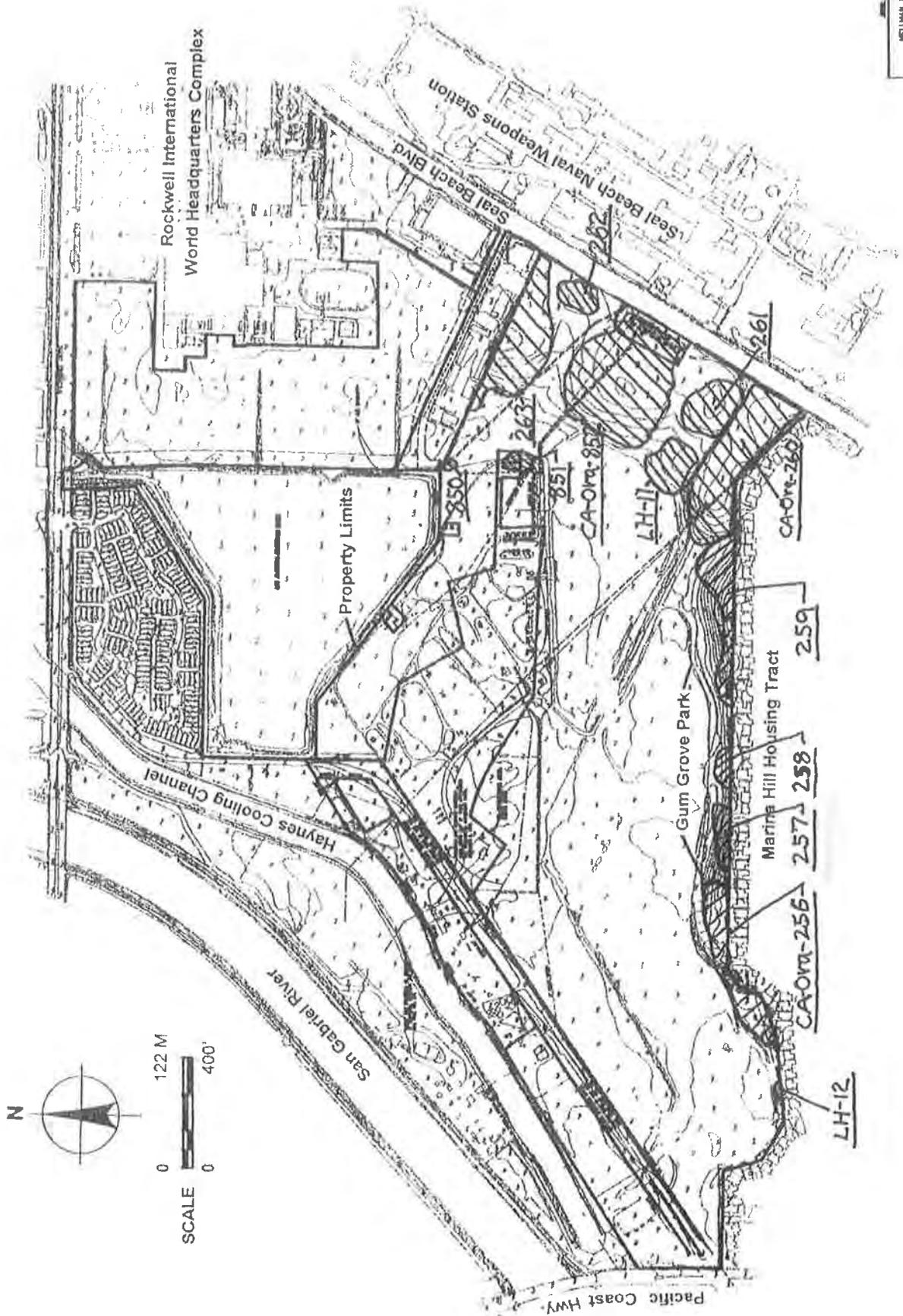




Figure 1: Project Area in Seal Beach

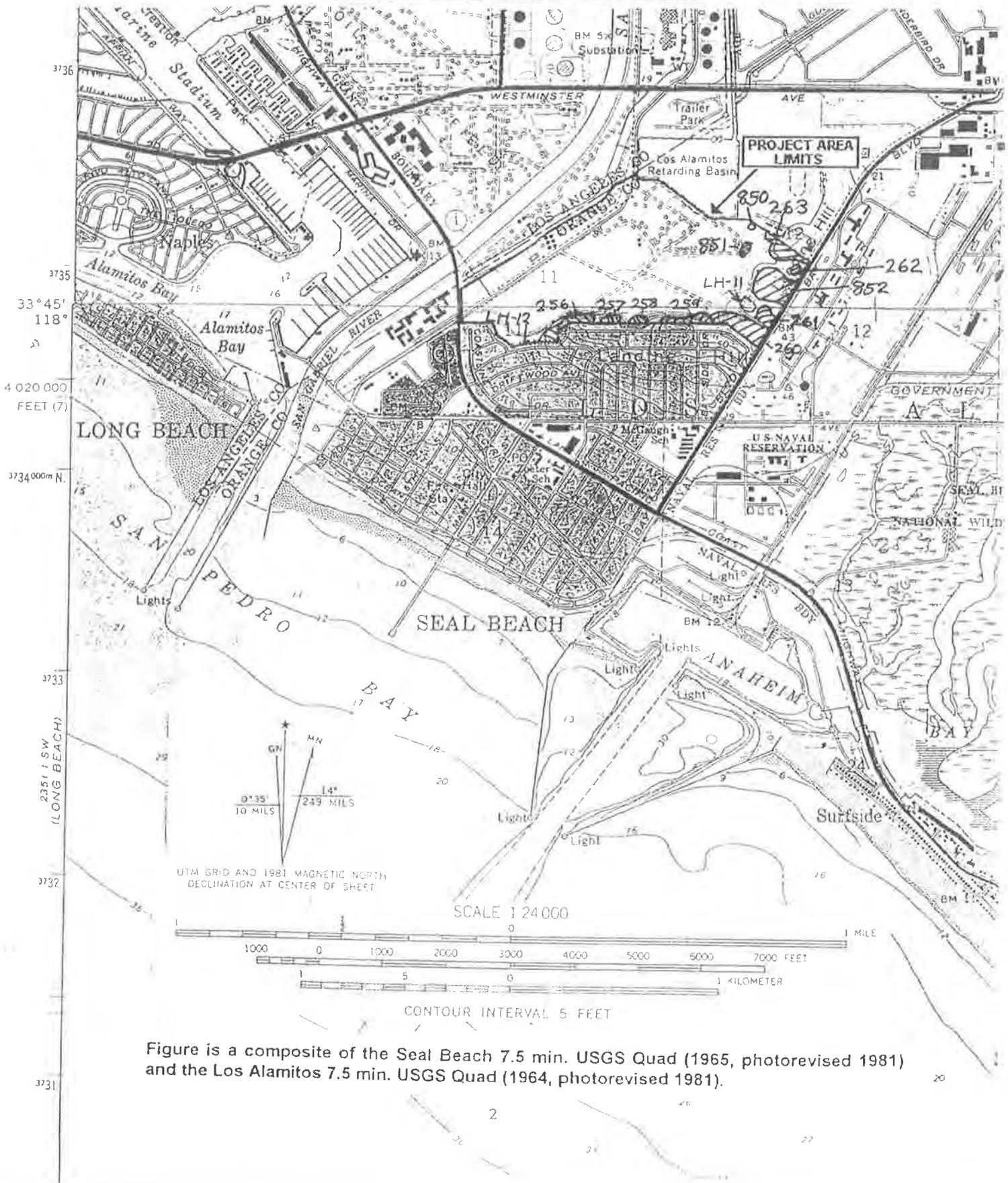
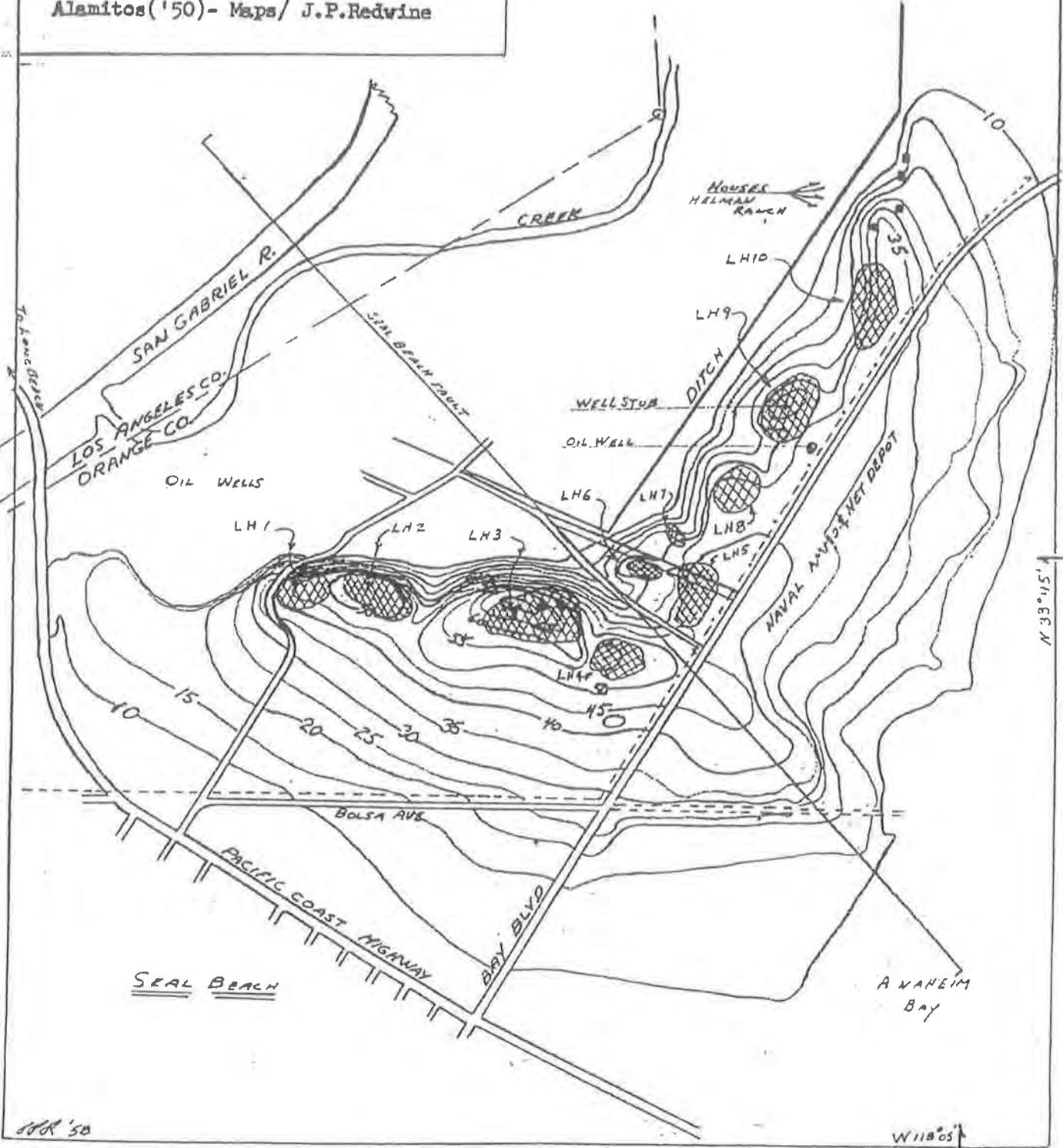


Figure is a composite of the Seal Beach 7.5 min. USGS Quad (1965, photorevised 1981) and the Los Alamitos 7.5 min. USGS Quad (1964, photorevised 1981).

**MAP I.**  
**• Landing Hill •**  
**Seal Beach, California**  
 Archaeological Sites: LH-1, 2, 3, 4, 5,  
 6, 7, 8, 9, 10.  
 Contour : 5' intervals above M sea  
 level.  
 Scale : 1"=1000'

Adapted from USGS -Seal Beach&Los  
 Alamitos ('50)- Maps/ J.P.Redwine





State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION <b>PRIMARY RECORD</b>	Primary # _____ HRI# _____ Trinomial _____ NRHP Status Code _____
Other Listings _____ Review Code _____	Reviewer _____ Date _____

Page 1 of 5 \*Resource Name or #: (Assigned by recorder) LH-12 (Landing Hill #12 site)

P1. Other Identifier: n.a.

\*P2. Location:  Not for Publication  Unrestricted \*a. County Orange County

and (P2b and P2c or P2d. Attach a Location Map as necessary.) San

\*b. USGS 7.5' Quad Seal Beach Date 1981 T5S; R12W NW ¼ of SE ¼ of Sec 11; Bernadir B.M.

c. Address Hellman Properties (Ranch), P.O. Box 2398 City Seal Beach Zip CA 90740

d. UTM: (Give more than one for large and/or linear resources) Zone 11; 397960 mE/ 3734650 mN

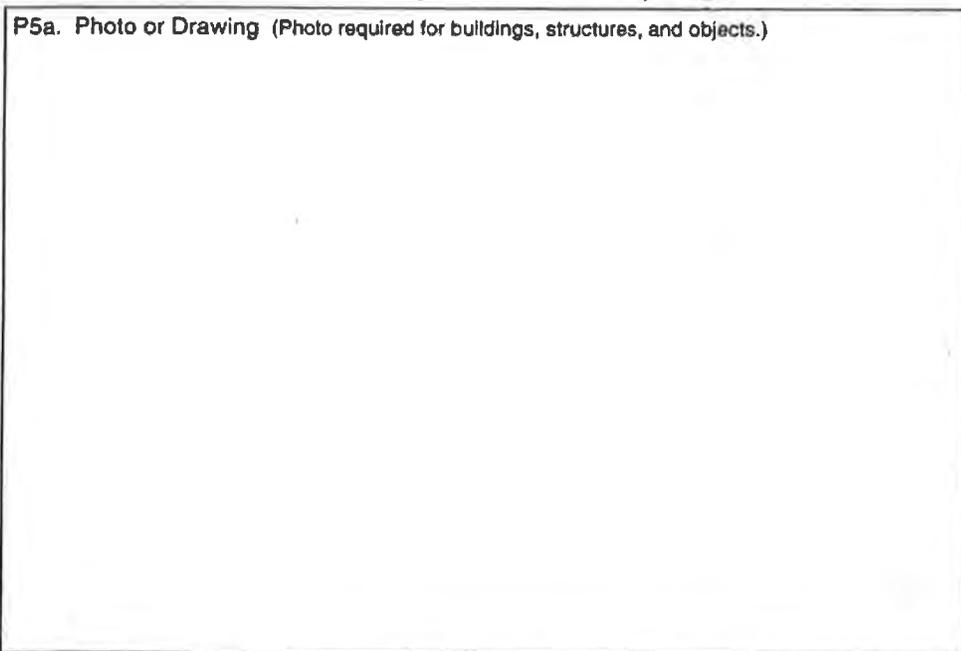
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Site is located in the southwestern sector of the 183 acre Hellman Ranch of Seal Beach. The site rests on about the 20' contour line of elevation.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Site LH-12 is a shell deposit located in the southwestern sector of the property, just inside the perimeter fence of the Hellman Ranch and adjacent to the neighboring houses. This previously undiscovered site extends WNW/ESE along a narrow edge of the bluff of Landing Hill at that point. The site extends in that direction for about 30 meters and its width (N/S) varies from 1 to 4 meters. We determined its size to be 66.5 m<sup>2</sup>. The site is shaded by pine, eucalyptus and palm trees that overhang the chain link fence of the houses south of it. The site's soil is mainly covered by ice plants with some wild oats interspersed. A large castor bean plant area is located just east of the site and down a gully-like depression. Because this site remnant was so narrow, a N/S transect was not placed across it, but only a true magnetic E/W one. Shell fragment counts in the transect frid frames varied from 1 to 30 sf/m<sup>2</sup>. A fair variety of species were noted for this small area. The species include Ostrea spp., Chione spp., Pecten spp., Donax spp., Tivela spp. and Crepidula spp. The soil color of the deposit was exclusively 10 YR 5/3 "brown." The vast majority of this site's original area has been destroyed by the housing tract to the south. Other disturbances noted were what appeared to (see con. sheet).

\*P3b. Resource Attributes: (List attributes and codes) AP15 (shell midden deposit)

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

<p>P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)</p> 	<p>P5b. Description of Photo: (View, date, accession #) _____</p> <p>_____</p> <p>*P6. Date Constructed/Age and Sources: <input type="checkbox"/> Historic <input checked="" type="checkbox"/> Prehistoric <input type="checkbox"/> Both</p> <p>_____</p> <p>*P7. Owner and Address: <u>Hellman Ranch Properties, P.O. Box 2398 Seal Beach, CA 90740</u></p> <p>*P8. Recorded by: (Name, affiliation, and address) <u>James Flaherty and Gary Stickel</u></p> <p>_____</p> <p>*P9. Date Recorded: <u>June 26, 1996</u></p> <p>*P10. Survey Type: (Describe) <u>Intensive site survey</u></p> <p>_____</p>
--	---

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") See site survey report (Stickel, E.G. 1996; An Archaeological Site Survey of Hellman Ranch; report on file at SCCIC).

\*Attachments: NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  Artifact Record  Photograph Record  Other (List) \_\_\_\_\_

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION

Primary # \_\_\_\_\_

HRI# \_\_\_\_\_

**CONTINUATION SHEET**

Trinomial \_\_\_\_\_

Page 2 of 5\*Resource Name or # (Assigned by recorder) LH-12 (Landing Hill #12 site)\*Recorded by James Flaherty and Gary Stickel \*Date June 26, 1996  Continuation  Update

(continued from page 1) be two 50 x 50 cm STP-like excavated pits. These were located on either end of the site property separated by 24 meters. These appear to be dug by professionals but there is no record in the literature that any formal excavation was conducted by any of the past investigators of Hellman Ranch.

\*Note site given designation of "LH-12" to continue the initial site designations given to the Landing Hill Sites by Peter Redwine in 1956.

Redwine, Peter

1958 Some Archaeological Sites on Landing Hill. Manuscript on file at the City of Seal Beach.

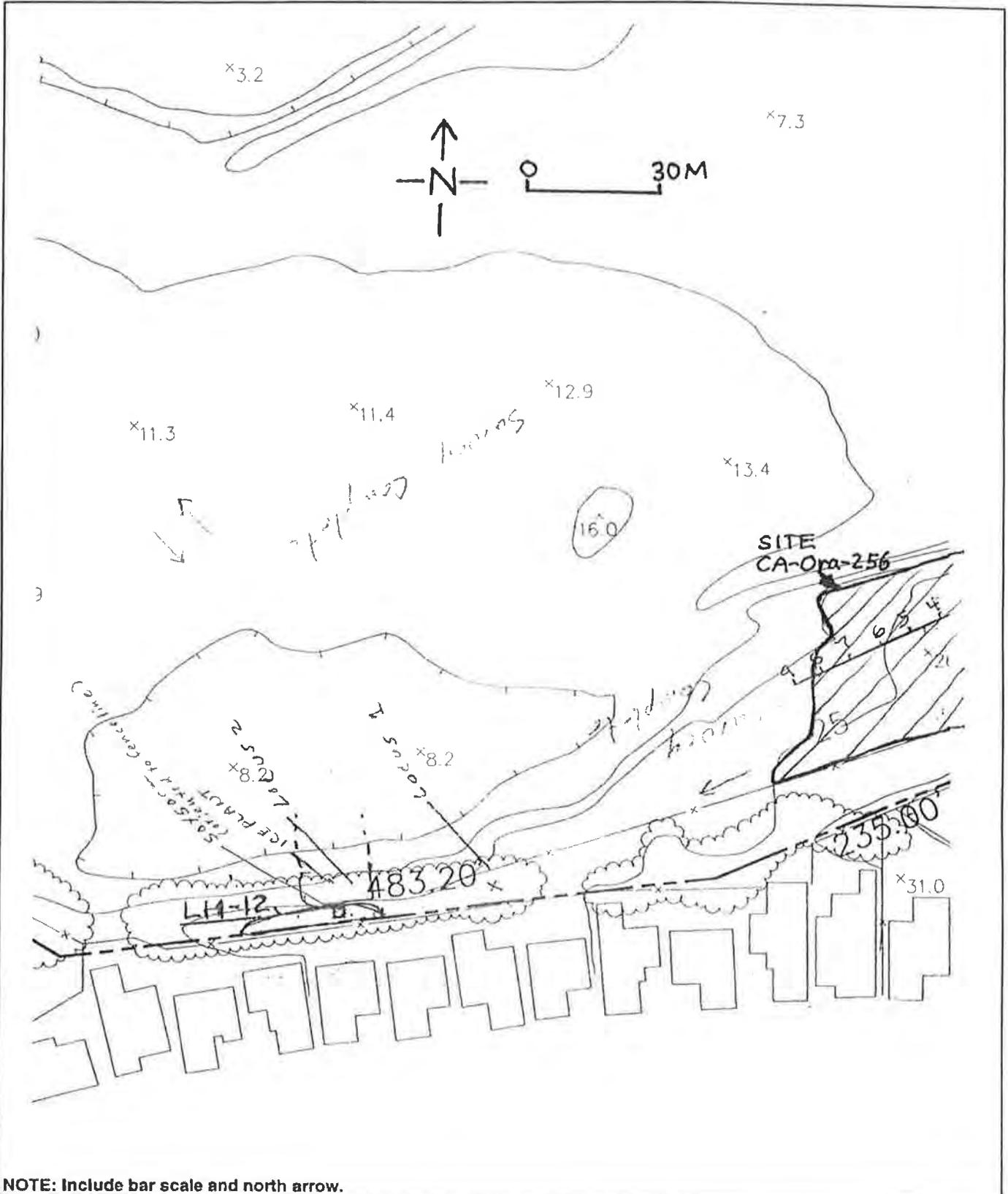
SKETCH MAP

Page 5 of 5

\*Resource Name or # (Assigned by recorder) LH-12 (Landing Hill #12 site)

\*Drawn By: James Flaherty and Gary Stickel

\*Date: July, 1996



NOTE: Include bar scale and north arrow.

Figure 1: Project Area in Seal Beach

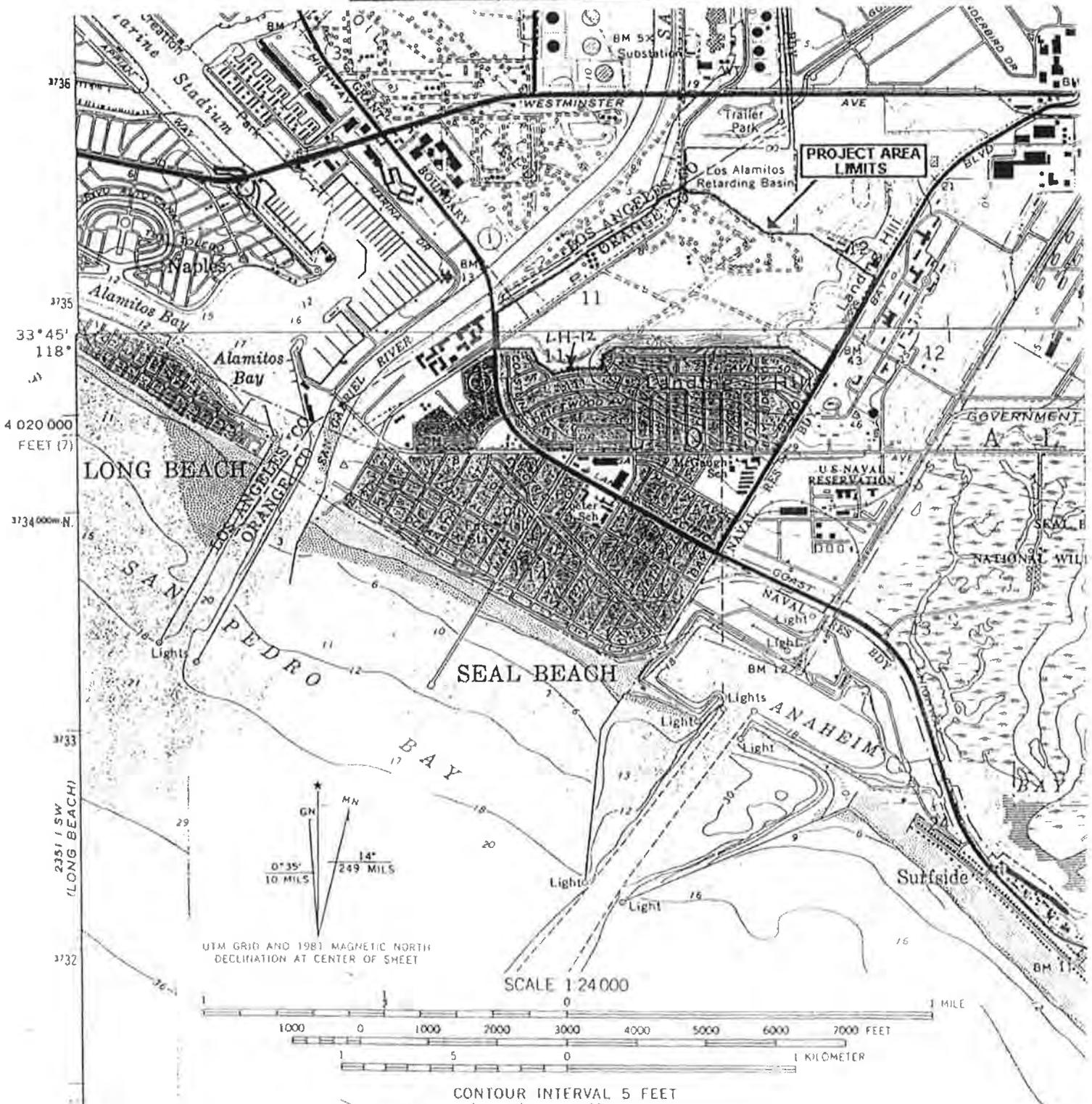


Figure is a composite of the Seal Beach 7.5 min. USGS Quad (1965, photorevised 1981) and the Los Alamitos 7.5 min. USGS Quad (1964, photorevised 1981).

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION <b>ARCHAEOLOGICAL SITE RECORD</b>	Primary # _____ Trinomial _____
---	------------------------------------

Page 3 of 5 \*Resource Name or # (Assigned by recorder) LH-12 (Landing Hill #12 site)

\*A1. Dimensions: a. Length 30m E/W( ) x b. Width 1-4m N/S( )  
 Method of Measurement:  Paced  Taped  Visual estimate  Other: \_\_\_\_\_  
 Method of Determination (Check any that apply.):  Artifacts  Features  Soil  Vegetation  Topography  
 Cut bank  Animal burrow  Excavation  Property boundary  Other (Explain): shell midden deposit  
 Reliability of Determination:  High  Medium  Low Explain: Ground visibility good.

Limitations (Check any that apply):  Restricted access  Paved/built over  Site limits incompletely defined  
 Disturbances  Vegetation  Other (Explain): Most of the site located to the south was destroyed.

A2. Depth: \_\_\_\_\_  None  Unknown Method of Determination: \_\_\_\_\_

\*A3. Human Remains:  Present  Absent  Possible  Unknown (Explain): \_

\*A4. Features (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):  
  
 No features observed.

\*A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):  
  
 See description P3a., page 1.

\*A6. Were Specimens Collected?  No  Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

\*A7. Site Condition:  Good  Fair  Poor (Describe disturbances.):

\*A8. Nearest Water (Type, distance, and direction.): Hellman Ranch slough, located 75 m to the north.

\*A9. Elevation: Approximately on the 20-foot contour line.

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):  
Site rests on a former section of a marine terrace known as Landing Hill. Originally, site overlooked the meandering San Gabriel River Channel and wetlands.

A11. Historical Information:  
Virtually unavailable. Site is part of the Hellman Ranch.

\*A12. Age:  Prehistoric  Protohistoric  1542-1769  1769-1848  1848-1880  1880-1914  1914-1945  
 Post 1945  Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:  
Site is prehistoric but which period needs to be established by <sup>14</sup>C dating.

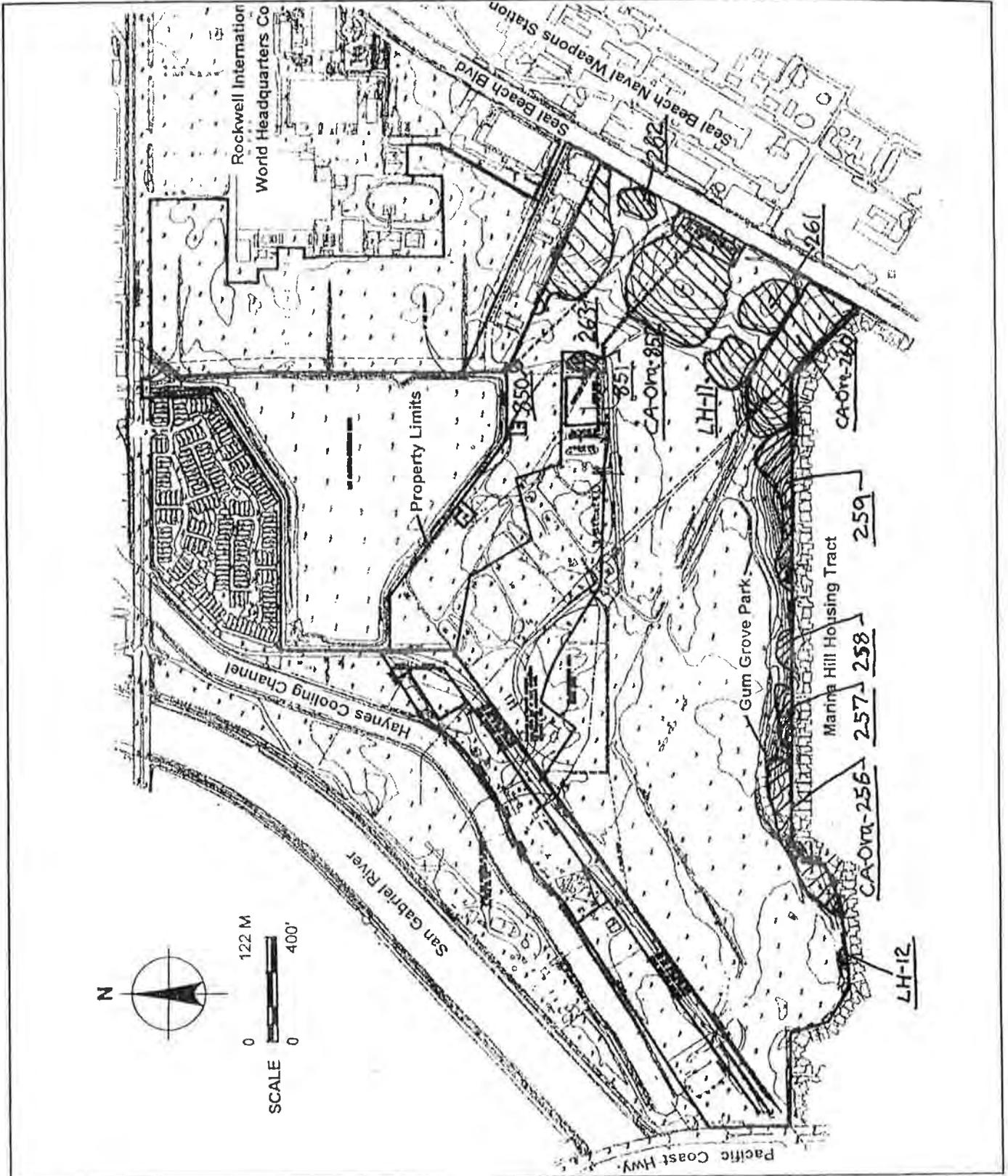
A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations):  
  
Site is a prehistoric shell midden and was part of a much larger site, which may have been related to the Puvunga complex of sites and therefore has important research potential.

A14. Remarks:  
See Dixon, 1972, Reviving Puvunga: An Archaeological Project at Rancho Los Alamitos. Masterkey, Vol. 46, No. 3, pp. 1-4.

A15. References (Documents, informants, maps, and other references):  
See site survey report; Stickel, E.G. 1996; An Archaeological Site Survey of Hellman Ranch; report on file at SCCIC).

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record): \_

Original Media/Negatives Kept at: n.a.  
 \*A17. Form Prepared by: James Flaherty Date: 12/17/96  
 Affiliation and Address: ERA, P.O Box 480074, Los Angeles, CA 90048



## APPENDIX C

# PROJECT AREA PHOTOGRAPHS



View to the northeast of the northern portion of the Synergy Site.



View to the east of the Synergy Site.



View to the south of the Synergy Site.



View to the southwest of the Synergy Site.



View to the east of the LCWA Site.



View to the south of the City Marketplace Marsh Site.

## **APPENDIX D**

### **DEPARTMENT OF PARKS AND RECREATION FORMS FOR LSA-LYC1501-S-1 AND LSA-LYC1501-S-2**

**(CONFIDENTIAL – NOT FOR PUBLIC DISTRIBUTION)**



State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
ARCHAEOLOGICAL SITE RECORD

Primary # \_\_\_\_\_  
HRI# \_\_\_\_\_  
Trinomial \_\_\_\_\_

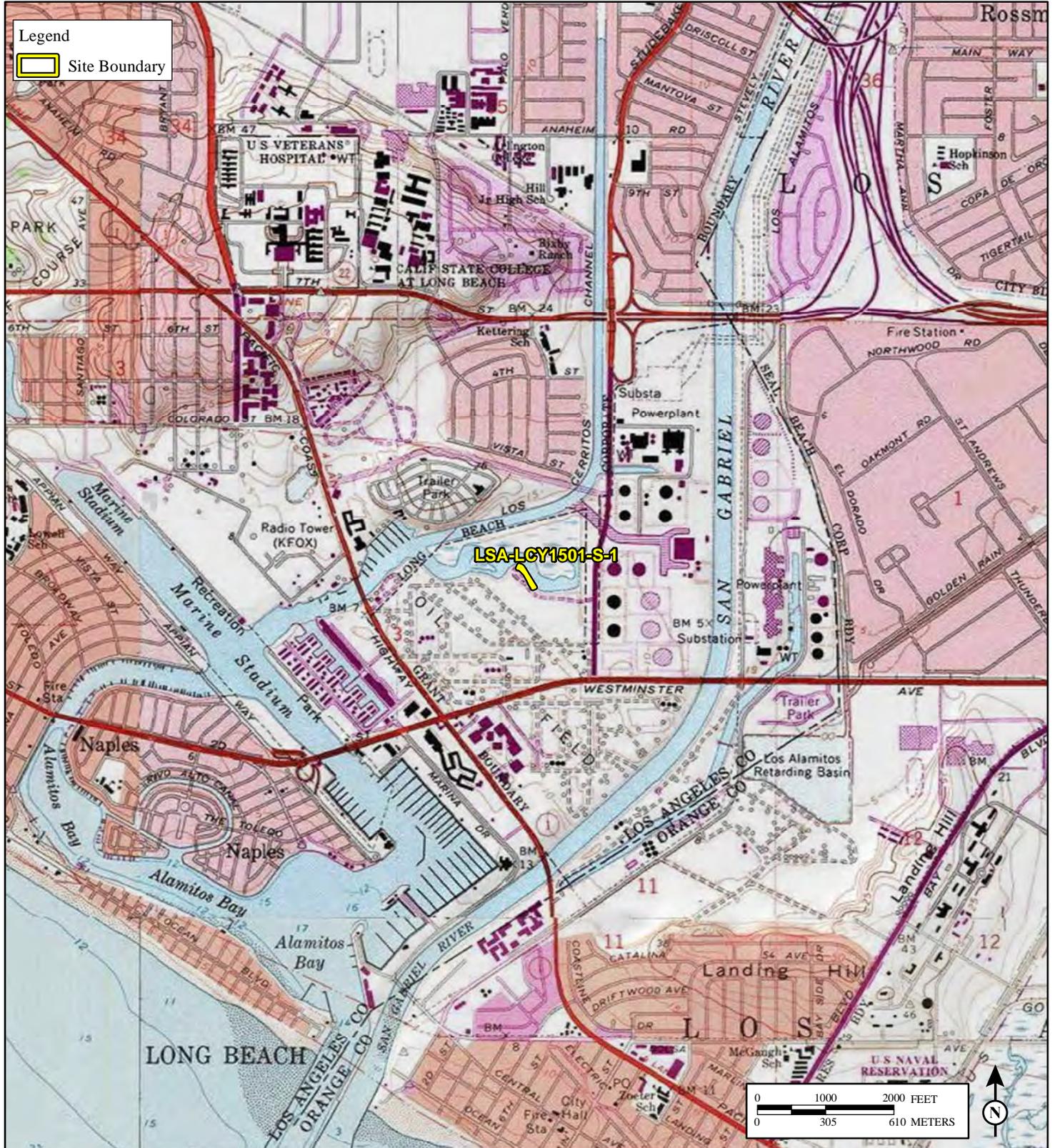
Page 2 of 4

\*Resource Name or #: (Assigned by recorder) LSA-LYC1501-S-1

- \*A1. **Dimensions:** a. Length 20 feet (NW-SE) x b. Width 30 feet (NE-SW)  
**Method of Measurement:**  Paced  Taped  Visual estimate  Other: Garmin™ GPS with two meter accuracy.  
**Method of Determination** (Check any that apply):  Artifacts  Features  Soil  Vegetation  Topography  
 Cut bank  Animal burrow  Excavation  Property boundary  Other (Explain):  
**Reliability of determination:**  High  Medium  Low Explain: The limits of the trash scatter are clear.  
**Limitations** (Check any that apply)  Restricted access  Paved/built over  Site limits incompletely defined  
 Disturbances  Vegetation  Other: (Explain): None.
- A2. **Depth:**  None  Unknown; Method of Determination: The site is a surficial trash scatter. No evidence that it extends below the ground surface (such as partially buried artifacts) was observed.
- \*A3. **Human Remains:**  Present  Absent  Possible  Unknown (Explain):
- \*A4. **Features** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on site map):
- \*A5. **Cultural Constituents:** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features): Observed artifacts include: Boot soles (numerous), milled lumber (large quantity), spark plugs, air filters, oil filters, industrial filters, concrete fragments (numerous), red bricks (numerous), rope, insulators, engine hoses, engine belts, ceramic tiles (numerous), slag (numerous), light bulb, Clorox bottles, plastic, bleach bottles, beer bottles (40 oz), plastic screw top medicine bottles, Milk of Magnesia bottle fragments, aqua glass, porcelain jar fragment, miscellaneous amber, green, and clear glass fragments.
- \*A6. **Were Specimens Collected?**  No  Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- \*A7. **Site Condition:**  Good  Fair  Poor (Describe disturbances): The site does not appear to have been disturbed other than by the regular tidal inundations that occur in the area.
- \*A8. **Nearest Water:** (Type, distance, and direction). Steamshovel Slough, adjacent to the north.
- \*A9. **Elevation:** 5 ft. above mean sea level
- A10. **Environmental Setting:** (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is located within the Synergy Oil Field in a tidal wetland environment.
- A11. **Historical Information:** Development of the oil field began in the 1920s and operation of the oil field has continued to the present day.
- \*A12. **Age:**  Prehistoric  Protohistoric  1542-1769  1769-1848  1848-1880  1880-1914  1914-1945  
 Post 1945  Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:
- A13. **Interpretations** (Discuss data potential, function(s), ethnic affiliation, and other interpretations): The site is a deposit of refuse from operation of the oil field.
- A14. **Remarks:**
- A15. **References** (Documents, informants, maps, and other references): None.
- A16. **Photographs** (List subjects, direction of view, and accession numbers or attach a Photograph Record):  
**Original Media/Negatives on file at:** LSA Associates, Inc., 20 Executive Park, Suite 200, Irvine, CA 92614
- \*A17. **Form Prepared by:** Phil Fulton **Date:** January 4, 2017  
**Affiliation and Address:** LSA Associates, Inc. 20 Executive Park, Suite 200, Irvine, CA 92614

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
LOCATION MAP

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_







State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
ARCHAEOLOGICAL SITE RECORD

Primary # \_\_\_\_\_  
HRI# \_\_\_\_\_  
Trinomial \_\_\_\_\_

Page 2 of 3

\*Resource Name or #: (Assigned by recorder) LSA-LYC1501-S-2

- \*A1. **Dimensions:** a. Length 430 feet (NW-SE) x b. Width 280 feet (NE-SW)  
**Method of Measurement:**  Paced  Taped  Visual estimate  Other: Garmin GPS with two meter accuracy.  
**Method of Determination** (Check any that apply):  Artifacts  Features  Soil  Vegetation  Topography  
 Cut bank  Animal burrow  Excavation  Property boundary  Other (Explain): Research  
**Reliability of determination:**  High  Medium  Low Explain: No evidence of the landfill is visible on the ground surface.  
**Limitations** (Check any that apply)  Restricted access  Paved/built over  Site limits incompletely defined  
 Disturbances  Vegetation  Other: (Explain): None.
- A2. **Depth:** 30 feet  None  Unknown; Method of Determination: Borings.
- \*A3. **Human Remains:**  Present  Absent  Possible  Unknown (Explain):
- \*A4. **Features** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on site map):
- \*A5. **Cultural Constituents:** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features): Observed artifacts during the borings include newspaper, plastic, metal, wood, glass, plant debris, rubber tubes and tires, and green waste.
- \*A6. **Were Specimens Collected?**  No  Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- \*A7. **Site Condition:**  Good  Fair  Poor (Describe disturbances): The site does not appear to have been disturbed since the landfill was closed and capped.
- \*A8. **Nearest Water:** (Type, distance, and direction). San Gabriel River, adjacent to the east.
- \*A9. **Elevation:** 15 ft. above mean sea level
- A10. **Environmental Setting:** (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): N/A.
- A11. **Historical Information:** In 1960 the property was leased from the Bixby Ranch Company by City Dump and Salvage, Inc. of Long Beach, California for the creation of the City Dump and Salvage Landfill #2. During September 1960, City Dump and Salvage, Inc. received a permit from the County of Los Angeles, Industrial Waste Division, to accept wastes in the eastern half of the site at a minimum of 300 feet from Pacific Coast Highway. The waste accepted at the facility was required to comply with the following criteria: (1) non-water soluble, non-decomposable inert solids; (2) ordinary household and commercial refuse, including decomposable organic refuse and scrap metal; and (3) garbage and market refuse. The disposal of liquids, semi-liquids, and hazardous classified waste was not permitted. City Dump and Salvage, Inc. commenced waste acceptance operations at the site in mid-1960 (prior to receiving an approved permit) and ceased operations in early 1961 after filling the landfill to its permitted capacity (AEC 2015).
- \*A12. **Age:**  Prehistoric  Protohistoric  1542-1769  1769-1848  1848-1880  1880-1914  1914-1945  
 Post 1945  Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:
- A13. **Interpretations** (Discuss data potential, function(s), ethnic affiliation, and other interpretations): The site is a municipal landfill.
- A14. **Remarks:**
- A15. **References** (Documents, informants, maps, and other references): Advanced Environmental Concepts Inc. 2015 Phase I Environmental Site Assessment for Pumpkin Patch Property; 7001 East Pacific Coast Highway; County of Los Angeles; Long Beach, California. On file with Advanced Environmental Concepts Inc.; 220 East Truxton Avenue; Bakersfield, California 93305.
- A16. **Photographs** (List subjects, direction of view, and accession numbers or attach a Photograph Record):  
**Original Media/Negatives On File at:** LSA Associates, Inc., 20 Executive Park, Suite 200, Irvine, CA 92614
- \*A17. **Form Prepared By:** Phil Fulton **Date:** January 5, 2017  
**Affiliation and Address:** LSA Associates, Inc., 20 Executive Park, Suite 200, Irvine, CA 92614

State of California - The Resources Agency  
**DEPARTMENT OF PARKS AND RECREATION**  
**LOCATION MAP**

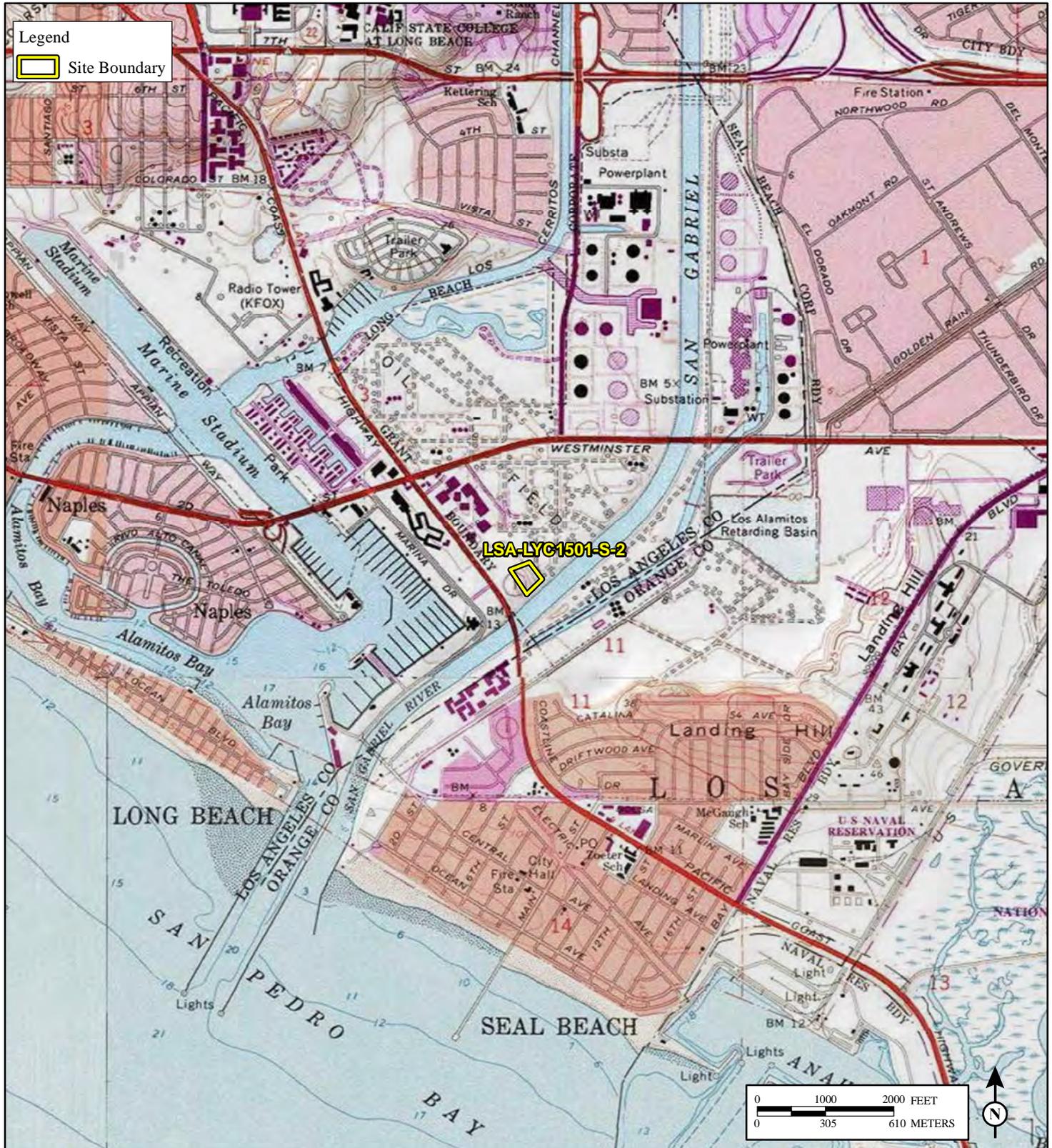
Primary # \_\_\_\_\_  
 HRI # \_\_\_\_\_  
 Trinomial \_\_\_\_\_

\*Resource Name or # (Assigned by recorder) **LSA-LYC1501-S-2**

\*Map Name: USGS 7.5' Quadrangle, Los Alamitos, California

\*Scale: 1:24,000

\*Date of Map: 1981



## **D3 Paleontological Resources Assessment**



**PALEONTOLOGICAL RESOURCES  
ASSESSMENT**

**LOS CERRITOS WETLAND RESTORATION AND OIL CONSOLIDATION  
PROJECT**

**CITY OF LONG BEACH, COUNTY OF LOS ANGELES, CALIFORNIA**

**LSA**

May 2016

**PALEONTOLOGICAL RESOURCES  
ASSESSMENT**

**LOS CERRITOS WETLAND RESTORATION AND OIL CONSOLIDATION  
PROJECT**

**CITY OF LONG BEACH, COUNTY OF LOS ANGELES, CALIFORNIA**

Submitted to:

Peter Zak  
Senior Vice President  
Lyon Communities  
4901 Birch Street  
Newport Beach, California 92660

Prepared by:

Sarah Rieboldt, Ph.D.  
LSA Associates, Inc.  
20 Executive Park, Suite 200  
Irvine, California 92614  
(949) 553-0666

Project No. LYC1501

**LSA**

May 2016

## EXECUTIVE SUMMARY

LSA Associates, Inc. (LSA) was retained by Lyon Communities to prepare a paleontological resources assessment for the proposed Los Cerritos Wetland Restoration and Oil Consolidation Project (project) located in the City of Long Beach (City) in the County of Los Angeles, California. The project proposes a comprehensive wetlands restoration program to restore and remediate the Synergy Oil Field property. It includes the creation of a wetlands mitigation bank and the relocation of specific oil facilities from the Synergy Oil Field to off-site properties.

The 199-acre (ac) project area consists of four sites: the Synergy Oil Field Site (154 ac), the “Pumpkin Patch” Site (7 ac), the Los Cerritos Wetlands Authority (LCWA) Site (5 ac), and the City Marketplace Marsh (33 Acres) Site (33 ac). The project involves the restoration of wetlands on the Synergy Oil Field Site, development of oil production and construction of related facilities to the “Pumpkin Patch” Site and the LCWA Site, and abandonment of the oil wells on the City Marketplace Marsh (33 Acres) Site. The purpose of this assessment was to determine the potential for project development to impact scientifically significant, nonrenewable paleontological resources and, if needed, make recommendations for mitigating those impacts. This assessment included a locality search through the records at the Natural History Museum of Los Angeles County (LACM), an examination of geologic maps and paleontological literature, and a field survey.

No significant fossil localities were identified directly within the project area during the locality search or field survey, and geologic mapping shows the entire project area contains Artificial Fill, which has no paleontological sensitivity. However, the Artificial Fill in the project area likely overlies Young Alluvial Fan and Valley Deposits, Undivided, which have low paleontological sensitivity from the surface to a depth of 10 feet (ft) and high paleontological sensitivity below that mark. The depth of Artificial Fill across the project area is unknown, except in the eastern half of the “Pumpkin Patch” Site where it extends to approximately 33 ft.

For portions of the project that will have no ground disturbance or where ground disturbance will remain in deposits with no or low paleontological sensitivity (i.e., Artificial Fill or Young Alluvial Fan and Valley Deposits, Undivided from the surface to a depth of 15 ft), LSA recommends that no paleontological mitigation be required. However, if paleontological resources are encountered in deposits with low paleontological sensitivity (i.e., Young Alluvial Fan and Valley Deposits, Undivided from the surface to a depth of 15 ft), a paleontologist should be contacted in order to assess the find for scientific significance and a paleontological mitigation program should be developed.

LSA also recommends that if ground-disturbing activities will reach deposits with high paleontological sensitivity (i.e., Young Alluvial Fan and Valley Deposits, Undivided below a depth of 15 ft over most of the project area or below a depth of 33 ft in the eastern half of the “Pumpkin Patch” Site), there is a potential for the project to impact scientifically significant paleontological resources. In order to mitigate potential adverse impacts to those resources, as required by California Environmental Quality Act (CEQA) Appendix G and Public Resources Code Section 5097.5, LSA recommends the following procedures:

- A paleontologist shall be hired to develop a Paleontological Resource Impact Mitigation Program (PRIMP) for this project. The PRIMP shall include the methods that will be used to protect paleontological resources that may exist within the project area, as well as procedures for monitoring, fossil preparation and identification, curation into a repository, and preparation of a report at the conclusion of grading.
- Excavation and grading activities in deposits with a high paleontological sensitivity rating (Young Alluvial Fan and Valley Deposits, Undivided below a depth of 15 ft from the surface) shall be monitored by a qualified paleontologist following a PRIMP.
- If fossils are recovered from sediments with low paleontological sensitivity (Young Alluvial Fan and Valley Deposits, Undivided from the surface to a depth of 15 ft below the surface), the paleontologist shall make recommendations as to whether monitoring shall be required in these sediments on a full-time basis beginning at a shallower depth.
- In the event that paleontological resources are encountered when a paleontological monitor is not present, work in the immediate area of the find shall be redirected and a paleontologist shall be contacted to assess the find for significance. If determined to be significant, the fossil shall be collected from the field.
- If paleontological resources are encountered during the course of ground disturbance, the paleontological monitor shall have the authority to temporarily redirect construction away from the area of the find in order to assess its significance.
- Collected resources shall be prepared to the point of identification, identified to the lowest taxonomic level possible, cataloged, and curated into the permanent collections of an accredited scientific institution.
- At the conclusion of the monitoring program, a report of findings shall be prepared to document the results of the monitoring program.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	i
INTRODUCTION.....	1
REGULATORY ENVIRONMENT.....	6
METHODS.....	7
LITERATURE REVIEW.....	7
LOCALITY SEARCH .....	7
FIELD SURVEY.....	7
PERSONNEL.....	9
RESULTS.....	10
LITERATURE REVIEW.....	10
Artificial Fill.....	10
Young Alluvial Fan and Valley Deposits, Undivided.....	12
LOCALITY SEARCH .....	12
FIELD SURVEY.....	13
SUMMARY .....	14
RECOMMENDATIONS .....	15
REFERENCES.....	17

## FIGURES

Figure 1: Project Location and Vicinity .....	2
Figure 2: Project Properties .....	3
Figure 3: Map of Surveyed Areas .....	8
Figure 4: Geology Map .....	11

## APPENDIX

A: RESUME

B: FOSSIL LOCALITY SEARCH RESULTS FROM THE NATURAL HISTORY MUSEUM OF  
LOS ANGELES COUNTY – CONFIDENTIAL – NOT FOR PUBLIC DISTRIBUTION

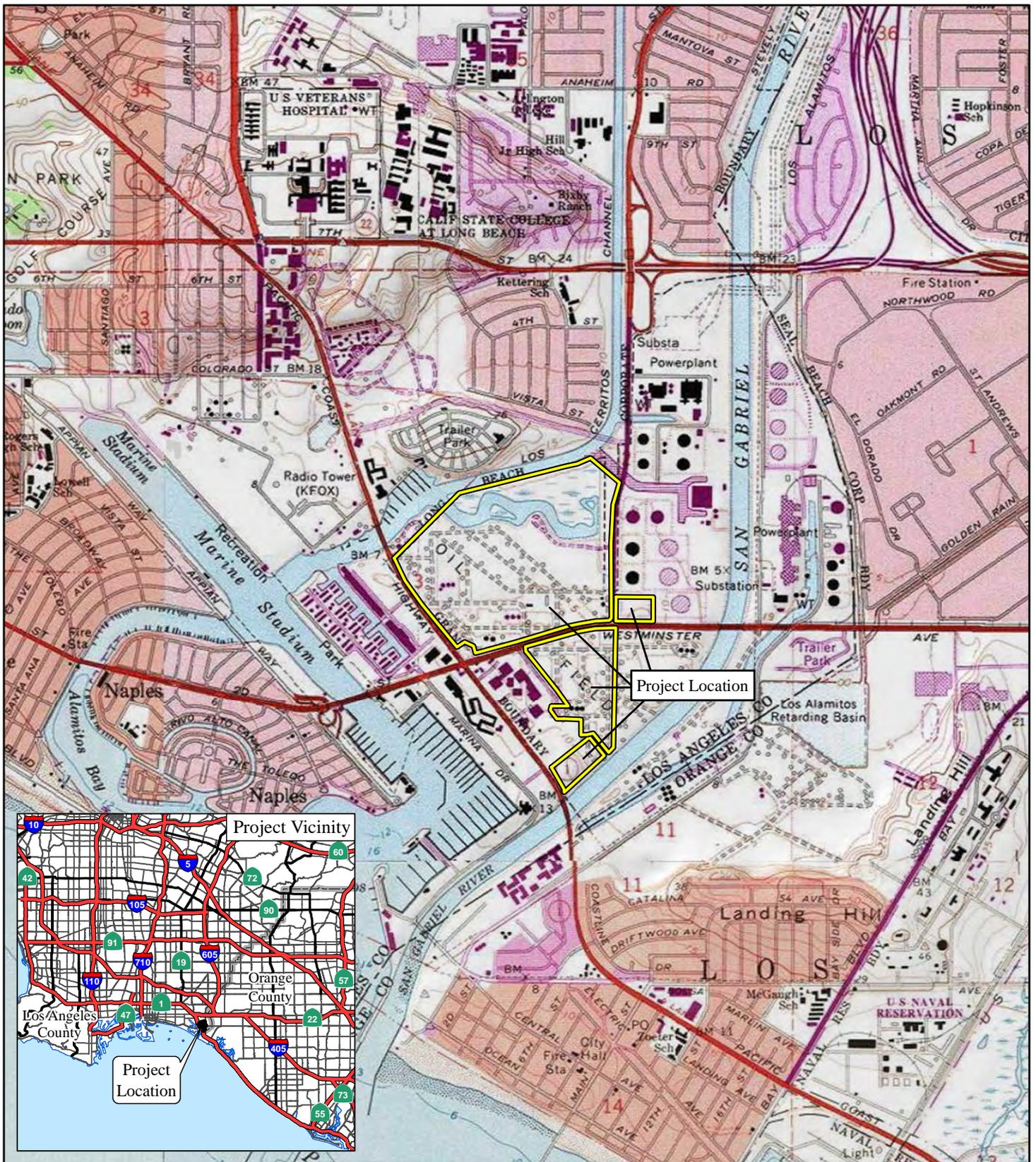
## INTRODUCTION

LSA Associates, Inc. (LSA) conducted a paleontological resources assessment for the Los Cerritos Wetlands Restoration and Oil Consolidation Project (project) located in the City of Long Beach (City), County of Los Angeles, California. Specifically, the project area is located in Section 3 and in unsectioned portions of Township 5 South, Range 12 West, and is depicted on the United States Geological Survey (USGS) *Los Alamitos, California*, 7.5 minute topographic quadrangle map, San Bernardino Baseline and Meridian (USGS 1981; Figure 1). The assessment included a records search, field survey, and report, which were completed in December 2015 and January 2016.

The purpose of the assessment was to determine whether paleontological resources may be present within the proposed project area, whether they might be impacted by development of the project, and to make recommendations to mitigate any potential impacts to paleontological resources. This assessment was prepared to ensure project compliance with all applicable State and City regulations and guidelines regarding paleontological resources, including the California Environmental Quality Act ([CEQA]; as amended January 1, 2015): Public Resources Code (PRC) Division 13 (Environmental Quality), Chapter 2.6; the *State CEQA Guidelines*: California Code of Regulations (CCR), Title 14, Chapter 3, Appendix G; PRC 5097.5; and the Society of Vertebrate Paleontology (SVP, 2010).

The project consists of four sites: the Synergy Oil Field Site (154 acres [ac]), the “Pumpkin Patch” Site (7ac), the Los Cerritos Wetlands Authority (LCWA) Site (5 ac), and the City Marketplace Marsh (33 Acres) Site (33 ac; Figure 2). The Synergy Oil Field Site is located at 6433 East 2nd Street between Pacific Coast Highway to the west, the Los Cerritos Channel to the north, Studebaker Road to the east, and 2nd Street to the south. The “Pumpkin Patch” Site is located at 6701 East Pacific Coast Highway at the northeast corner of the intersection with the San Gabriel Channel. The LCWA Site is located at the northeast corner of the intersection of Studebaker Road and Westminster Boulevard. The City Marketplace Marsh (33 Acres) Site is located between 2nd Street to the north and the San Gabriel River to the south.

**Synergy Oil Field Site.** On the Synergy Oil Field Site, the project proposes to establish a wetlands mitigation bank and public access trail on the northerly approximately 78 ac of the 154 ac Synergy Oil Field (formerly known as the Bixby Oil Field), to implement a wetlands restoration plan on the southerly approximately 72 ac of the Synergy Oil Field, and to construct public access improvements, including a parking lot on existing disturbed areas and converting an existing building for use as a visitors’ center on the remaining approximately 4 ac of the Synergy Oil Field. The mitigation bank provides for the phased restoration and permanent preservation of restored wetlands. The project also proposes the removal of 37 oil wells from the southerly 72 ac. The Synergy Oil Field is owned and operated by Beach Oil Minerals Partners.



LSA

LEGEND

 Project Location

FIGURE 1



0 1000 2000  
FEET

SOURCE: USGS 7.5' Quad - Long Beach (1978), Los Alamitos (1981), and Seal Beach (1981), CA

E:\LYC1501\GIS\ProjectLocation\_USGS.mxd (4/6/2016)

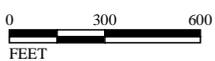
*Los Cerritos Wetlands Restoration  
and Oil Consolidation Project  
Project Location and Vicinity*



L S A

LEGEND

- Synergy Site
- City Marketplace Marsh (33 Acres) Site
- LCWA Site
- Pumpkin Patch Site



SOURCE: Bing Maps (2014); Glenn Lukos Associates (2015)

E:\LYC1501\GIS\ProjectProperties.mxd (4/6/2016)

FIGURE 2

*Los Cerritos Wetlands Restoration  
and Oil Consolidation Project  
Project Properties*

**“Pumpkin Patch” Site.** In order to facilitate the restoration of the approximately southerly 72 ac on the Synergy Oil Field and construction of the public access improvements, the warehouse structures currently on the Synergy Oil Field will be removed and a portion of the oil production activities currently being conducted at the Synergy Oil Field will be relocated to the 7 ac property located at 6701 E. Pacific Coast Highway (commonly known as the “Pumpkin Patch”). The office uses currently occupying the Bixby building on the Synergy Oil Field site would be relocated to a new approximately 5,200-square-foot (sf) two-story office building constructed on the Pumpkin Patch Site. Other proposed site developments include approximately 9,750 sf of storage/warehouse, parking for 47 cars, drilling of up to 50 new wells (both oil production and water injection wells), and associated production facilities. The height of the office building is 35 ft, and the storage/warehouse is 22 ft.

In addition to the 50 wells, two tanks will be constructed on the site: a 3,000-barrel tank for storing “wet oil” that is 30 ft in diameter and 24 ft high; and a 2,000-barrel “skim oil” tank that is 24 ft in diameter and 24 ft high. There is an existing oil well on the Pumpkin Patch Site, which will be used on a temporary basis as a test well to confirm the feasibility of oil production operations on Pumpkin Patch.

A 22 ft high screen wall will be built on the perimeter of the Pumpkin Patch Site. Vehicular access to the site will be from Studebaker Road. The structures will be set back 30 ft from Pacific Coast Highway, and perimeter landscaping will be provided along Studebaker, Pacific Coast Highway, and the San Gabriel River Channel.

The Pumpkin Patch Site is owned by Beach Oil Minerals Partners. The Pumpkin Patch Site is currently vacant, except for one operating oil well. It is currently used for seasonal sales of pumpkins and Christmas trees.

Although the Pumpkin Patch Site is approximately 7 ac in size, the oil production operations will be located on 5 ac of the site closest to Pacific Coast Highway. The northeasterly 2 ac portion of the site will be retained as open space and used to provide a 100 ft buffer from the coastal wetland habitat area at the eastern edge of the site.

**LCWA Site.** The project proposes the drilling and operation of up to 70 wells on a 5 ac parcel owned by LCWA located at Studebaker and Westminster (“LCWA Site”) to replace the oil production facilities currently on the Synergy Oil Field and the City’s 33 Acres. The LCWA Site is currently undeveloped and is used on a temporary lease basis for equipment storage and staging. Due to the geologic conditions at the Synergy Oil Field (i.e., the Newport-Inglewood Fault traverses the site), the oil field is divided between two operating areas, one on each side of the fault. The oil field operations north of the fault extract oil from a subterranean oil horizon that cannot be accessed from Pumpkin Patch, but can be accessed from the LCWA Site.

The wells will be a combination of oil production well and water injection wells. In addition to the oil production area, the project proposes to construct an elevated piperack, a 21,000-barrel sales oil tank (35 ft in height and 75 ft in diameter), and a 5,000-barrel injection water tank (35 ft in height and 32 ft in diameter). The site will also include a 15–20 ft high ground flare, and 3 gas turbines for on-site electrical power generation. A 22 ft high screen wall will be built on the perimeter of the LCWA

Site. The project proposes to improve the existing driveway off Studebaker Road to a 30 ft entrance/exit, and to construct a secondary 30 ft access from Westminster Boulevard. Perimeter landscaping will be provided along the Studebaker Road and Westminster Boulevard frontage.

**City Marketplace Marsh (33 Acres) Site.** The project proposes the removal of approximately 21 oil wells that are currently being operated on the 33 Acres, City-owned property located at Westminster and Shopkeeper Road. The wells are being operated pursuant to a Surface Use Release Agreement and Grant of Easements (“Surface Use Agreement”) between the City and LCW Oil Operations, LLC, and the wells would be removed and abandoned in accordance with the terms of the Surface Use Agreement, which requires abandonment to a standard acceptable to the State of California Division of Oil, Gas and Geothermal Resources at the time of abandonment and suitable for the City’s intended use for public open space.

## REGULATORY ENVIRONMENT

Under State law, paleontological resources are protected by CEQA and PRC Section 5097.5, both of which are discussed in more detail below.

The purpose of CEQA is to provide a statewide policy of environmental protection. As part of this protection, State and local agencies are required to analyze, disclose, and, when feasible, mitigate the environmental impacts of, or find alternatives to, proposed projects. The *State CEQA Guidelines* (CCR 15000 et seq.) provide regulations for the implementation of CEQA and include more specific direction on the process of documenting, analyzing, disclosing, and mitigating the environmental impacts of a project. To assist in this process, Appendix G of the *State CEQA Guidelines* provides a sample checklist form that may be used to identify and explain the degree of impact a project will have on a variety of environmental aspects, including paleontological resources (Section V[c]). As stated in Section 15002(b)(1–3) of the *State CEQA Guidelines*, CEQA applies to governmental action, including activities that are undertaken by, financed by, or require approval from a government agency.

The California PRC Section 5097.5 protects historic, archaeological, and paleontological resources on public lands in California and establishes criminal and civil penalties for violations. Specifically, this law states:

- “(a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.
- (b) As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

## METHODS

### LITERATURE REVIEW

The literature review included an examination of geologic maps of the project area and a review of relevant geological and paleontological literature to determine which geologic units are present within the project areas and whether fossils have been recovered from those geologic units elsewhere in the region. As geologic units may extend over large geographic areas and contain similar lithologies and fossils, the literature review includes areas well beyond the project area. The results of this literature review include an overview of the geology of the project areas and a discussion of the paleontological sensitivity (or potential) of the geologic units within the project area.

### LOCALITY SEARCH

The purpose of a locality search is to establish the status and extent of previously recorded paleontological resources within and adjacent to the study area for a given project. In December 2015, a locality search was completed through the Natural History Museum of Los Angeles County (LACM). This search identified any vertebrate localities in the LACM records that exist near the project area in the same or similar deposits. When available, details of those localities, such as formation, rock type, depth, and species lists were also noted. A copy of the locality search results from the LACM is attached.

### FIELD SURVEY

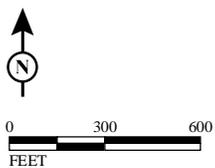
On December 15 and 16, 2016, LSA surveyors Terri Fulton and Phil Fulton conducted a pedestrian survey of the accessible portions of the Synergy Oil Field, the “Pumpkin Patch,” the LCWA Site, and the City Marketplace Marsh (33 Acres). Mr. and Ms. Fulton are cross-trained to identify paleontological resources. All accessible parts of the undeveloped portion that had at least some ground visibility were surveyed in systematic parallel transects spaced 10 to 12 meters (m) (33 to 40 ft) apart. The surveyed areas are shown in Figure 3. Special attention was paid to any graded areas and to rodent burrows that offered a better view of the underlying sediment. The purpose of this survey was to confirm the accuracy of the geologic mapping and to identify whether any previous ground-disturbing activities had brought any paleontological resources to the surface. In this way, LSA could locate areas within the project that could potentially contain paleontological resources.



LSA

LEGEND

-  Synergy Site
-  City Marketplace Marsh (33 Acres) Site
-  LCWA Site
-  Pumpkin Patch Site
-  Areas not physically surveyed



SOURCE: Bing Maps (2014); Glenn Lukos Associates (2015)  
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FIGURE 3

*Los Cerritos Wetlands Restoration  
 and Oil Consolidation Project  
 Survey Coverage*

## PERSONNEL

Dr. Sarah Rieboldt, Senior Paleontological Resources Manager at LSA, prepared this assessment. Dr. Rieboldt received her Ph.D. in Paleontology from the University of California, Berkeley, and has extensive experience surveying for and collecting paleontological resources; salvaging large fossil specimens; collecting bulk sediment samples; identifying, preparing, and curating fossil material; and writing a variety of paleontological resources reports and mitigation plans. She has conducted paleontological and geological fieldwork in California, Nevada, Utah, Wyoming, Colorado, Texas, and Alabama and has 8 years of experience working with natural history collections in several museums (the Field Museum of Natural History, the University of California Museum of Paleontology, and the University of Colorado Museum of Natural History). She has worked as a geologist and paleontological consultant on many different projects, including carbon sequestration and astrobiology research programs funded by the United States Department of Energy (DOE) and the National Aeronautics and Space Administration (NASA), respectively, as well as on projects for the State of California Department of Parks and Recreation, Caltrans, and various private developers in California, Nevada, and Utah. Her resume is included in Appendix A.

## RESULTS

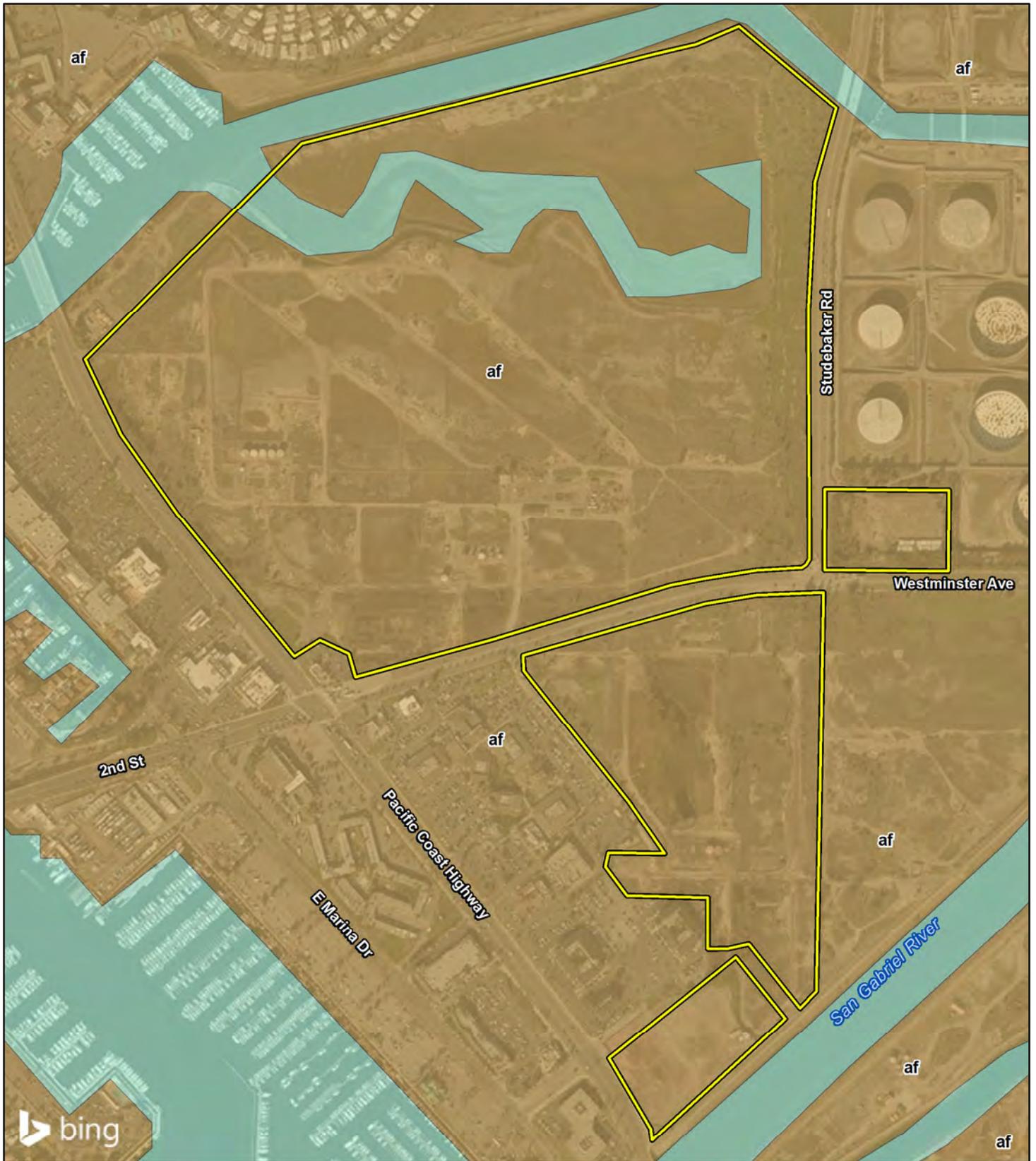
### LITERATURE REVIEW

The project is located at the northern end of the Peninsular Ranges Geomorphic Province, a 900-mile (mi) long northwest-southeast trending structural block that extends from the Transverse Ranges in the north to the tip of Baja California in the south and includes the Los Angeles Basin (California Geological Survey, 2002; Norris and Webb, 1976). This province is characterized by mountains and valleys that trend in a northwest-southeast direction, roughly parallel to the San Andreas Fault. The total width of the province is approximately 225 mi, extending from the Colorado Desert in the east, across the continental shelf, to the Southern Channel Islands (i.e., Santa Barbara, San Nicolas, Santa Catalina, and San Clemente) (Sharp, 1976). It contains extensive pre-Cretaceous (more than 145 million years ago [Ma]) and Cretaceous (145 to 66 Ma) igneous and metamorphic rock covered by limited exposures of post-Cretaceous (less than 66 Ma) sedimentary deposits (Norris and Webb, 1976).

Within this larger region, the project is located in the Los Angeles Basin, a broad alluvial lowland bounded to the north and east by the San Gabriel and Santa Ana Mountains, respectively, and by the Pacific Ocean to the southwest (Yerkes et al., 1965). The basin is underlain by a structural depression that has discontinuously accumulated thousands of feet of marine and terrestrial deposits since the Late Cretaceous (approximately 100.5 Ma) (Yerkes et al., 1965). Over millions of years, the basin has experienced episodes of subsidence, deposition, uplift, erosion, and faulting, all of which have resulted in very complex geology as well as a prolific oil industry (Bilodeau et al., 2007; Yerkes et al., 1965). The surface of the basin slopes gently southwestward toward the ocean, interrupted in various places by low hills and traversed by several large rivers, including the Los Angeles River, Rio Hondo, Santa Ana River, and San Gabriel River (Sharp; 1976; Yerkes et al., 1965). Because the gradient of the basin is quite shallow, these rivers have not always flowed in their current channels; rather, they have flowed across various parts of the basin, depositing sediments over large areas (Sharp; 1976; Yerkes et al., 1965). These sediments include the Young Alluvial Fan and Valley Deposits, Undivided mapped to the northeast of the project area and which likely exist beneath the Artificial Fill mapped at the surface of the project area (Saucedo et al., 2003). These geologic units are briefly described below, and the attached Figure 4 shows the geology of the project area.

#### Artificial Fill

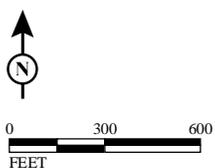
According to Saucedo et al. (2003), Artificial Fill is present over the entire project area, likely placed during development of the oil field, construction of the nearby marina, and channelization of the San Gabriel River. Artificial Fill consists of sediments that have been removed from one location and transported to another by humans. The transportation distance can be a few feet to dozens of miles, and composition is dependent on the source. Artificial Fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and even plant material.



LSA

LEGEND

- Project Location
- Geologic Units
- af - Artificial fill
- Water



SOURCE: Bing Maps (2014); Saucedo et al. (2003)  
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FIGURE 4

*Los Cerritos Wetlands Restoration  
 and Oil Consolidation Project  
 Geology Map*

The Phase II Drilling and Sampling Report conducted for this project indicated that the eastern half of the “Pumpkin Patch” Site was previously used as a landfill and contains a mixture of soil and solid waste, including wood, paper, and medical waste (Advanced Environmental Concepts, Inc. [AEC], 2012). The waste mixture reaches a maximum depth of approximately 33 ft in the central portion of the former landfill and gets shallower toward the periphery. Information on the contents or depth of Artificial Fill at the other three sites included in this project could not be obtained for this report.

Artificial Fill may contain fossils, but these fossils have been removed from their original location and are thus out of stratigraphic context. Therefore, they are not considered important for scientific study. As such, Artificial Fill has no paleontological sensitivity.

### **Young Alluvial Fan and Valley Deposits, Undivided**

The Young Alluvial Fan and Valley Deposits, Undivided are Holocene to Late Pleistocene in age (less than 126,000 years ago) and consist of poorly consolidated clay, sand, gravel, and cobbles (Saucedo et al., 2003). These sediments were eroded from higher elevations, carried by flooding streams and debris flows, and deposited at lower elevations. These deposits are mapped to the northeast of the project area and along the length of the San Gabriel River, the low-lying floodplain of which encompasses the project area near where the river empties into the Pacific Ocean (Saucedo et al., 2003). As such, the Young Alluvial Fan and Valley Deposits likely underlie the Artificial Fill placed within the project area.

The San Gabriel River cuts through late to middle Pleistocene (11,700 – 781,000 years ago) Old Paralic Deposits mapped on the slightly elevated areas to the northwest and southeast of the project area (Saucedo et al., 2003). The Old Paralic Deposits consist of reddish-brown siltstone, sandstone, and conglomerate deposited in beach, estuary, and terrestrial environments (Saucedo et al., 2003). They rest on wave-cut platforms that have been preserved by regional uplift (Saucedo et al., 2003).

Although Holocene deposits can contain remains of plants and animals, generally not enough time has passed for the remains to become fossilized. In addition, the remains are conspecific with modern species and are usually not considered scientifically important. However, the older, Pleistocene deposits have produced scientifically important fossils elsewhere in Southern California (Jefferson, 1991a, 1991b; Miller, 1971). These older deposits span the end of the Rancholabrean North American Land Mammal Age (NALMA), which was named for the Rancho La Brea fossil site in central Los Angeles and dates from 240,000 to 11,000 years ago (Alroy, 2000). The presence of *Bison* defines the beginning of the Rancholabrean NALMA (Bell et al., 2004), but fossils from this time also include other large and small mammals, reptiles, fish, invertebrates, and plants. There is a potential to find these types of fossils in the older sediments of this geologic unit, which may be encountered below a depth of approximately 15 ft. Therefore, the Young Alluvial Fan and Valley Deposits, Undivided are assigned a low paleontological sensitivity above a depth of 15 ft and a high sensitivity below that mark.

## **LOCALITY SEARCH**

According to the locality search conducted by the LACM, the project area includes Artificial Fill overlying younger Quaternary Alluvium derived from the San Gabriel River that currently flows just to the southeast (i.e., Young Alluvial Fan and Valley Deposits, Undivided as mapped by Saucedo et

al., 2003). The museum notes that the uppermost layers of the younger Quaternary deposits are unlikely to contain significant vertebrate fossils, but that the older Quaternary sediments, which may be encountered at depth, may do so. Moreover, the museum has records of vertebrate fossil localities from older Quaternary deposits near the project area. The closest vertebrate fossil locality is LACM 3757, located just northwest of the project area. This locality produced specimens of eagle ray (*Myliobatis*), skate (Rhinobatoidea), white shark (*Carcharodon*), blue shark (*Prionace*), requiem shark (Carcharhinidae), surfperch (*Damalichthys* and *Rhacochilus*), croaker (*Genyonemus*), pond turtle (*Emys*), diving duck (*Chendytes*), loon (*Gavia*), dog (*Canis*), sea otter (*Enhydra*), horse (*Equus*), camel (*Hemiauchenia*), and pocket gopher (*Thomomys*). Another locality, LACM 6746, located northwest of the project area, produced a fossil mammoth (*Mammuthus*). West of the project area and near or on the beach, the LACM has additional vertebrate fossil localities in older Quaternary deposits. Locality LACM 2031 produced specimens of fossil bison (*Bison antiquus*) from a depth of 25 ft below the top of a bluff. Locality LACM 7739 yielded a diverse suite of marine vertebrate fossils from a depth of about 55 ft. These fossils include dusky shark (*Carcharhinus*), soupfin shark (*Galeorhinus galeus*), hammerhead shark (*Sphyrna*), leopard shark (*Triakis semifasciata*), horn shark (*Heterodontus francisci*), stingray (*Dasyatis*), eagle ray (*Myliobatis californica*), skate (*Raja*), guitarfish (*Rhinobatis productus*), dogfish (*Squalus acanthias*), angel shark (*Squatina californica*), midshipman (*Porichthys notatus*), cusk-eel (*Chilara taylori*), surfperches (*Cymogaster aggregata*, *Damalichthys*, *Embiotoca jacksoni*, *Hyperprosopon argenteum*, *Micrometrus aurora*, and *Phaneron furcatus*), goby (Gobiidae), croaker (*Genyonemus lineatus*), queenfish (*Seriphus politus*), barracuda (*Sphyrna argentea*), sanddabs (*Citharichthys sordidus* and *C. stigmaeus*), sole (*Glyptocephalus zachirus* and *Lyopsetta exilis*), sculpin (Cottidae), rockfish (*Sebastes goodei*), herring (Clupeidae), and undetermined mammal (Mammalia). Locality LACM 1005 produced specimens of fossil mammoth (*Mammuthus columbi*) and ground sloth (*Nothrotheriops shastensis*) at a depth of approximately 60 ft.

The LACM suggests that excavation below a depth of approximately 5 ft has the potential to reach older Quaternary deposits and encounter significant vertebrate fossils. As such, the museum recommends that any excavation below 5 ft be monitored by a qualified paleontological monitor to quickly and professionally recover any fossils that may be discovered. The museum also recommends that sediment samples be collected and processed to test for the presence of small vertebrate fossils. Any fossils recovered should be deposited in a permanent scientific institution.

The results of the fossil locality search through the LACM are considered confidential and included in Appendix B.

## FIELD SURVEY

No paleontological resources were observed during the field survey. The entire project area has been disturbed by oil field operations and contains sparse to dense introduced vegetation and native coastal wetlands vegetation. Ground visibility during the survey was poor to excellent depending on the presence of vegetation, oil field operation structures, and the fluctuating tidal flow, which at high tide created large areas of standing water. These factors limited the accessible survey area to approximately 80 percent. Where exposed, the surveyor noted that the sediments within the project area are consistent with the Artificial Fill mapped by Saucedo et al. (2003).

## SUMMARY

The results of the locality search and field survey conducted during preparation of this report indicate that no paleontological resources have been found within or immediately adjacent to the project area. The project area contains Artificial Fill overlying Young Alluvial Fan and Channel Deposits, Undivided. Artificial Fill reaches a maximum depth of approximately 33 ft in the eastern half of the “Pumpkin Patch” Site; however, the depth of Artificial Fill elsewhere in the project area is unknown. While Artificial Fill has no paleontological sensitivity, the Young Alluvial Fan and Channel Deposits, Undivided have low paleontological sensitivity to a depth of 15 ft and high paleontological sensitivity below that mark.

## RECOMMENDATIONS

No significant fossil localities were identified directly within the project area during the locality search or field survey, and geologic mapping shows the entire project area contains Artificial Fill, which has no paleontological sensitivity. However, the Artificial Fill in the project area likely overlies Young Alluvial Fan and Valley Deposits, Undivided, which have low paleontological sensitivity from the surface to a depth of 15 ft and high paleontological sensitivity below that mark. The depth of Artificial Fill across the project area is unknown, except in the eastern half of the “Pumpkin Patch” Site where it extends to approximately 33 ft.

For portions of the project that will have no ground disturbance or where ground disturbance will remain in deposits with no or low paleontological sensitivity (i.e., Artificial Fill or Young Alluvial Fan and Valley Deposits, Undivided from the surface to a depth of 15 ft), LSA recommends that no paleontological mitigation be required. However, if paleontological resources are encountered in deposits with low paleontological sensitivity (i.e., Young Alluvial Fan and Valley Deposits, Undivided from the surface to a depth of 15 ft), a paleontologist should be contacted in order to assess the find for scientific significance and a paleontological mitigation program should be developed.

LSA also recommends that if ground-disturbing activities will reach deposits with high paleontological sensitivity (i.e., Young Alluvial Fan and Valley Deposits, Undivided below a depth of 15 ft over most of the project area or below a depth of 33 ft in the eastern half of the “Pumpkin Patch” Site), there is a potential for the project to impact scientifically significant paleontological resources. In order to mitigate potential adverse impacts to those resources, as required by CEQA Appendix G and PRC Section 5097.5, LSA recommends the following procedures:

- A paleontologist shall be hired to develop a Paleontological Resource Impact Mitigation Program (PRIMP) for this project. The PRIMP shall include the methods that will be used to protect paleontological resources that may exist within the project area, as well as procedures for monitoring, fossil preparation and identification, curation into a repository, and preparation of a report at the conclusion of grading.
- Excavation and grading activities in deposits with a high paleontological sensitivity rating (Young Alluvial Fan and Valley Deposits, Undivided below a depth of 15 ft from the surface) shall be monitored by a qualified paleontologist following a PRIMP.
- If fossils are recovered from sediments with low paleontological sensitivity (Young Alluvial Fan and Valley Deposits, Undivided from the surface to a depth of 15 ft below the surface), the paleontologist shall make recommendations as to whether monitoring shall be required in these sediments on a full-time basis beginning at a shallower depth.
- In the event that paleontological resources are encountered when a paleontological monitor is not present, work in the immediate area of the find shall be redirected and a paleontologist should be contacted to assess the find for significance. If determined to be significant, the fossil shall be collected from the field.
- If paleontological resources are encountered during the course of ground disturbance, the paleontological monitor shall have the authority to temporarily redirect construction away from the area of the find in order to assess its significance.

- Collected resources shall be prepared to the point of identification, identified to the lowest taxonomic level possible, cataloged, and curated into the permanent collections of an accredited scientific institution.
- At the conclusion of the monitoring program, a report of findings shall be prepared to document the results of the monitoring program.

By following the above procedures, potential impacts to nonrenewable paleontological resources would be mitigated to a less than significant level.

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## **APPENDIX A**

### **RESUME**



## EXPERTISE

Paleontological Mitigation Reports

Paleontological Resource Monitoring

Fossil Collection, Salvage, Identification, and Curation

Federal, State, and Local Laws, Ordinances, Regulations, and Standards (LORS) Regarding Paleontological Resources

## EDUCATION

University of California, Berkeley, Ph.D., Paleontology, 2005.

University of Colorado, Boulder, *Magna cum Laude* B.A., Biology, Minor in Geology, 1999.

## TEACHING

Science Specialist, San Roque School, Santa Barbara, California, January 2006–June 2008.

Graduate Student Instructor, Department of Integrative Biology, University of California, Berkeley, August 2000–December 2000, January 2001–May 2001, and January 2003–May 2003.

## PROFESSIONAL RESPONSIBILITIES

Dr. Rieboldt is a paleontologist at LSA with 15 years of experience in the paleontology and geology fields. Dr. Rieboldt's field and laboratory experience includes working on research projects throughout California, Nevada, Utah, Colorado, Wyoming, Texas, and Alabama. She has 8 years of experience working with natural history collections in museums in California, Colorado, and Illinois and 7 years of experience as a paleontological consultant in California and Utah, monitoring for paleontological resources, and writing paleontological resource assessment reports and mitigation plans. She also has experience in monitoring the excavation and construction process on multiple subdivision developments and a natural gas pipeline, as well as monitoring drilling and coring operations.

Dr. Rieboldt prepares paleontological assessment reports, mitigation plans, and monitoring reports following the completion of paleontological mitigation monitoring. She provides guidance on the various federal, State, and local regulations and guidelines regarding paleontological resources as they apply to project around Southern California. She also is responsible for scheduling paleontological monitors on both large- and small-scale projects.

## PROJECT EXPERIENCE

### **State Route 710 North Study Los Angeles County, California**

LSA is leading an environmental team to prepare an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the State Route 710 (SR-710) North Study, which spans 23 cities and communities in Los Angeles County. This project, under the direction of the California Department of Transportation (Caltrans) in cooperation with the Los Angeles Metropolitan Transportation Authority (Metro), proposes to improve mobility and relieve congestion between State Route 2 and Interstates 5, 10, 210, and 605 in east/northeast Los Angeles and the San Gabriel Valley. Development of this project involves four alternatives: Freeway Tunnel, Light Rail, Bus Rapid Transit, and Transportation System Management/Transportation Demand Management. Dr. Rieboldt wrote the Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) for this project.

### **Digital 395 Project San Bernardino, Kern, Inyo, and Mono Counties, California; Douglas and Washoe Counties and Carson City, Nevada**

Dr. Rieboldt prepared the Paleontological Resources Monitoring and Mitigation Plan (PRMMP) for the Digital 395 Project, which involved the installation of over 590 miles of fiber-optic line along United States Highway 395 (US-395) on the east side of the Sierra Nevada.

## PROFESSIONAL EXPERIENCE

Paleontologist, LSA Associates, Inc., Irvine, California, April 2013–Present.

Project Manager, Department of Geological Sciences, California State University, Fullerton, and John D. Cooper Archaeological and Paleontological Center, Santa Ana, California, April 2012–April 2013.

Geologist, Geological Survey of Alabama, Tuscaloosa, Alabama, April 2010–February 2012.

Collections Assistant, Field Museum of Natural History, Chicago, Illinois, February 2009–February 2010.

Science Writer, University of California Museum of Paleontology, Berkeley, California, April 2009–November 2009.

Collections Assistant, Chicago Academy of Sciences, Chicago, Illinois, October 2008–February 2009.

Postdoctoral Research Associate, Center for Integrative Planetary Science, University of California, Berkeley, May 2005–December 2005.

Paleontological Consultant, Ric Windmiller Consulting, Auburn, California, June 2000–June 2005.

Graduate Student Researcher, Department of Integrative Biology, University of California, Berkeley, January 2004–December 2004.

Science Writer, University of California Museum of Paleontology, Berkeley, California, June 2003–December 2003.

Paleontological Consultant, California Department of Parks and Recreation, San Francisco, California, and University of California Museum of Paleontology, Berkeley, California, June 2001–December 2002.

Graduate Student Researcher, University of California Museum of Paleontology, Berkeley, California, August 2002–December 2002.

## PROJECT EXPERIENCE (CONTINUED)

Running from Barstow, California, to Reno, Nevada, the project route passed through lands managed by the United States Department of the Interior, Bureau of Land Management; the United States Department of Agriculture, Forest Service; the United States Department of Defense; the States of California and Nevada; and the lands of several Native American tribes. As such, this project was subject to multiple federal, State, and local regulations and policies regarding paleontological resources.

### **NBCUniversal Studios G Lot Project Universal City, Los Angeles County, California**

Dr. Rieboldt is currently preparing the Final Mitigation Monitoring Report for the NBCUniversal G Lot Project. This project has involved substantial excavation into the Middle Miocene (15.97 to 11.62 million years ago) Topanga Group and produced dozens of specimens of fossil leaves and bony fish, as well as a few whale specimens. As part of the mitigation monitoring report, Dr. Rieboldt is documenting project compliance with the applicable State and County requirements for paleontological resources. She is also identifying and describing the fossils recovered and their scientific significance.

### **NBCUniversal Studios Universal Hollywood Drive Project Universal City and Los Angeles, Los Angeles County, California**

Dr. Rieboldt prepared the Paleontological Resources Monitoring Plan (PRMP) for the NBCUniversal Studios Universal Hollywood Drive Project, located in the City of Los Angeles and Universal City, which is in unincorporated Los Angeles County. This project involves improving and widening Universal Hollywood Drive and includes excavation into Holocene to Late Pleistocene (less than 126,000 years ago) Young Alluvial Deposits and Middle Miocene (15.97 to 11.62 million years ago) Topanga Group. The PRMP outlines best practices for paleontological monitoring.

### **Foothill Parkway Westerly Extension Project City of Corona and unincorporated Riverside County, California**

The Foothill Parkway Westerly Extension Project, located in the City of Corona and unincorporated Riverside County, involves construction of approximately 2 miles of roadway with associated structures and connector road improvements to accommodate existing and future traffic demands in that area. The project includes excavation into paleontologically sensitive deposits of Holocene to Pleistocene Alluvial Deposits, the Paleocene Silverado Formation, and the Late Cretaceous Williams and Ladd Formations. Dr. Rieboldt prepared the Paleontological Resources Impact Mitigation Plan for this project, which outlines best practices for paleontological monitoring during project excavation, as well as procedures for preparing, curating, and documenting any recovered fossils.

## **PROFESSIONAL EXPERIENCE (CONTINUED)**

Paleontological Consultant, ECORP Consulting, Inc., Roseville, California, June 2002.

Paleontological Consultant, Jones & Stokes Associates, Sacramento, California, August 2001–January 2002.

Collections Assistant, University of California Museum of Paleontology, Berkeley, California, August 1999–December 1999.

Collections Assistant, University of Colorado Museum of Natural History, Boulder, Colorado, September 1997–May 1999.

## **PRESENTATIONS**

RECS (Research Experience in Carbon Sequestration) Workshop, (Birmingham, Alabama). June 6, 2011.

Geological Society of America Annual Meeting, (Denver, Colorado), “Taphonomy of Jupiter’s Icy Moon Europa.” November 7–10, 2004.

Bioastronomy Meeting: Habitable Worlds, (Reykjavik, Iceland), “Life, Past and Present, on Jupiter’s Icy Moon, Europa.” July 12–16, 2004.

35<sup>th</sup> Lunar and Planetary Science Conference (Houston, Texas), “Geosciences at Jupiter’s Icy Moons: The Midas Touch.” March 16, 2004.

Seventh Field Conference of the International Subcommission on Cambrian Stratigraphy: The Cambrian System of South China, (Guiyang, China), “Cambrian Inarticulate Brachiopods from Nevada and Texas.” August 2001.

Fourth International Brachiopod Congress (London, England), “Can Oxygen Isotopes from Inarticulate Brachiopods Resolve the Causes of Faunal Turnovers in the Cambrian?” July 10–14, 2000.

## **PRESENTATIONS (CONTINUED)**

## **PROJECT EXPERIENCE (CONTINUED)**

### **Pio Pico Energy Center Project San Diego County, California**

Dr. Rieboldt prepared the PRMMP and is overseeing the paleontological monitoring program for the Pio Pico Energy Center Project. This project involved the construction of a power plant for three General Electric natural gas-fired combustion turbine generators in an unincorporated area on Otay Mesa in San Diego County. Development of this project will include clearing and grading of the project area, construction of the power plant, and installation of natural gas lines and electricity transmission lines, all within paleontologically sensitive sediments of the Late Oligocene (23.03–28.1 million years ago) Otay Formation. The PRMMP followed all applicable State, County, and California Energy Commission (CEC) requirements and guidelines.

### **Vernola Marketplace Apartments Project: Phases A and B Jurupa Valley, California**

Dr. Rieboldt prepared the Paleontological Resources Assessment for Phases A and B of the Vernola Marketplace Apartments Project in the City of Jurupa Valley in Riverside County. This project involves the development of 597 multifamily residential units on approximately 25.7 acres of land near the intersection of Interstate 15 and 68<sup>th</sup> Street. It includes excavation into Holocene through Early Pleistocene deposits, some of which are sensitive for paleontological resources. The paleontological assessment documented the location and nature of the sensitive sediments and made recommendations to ensure project development does not adversely impact those resources.

### **SR-60/Theodore Street Interchange Project Moreno Valley, California**

LSA is conducting environmental technical studies for air quality and biological, cultural, and paleontological resources for the State Route 60 (SR-60)/Theodore Street Interchange Project in the City of Moreno Valley in Riverside County. The proposed project involves reconstruction of the local interchange at SR-60 and Theodore Street in order to reduce congestion, improve traffic flow, and accommodate forecasted traffic demands in and around Moreno Valley. Project development includes removal and replacement of the Theodore Street bridge over SR-60, auxiliary lanes along SR-60, and new entrance and exit ramps from SR-60 to Theodore Street. Dr. Rieboldt is preparing the PIR/PER for this project.

### **San Onofre Nuclear Generating Station Project San Diego County, California**

As part of an on-call contract with Southern California Edison (SCE), Dr. Rieboldt prepared the Paleontological Resources Assessment for the

Geological Society of America  
Cordilleran Section Meeting,  
(Berkeley, California),  
“Inarticulate Brachiopods from the  
Pioche Formation (Lower and  
Middle Cambrian), Nevada and  
their Relation to the Extinction of  
the Olenellida.” June 2–4, 1999.

## **PROJECT EXPERIENCE (CONTINUED)**

San Onofre Nuclear Generating Station (SONGS) Project, located on the Camp Pendleton Marine Corps Base in San Diego County. This assessment provided a review of the 17 geologic units within the surrounding SONGS facilities and their paleontological sensitivity ratings. Based on the paleontological sensitivities of these 17 geologic units and potential construction methods, the assessment also provided recommendations for mitigating impacts to paleontological resources that may be encountered during development of any future projects at the SONGS facilities.

### **Central Region Landfills – Frank R. Bowerman Landfill Wetlands Basin, Phase VIIIIC, and East Flank Landslide Projects Orange County, California**

Dr. Rieboldt is currently preparing the Final Mitigation Monitoring Report for the Wetlands Basin, Phase VIIIIC, and East Flank Landslide Projects. To date, LSA has collected over 100 fossil specimens from these combined projects, and the recovery of these specimens was completed without delay to the project schedule. The most notable specimens collected during the projects so far are several early Miocene (18–20 million years before present) whale fossils and leaves and molluscs from the Cretaceous (72–83 million years before present). As part of the mitigation monitoring report, Dr. Rieboldt is documenting project compliance with the applicable State and County requirements for paleontological resources. She is also identifying and describing the scientific significance of the fossils recovered.

### **Newport Coastal Coverage Solution Project Crystal Cove State Park Orange County, California**

The Newport Coastal Coverage Solution Project, located in Crystal Cove State Park in Orange County, involves installation of a building for communications equipment with associated access roads to improve safety communications in that area. The project includes excavation into paleontologically sensitive deposits of the Middle Miocene Topanga Group and possibly Middle to Late Miocene Monterey Formation. Because this project is within the boundaries of a State Park, Dr. Rieboldt obtained the required permit for paleontological field work on State lands and prepared the Paleontological Resources Impact Mitigation Plan (PRIMP), which outlines best practices for paleontological monitoring during project excavation, as well as procedures for preparing, curating, and documenting any recovered fossils.

**North County Corridor New State Route 108 Project**  
**Stanislaus County, California**

LSA is conducting environmental technical studies for the North County Corridor New State Route 108 (SR-108) Project in Stanislaus County. The proposed project involves relocating the current alignment of SR-108 in order to reduce congestion, improve traffic flow, and accommodate forecasted traffic demands in the northern part of Stanislaus County. LSA prepared the PIR/PER, and at the request of Caltrans, Dr. Rieboldt is preparing a preliminary Paleontological Mitigation Plan (PMP) for this project.

**Hidden Canyon Project**  
**Orange County, California**

Dr. Rieboldt prepared the Paleontological Mitigation Monitoring Report for the Hidden Canyon Project. LSA has collected specimens of sharks, rays, whales, and mollusks from the Early Miocene to Early Oligocene (15.97–33.9 Ma) Vaqueros Formation. As part of the mitigation monitoring report, Dr. Rieboldt documented project compliance with the applicable State and City of Irvine requirements for paleontological resources. She also identified and described the fossils recovered.

**Aldi Distribution Center Project**  
**Moreno Valley, Riverside County, California**

Dr. Rieboldt prepared the Final Paleontological Mitigation Monitoring Report for the Aldi Distribution Center Project in Moreno Valley in Riverside County. This project involved excavation into paleontologically sensitive Late Pleistocene deposits and produced specimens of horse (*Equus*), camel (*Hemiauchenia*) and giant ground sloth (*Megalonyx jeffersonii* or *Nothrotheriops shastensis*). For the final report, Dr. Rieboldt identified and described the recovered material and documented project compliance with the applicable State, City, and project-specific requirements for paleontological resources.

**City of Menifee On-Call Cultural Resources Studies Peer Review Projects**  
**Menifee, California**

LSA is under contract with the City of Menifee in Riverside County to provide on-call peer review of cultural and paleontological resources documents prepared for project compliance with applicable federal, State, City, and project-specific requirements and guidelines for cultural and paleontological resources. These documents may include field survey reports, assessments, mitigation monitoring programs, and final mitigation reports. Dr. Rieboldt is conducting the peer review of all paleontological documents under this contract.

**Ball Road Sanitary Sewer and Storm Drain Improvements Project**  
**Anaheim, California**

Dr. Rieboldt prepared the Paleontological Analysis Memorandum for Ball Road Sanitary Sewer and Storm Drain Improvements Project in the City of Anaheim in Orange County. This project involves the replacing and upgrading sewer and storm drain facilities along Ball Road and into Carbon Creek and demolishing an abandoned railroad bridge. It includes excavation into Holocene to Late Pleistocene deposits, some of which are sensitive for paleontological resources. The paleontological analysis documented the location and nature of the sensitive sediments and made recommendations to ensure project development does not adversely impact those resources.

**Howland's Landing Well Project**  
**Santa Catalina Island, California**

As part of an on-call contract with SCE, Dr. Rieboldt prepared the Paleontological Resources Assessment for the Howland's Landing Well Project on Santa Catalina Island in Los Angeles County. This emergency

project involved drilling exploration wells to determine where fresh water may be reached and then drilling, constructing, and testing the final well, which will provide fresh water for the Howland's Landing area. The project included excavation into Holocene to Late Pleistocene deposits and metamorphic rocks of the Late Cretaceous Catalina Schist, a part of the Franciscan Formation. Although the Pleistocene sediments that may be present at depth have the potential to contain scientifically important fossils, the excavation methods used for this project would preclude the recovery of paleontological resources. The paleontological assessment documented the location and nature of the sensitive sediments and, based on the excavation methods, recommended that no paleontological mitigation was required for the project.

### **Sesi Property Landfill Closure Project**

#### **San Diego, California**

Dr. Rieboldt prepared the Paleontological Mitigation Monitoring Report (PMMR) for the Sesi Property Landfill Closure Project. This project involved constructing a monolithic landfill cover with surface drainage facilities and other improvements for closure of landfilled auto-shredder waste on the Sesi property in the City of San Diego, San Diego County. Development of this project involved excavation into the paleontologically sensitive Otay and Lindavista Formations and therefore, required full-time monitoring during ground-disturbing activities in native deposits.

### **Morse Street Townhomes Project**

#### **Oceanside, California**

Dr. Rieboldt prepared the Paleontological Assessment for the Morse Street Townhomes Project. This project involved the development of 38 townhomes on a 2.3-acre parcel of land near the intersection of Morse Street and the Pacific Coast Highway in the City of Oceanside in San Diego County. Development of this project included clearing and grading to prepare the project area, construction of the various buildings, and installation of utilities.

### **Stratford Ranch Residential Project**

#### **Perris, California**

LSA conducted an archaeological and paleontological resources assessment for the Stratford Ranch Residential Project in the City of Perris in Riverside County. The proposed project includes a new residential community with 400 lots and a 15-acre Stockpile Plan on approximately 80 acres in northeastern Perris. Project development involves clearing and grading to prepare the project area, construction of a new road within the area, and installation of on-site storm drains, new water service, new sewer lines, new electric service, new natural gas lines, and a new telecommunication infrastructure system to serve the proposed residential uses. Dr. Rieboldt prepared the paleontological resources section of this assessment.

### **34202 Del Obispo Street Project**

#### **Dana Point, California**

LSA conducted environmental technical studies for the 34202 Del Obispo Street Project in the City of Dana Point in Orange County. This mixed-use project involves the development of a residential community, commercial space, and a small amount of parkland/open space. Dr. Rieboldt prepared the Paleontological Resources Assessment for this project.

### **Spieker Continuing Care Retirement Community Project**

#### **San Juan Capistrano, California**

Dr. Rieboldt prepared the Paleontological Resources Assessment as one of several environmental technical studies LSA conducted for the Spieker Continuing Care Retirement Community Project in the City of San

Juan Capistrano in Orange County. This project involves the development of a Continuing Care Retirement Community designed for residents over the age of 60 years. Development of this project includes the construction of independent living residences, community buildings, and a health care center.

**State Route 120/McKinley Avenue Interchange Project  
Manteca, California**

LSA is conducting environmental technical studies for the State Route 120 (SR-120)/McKinley Avenue Interchange Project in Manteca in San Joaquin County. The proposed project involves the construction of a new interchange at SR-120 and McKinley Avenue in order to reduce congestion, improve traffic flow, and accommodate forecasted traffic demands in and around the City of Manteca. Dr. Rieboldt assisted in the preparation of the PIR/PER and prepared the PMP for this project.

**Kaiser Bellflower East Center Demolition Project  
Los Angeles County, California**

The proposed project involves demolition of the existing Administration Building and East Center Wing of the Kaiser Bellflower Medical Center and remodeling of the exterior and lobby of the West Wing of the Medical Center. Excavation activities associated with this project are anticipated to reach 15–20 feet below ground surface. Dr. Rieboldt wrote the Paleontological Resources Memorandum and the PRIMP for this project.

**Vancouver Street Sewer Extension Project  
Carlsbad, California**

Dr. Rieboldt prepared the PRMMP for the Vancouver Street Sewer Extension Project. This project involved the extension of an existing sewer line from Vancouver Street to Via de Canto through Hidden Canyon Community Park in the City of Carlsbad in San Diego County. Development of this project included traditional excavation, as well as horizontal directional drilling, for the installation of the sewer line segments.

**Durfee Avenue Grade Separation Project  
Pico Rivera, California**

LSA conducted environmental technical studies for the Durfee Avenue Grade Separation Project in the City of Pico Rivera in Los Angeles County. The project proposes to lower Durfee Avenue below the Union Pacific Railroad (UPRR) tracks to improve safety for vehicular, rail, and pedestrian traffic along Durfee Avenue and nearby streets and the railroad right-of-way. Project development includes lowering Durfee Avenue, Walnut Avenue, and Stephens Street; raising the UPRR tracks; and relocating various wet and dry utilities. As due diligence for the client, Dr. Rieboldt prepared the paleontological assessment for this project.

**Rock Island and Hyla Pipe Vaults Project  
San Luis Obispo County, California**

LSA conducted a paleontological resources monitoring for the Rock Island and Hyla Pipe Vaults Project in unincorporated San Luis Obispo County. This project involved the installation of two buried concrete pipe vault crossings on the Arroyo Grande Oil Field operated by Freeport McMoran Oil and Gas. Dr. Rieboldt oversaw this project from beginning to end, preparing the Paleontological Resources Impact Mitigation Program, scheduling and supervising the paleontological monitoring, and preparing the final Paleontological Resources Mitigation Monitoring Report.

**State Route 94/State Route 125 Interchange Branch Connector Project**  
**San Diego County, California**

LSA conducted cultural and paleontological resources assessments for the State Route 94/State Route 125 (SR-94/SR-125) Interchange Branch Connector Project in San Diego County. The proposed project involves the construction of a freeway-to-freeway connector to allow direct south-to-east movement for the SR-94/SR-125 interchange in order to improve regional circulation and reduce traffic on local streets in the Cities of La Mesa and Lemon Grove, and in the unincorporated community of Spring Valley. Project development includes construction of a freeway connector between southbound SR-125 and eastbound SR-94, auxiliary lanes on those freeways, and new noise barriers and retaining walls, as well as modifications to existing structures. Dr. Rieboldt prepared the PIR/PER for this project.

**Surfside Inn Pedestrian Overcrossing Project**  
**Dana Point, California**

LSA conducted cultural and paleontological resources assessments for the Surfside Inn Pedestrian Overcrossing Project in the City of Dana Point in Orange County. The proposed project involves replacement and rehabilitation of the pedestrian overcrossing across the Pacific Coast Highway and Metrolink right-of-way from the Capistrano Surfside Inn to Doheny State Beach. Dr. Rieboldt prepared the paleontological resources assessment.

**Adelanto Solar Project**  
**San Bernardino County, California**

Dr. Rieboldt prepared a paleontological resources analysis report for the Adelanto Solar Project in San Bernardino County. This report included a summary of the geology and potential paleontological resources of the project area, results from a paleontological locality search through the San Bernardino County Museum, and recommendations for mitigating potential impacts to paleontological resources.

**North Star Solar Project**  
**Fresno, California**

LSA conducted a paleontological resources assessment for the proposed North Star Solar Switching Station and Generation Tie Line (Gen Tie) Project in Fresno County. The purpose of this project is to generate and transmit renewable solar electricity from proven technology at a competitive cost, with low environmental impact, and deliver it to market as soon as possible. The project consists of an approximately 1.5-mile-long gen tie line that will tie into a new 115-kilovolt (kV) Switching Station, which is an expansion of the existing Pacific Gas and Electric (PG&E) Mendota substation. Project construction work will involve location preparation, foundation installation, power pole placement, generation line installation, and erection and connection of the gen tie line and switching station equipment. Dr. Rieboldt prepared the Paleontological Resources Assessment for this project.

**Seaside Senior Living Project**  
**Seaside, Monterey County, California**

Dr. Rieboldt conducted a paleontological analysis for the Seaside Assisted Living Facility, which sought to construct an Assisted Living Facility, a Memory Care Facility, a Co-Housing Facility, and associated amenities on a 5.47-acre area in the City of Seaside in Monterey County. Dr. Rieboldt also prepared the paleontology section of the Initial Study/Mitigated Negative Declaration for this project.

## **PUBLICATIONS**

Elrick, M., S. Rieboldt, M. Saltzman, and R.M. McKay

2011. Oxygen-isotope trends and seawater temperature changes across the Late Cambrian Steptoean positive isotope excursion (SPICE event). *Geology* 39(10): 987-990.

Lipps, J.H., and S.E. Rieboldt

2005. Habitats and taphonomy of life on Europa. *Icarus* 177:515-527.

Parham, J.F., and S.E. Rieboldt

2005. *Contia tenuis* (Sharp-tailed snake): Reproduction. *Natural History Note. Herpetological Review* 36(4):456.

## **SELECTED REPORTS**

*Mount Diablo State Park Paleontological Resources Inventory and Management Recommendations.* Prepared for the State of California Department of Parks and Recreation, Bay Area District. December 2002.

*Paleontological Resources Assessment for Bayside Covenant Church, Sierra College Boulevard and Cavitt-Stallman Road, City of Roseville, Placer County, California.* Prepared for Bayside Covenant Church. June 2002.

*Paleontological Resources Assessment for the Riverbend Park Project, Lompoc, California.* Prepared for the City of Lompoc. January 2002.

*Recommendations for Compliance with Regulatory Requirements and Mitigation Measures for Paleontological Resources for the Mountain Park Community Development Project.* Prepared for the Irvine Company. November 2001.

*Paleontological Resources Assessment and Mitigation Measures for the Sacramento Regional County Sanitation District 17-Mile Interceptor Project, Sacramento and Yolo Counties, California.* (Co-authored with Jere Lipps, Ph.D.) Prepared for the Sacramento Regional County Sanitation District on behalf of Jones & Stokes Associates, Inc. October 2001.

## **APPENDIX B**

# **FOSSIL LOCALITY SEARCH RESULTS FROM THE NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY**

**CONFIDENTIAL**

**NOT FOR PUBLIC DISTRIBUTION**

Natural History Museum  
of Los Angeles County  
900 Exposition Boulevard  
Los Angeles, CA 90007

tel 213.763.DINO  
www.nhm.org



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18 December 2015

McKenna et al.  
LSA Associates, Inc.  
20 Executive Park, Suite 200  
Irvine, California 92614

Attn: Sarah Rieboldt, Ph.D., Paleontologist

re: Paleontological Resources Records Check for the proposed Synergy Oil Field Restoration Project, LSA Project # ZZZ2780A1, in the City of Long Beach, Los Angeles County, project area

Dear Sarah:

I have thoroughly searched our paleontology collection records for the locality and specimen data for the proposed Synergy Oil Field Restoration Project, LSA Project # ZZZ2780A1, in the City of Long Beach, Los Angeles County, project area as outlined on the portion of the Los Alamitos USGS topographic quadrangle map that you sent to me via e-mail on 3 December 2015. We have no vertebrate fossil localities that lie directly within the outline boundaries of the proposed project area, but we do have localities nearby from sedimentary deposits similar to those that probably occur at depth in the proposed project area.

Surficial material in the proposed project area consists of artificial fill on top of deposits of younger Quaternary Alluvium derived from the San Gabriel River that currently flows just to the southeast. These deposits are unlikely to contain significant vertebrate fossils, at least in the uppermost layers. At depth, however, older Quaternary sediments that contain significant fossil vertebrate materials may be encountered. Our closest fossil vertebrate locality from older Quaternary deposits is locality LACM 3757, just west of north of the proposed project area south of 7<sup>th</sup> Street and east of the Pacific Coast Highway, that produced fossil specimens of eagle ray, *Myliobatis*, skate, Rhinobatoidea, white shark, *Carcharodon*, blue shark, *Prionace*, requiem shark, Carcharhinidae, surfperch, *Damalichthys* and *Rhacochilus*, croaker, *Genyonemus*, pond turtle, *Clemmys*, diving duck, *Chendytes*, loon, *Gavia*, dog, *Canis*, sea otter, *Enhydra*, horse,

*Equus*, camel, *Hemiauchenia*, and pocket gopher, *Thomomys*. Northwest of the proposed project area, along 7<sup>th</sup> Street west of the Pacific Coast Highway, we have locality LACM 6746 that produced fossil mammoth, *Mammuthus*, at shallow but unstated depth.

Just north of due west of the proposed project area we have vertebrate fossil localities near or on the beach. Near the intersection of Grand Avenue and East Livingston Drive, locality LACM 2031 produced specimens of fossil bison, *Bison antiquus*, at about 25 feet from the top of the bluff. Locality LACM 7739, between the parking lot and the beach at Bluff Park at a depth of about 55 feet below the surface, produced a diverse suite of marine vertebrate fossils including dusky shark, *Carcharhinus*, soupfin shark, *Galeorhinus galeus*, hammerhead shark, *Sphyrna*, leopard shark, *Triakis semifasciata*, horn shark, *Heterodontus francisci*, stingray, *Dasyatis*, eagle ray, *Myliobatis californica*, skate, *Raja*, guitarfish, *Rhinobatos productus*, dogfish, *Squalus acanthias*, angel shark, *Squatina californica*, midshipman, *Porichthys notatus*, cusk-eel, *Chilara taylori*, surfperches, *Cymatogaster aggregata*, *Damalichthyes*, *Embiotoca jacksoni*, *Hyperprosopon argenteum*, *Micrometrus aurora*, and *Phanerodon furcatus*, goby, Gobiidae, croaker, *Genyonemus lineatus*, queenfish, *Seriphus politus*, barracuda, *Sphyrna argentea*, sanddabs, *Citharichthys sordidus*, *Citharichthys stigmaeus*, sole, *Glyptocephalus zachirus*, *Lyopsetta exilis*, sculpin, Cottidae, rockfish, *Sebastes goodei*, herring, Clupeidae, and undetermined mammal, Mammalia. Just northwest of locality LACM 7739 we have another locality, LACM 1005, opposite Bixby Park at approximately 17<sup>th</sup> Place, that produced specimens of fossil mammoth, *Mammuthus columbi*, and ground sloth, *Nothrotheriops shastensis*, at a depth of approximately 60 feet from the surface.

Surface grading or very shallow excavations in the proposed project area probably will not uncover significant vertebrate fossil remains. Excavations that extend down below about five feet, however, may well encounter significant fossil vertebrate specimens. Any substantial excavation below the uppermost layers in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Sediment samples from the proposed project area should also be collected and processed to determine the small fossil potential of the site. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,



Samuel A. McLeod, Ph.D.  
Vertebrate Paleontology

enclosure: invoice