

Appendix G
Cultural Resources Technical Study

**PHASE I CULTURAL RESOURCES
SURVEY REPORT
E & B OIL FIELD DEVELOPMENT PROJECT
HERMOSA BEACH, CALIFORNIA**

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MANAGEMENT SUMMARY

E&B Natural Resources Management Corporation (E&B) is proposing the E&B Oil Development Project (Proposed Project) on a 1.3-acre site located in the City of Hermosa Beach (City). As Applicant, E&B, proposes onshore drilling and construction of a production site that would utilize directional drilling of 30 wells to access the oil and gas reserves in the tidelands area of the City (as granted by the State of California to the City) and in an onshore area known locally as the uplands.

As proposed, the fully developed Project will consist of ground disturbance including the construction of wells, oil processing and maintenance plant facilities, and underground oil, and gas pipelines. The oil production and processing facilities will be physically located at 555 6th Street, an existing City maintenance yard. New City maintenance facilities will be relocated at 552 11th Place. At the request of Marine Research Specialists (MRS) of Ventura, California, on behalf of the City, Applied EarthWorks, Inc. (Æ) conducted cultural resources investigations, including an archaeological and a paleontological site sensitivity assessments, as well as an architectural evaluation of a single standing structure within the Proposed Project sites. This study is in support of the Project Environmental Impact Report (EIR) and has been prepared in accordance with the California Environmental Quality Act (CEQA). The City of Hermosa Beach is the lead agency under CEQA.

An archaeological literature and records search was undertaken and shows that no cultural resources were previously recorded within the current Proposed Project site. One standing structure, elements of which were constructed before 1927, was evaluated as a historical resource. Several additions have been made to this structure and it lacks the architectural integrity required for significance. The building does, however, contain remnants of a furnace associated with the construction and operation of the City Dump. This facility, including the dump, was operational from the 1920s to the 1940s and is evaluated herein as an archaeological resource. Pleistocene San Pedro Sand (Qsp) underlying the Proposed Project sites and pipelines has a high paleontological resources potential. These deposits lie beneath the surficial deposits in the area at varying depths and the likelihood of project-related grading reaching San Pedro Sand deposits seems unlikely. However, if excavations are designed to exceed 45 feet within the City Dump/landfill, or 15 ft beneath City streets during pipeline installation, the potential for encountering fossilized remains increases substantially.

Additionally, the Native American consultation process did not indicate the presence of Native American cultural resources in the immediate Proposed Project site. However, local Native American groups expressed concern and consider the Proposed Project within the traditional tribal boundaries. Responses to the consultation process are presented in Chapter 3 and Appendix C.

On October 28, 2013, a survey of the Proposed Project site was performed by Æ Historical Archaeologist Keith Warren. The archaeological survey included visits to the proposed construction sites and pipeline locations. The building was inspected and a Building, Structure, Object Record was prepared on October 30, 2013, by Michael Kay, M.A., RPA Historical Archaeologist in Æ's Pasadena office. A paleontological records search was requested on November 12, 2013, and the site's paleontological sensitivity was assessed by Heather Clifford,

Staff Paleontologist under the guidance of Jessica DeBusk, Paleontological Program Manager. M. Colleen Hamilton, M.A., RPA, Senior Historical Archaeologist and Architectural Historian served as Project Manager and Principal Investigator.

Upon completion of this study, a copy of this report will be placed on file at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System, housed at California State University, Fullerton.

1 INTRODUCTION

1.1 PROJECT LOCATION AND DESCRIPTION

E&B Natural Resources Management Corporation (E&B) is proposing an oil development project (Proposed Project) on two parcels and along two linear pipelines in the City of Hermosa Beach (City). E&B is the Proposed Project Applicant, while the City is the lead agency under the California Environmental Quality Act (CEQA). The Proposed Oil Production site is to be located at 555 6th Street and is to be bounded to the east by Valley Drive and the Veterans Parkway, to the south by 6th Street, and to the west by Cypress Street. To the north is light manufacturing and farther to the north is residential development and 8th Street (Figure 1). The Proposed Oil Production site is owned by the City and is currently used as the City Public Works Maintenance Yard. The Applicant has leased the Proposed Oil Production site from the City for the implementation of the Proposed Project. The Proposed Project will result in the relocation of the City Maintenance Yard to City-owned property (New Public Works Facility) west of Valley Drive, adjacent to and south of Hermosa Beach City Hall (Figure 2). Three proposed linear pipelines are to transport processed crude oil and gas from the Proposed Oil Production site to prospective purchasers.

E&B proposes the development of an onshore drilling and production site that will utilize directional drilling at 30 well locations to access oil and gas reserves in the tidelands and in an onshore area known locally as the uplands. Exploitation of the tidelands was granted by the State of California to the City in 1921. Both of the Proposed Project sites are located within the Torrance Oil Field within the jurisdiction of the City. The construction at both sites will result in the demolition of existing buildings, ground-disturbing activities, and the installation of offsite underground pipelines (see Figure 2).

Oil drilling and production in the Los Angeles Basin has a long history. According to the California Division of Oil, Gas, and Geothermal Resources (DOGGR) database, almost 30,000 oil wells have been drilled in the Los Angeles Basin in the last 100 to 150 years. The Proposed Project will drill into the western edge of the Torrance Oil Field. Most of the production from the Torrance Field in the past has been generated from wells drilled in the City of Torrance, but some drilling has occurred in the cities of Redondo Beach and Hermosa Beach. There have been approximately 1,500 wells drilled into the Torrance Field historically (DOGGR 2013).

Although the Proposed Oil Production site is relatively flat, it is underlain by wind-blown sand dunes that previously covered the region, resulting in uneven ground due to dune formation. In the 1920s, the northeastern portion of the Proposed Oil Production site contained a large depression. This pit may have been a natural hollow, a sand mining site, or may have been an excavated pit for landfill purposes. Whatever its origin, by the mid 1920s, the City located a dump and refuse burner at the site and by 1947, the depression was filled. The resulting former landfill is estimated to be 29 to 45 feet deep and recent soil bores indicate that the dump contains glass, porcelain, and ceramics toward the bottom and miscellaneous metals, wires, glass, and other materials toward the top (NMG Geotechnical Inc. 2012:10). Lead and total hydrocarbons are also present in the mid range sediments.

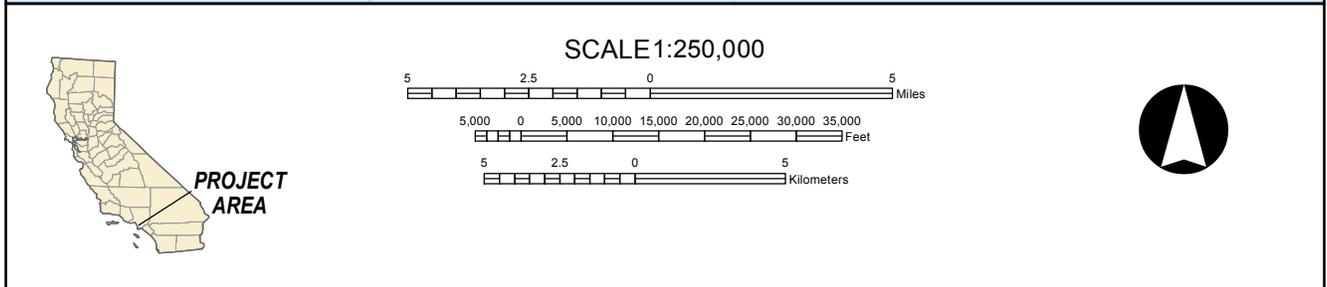
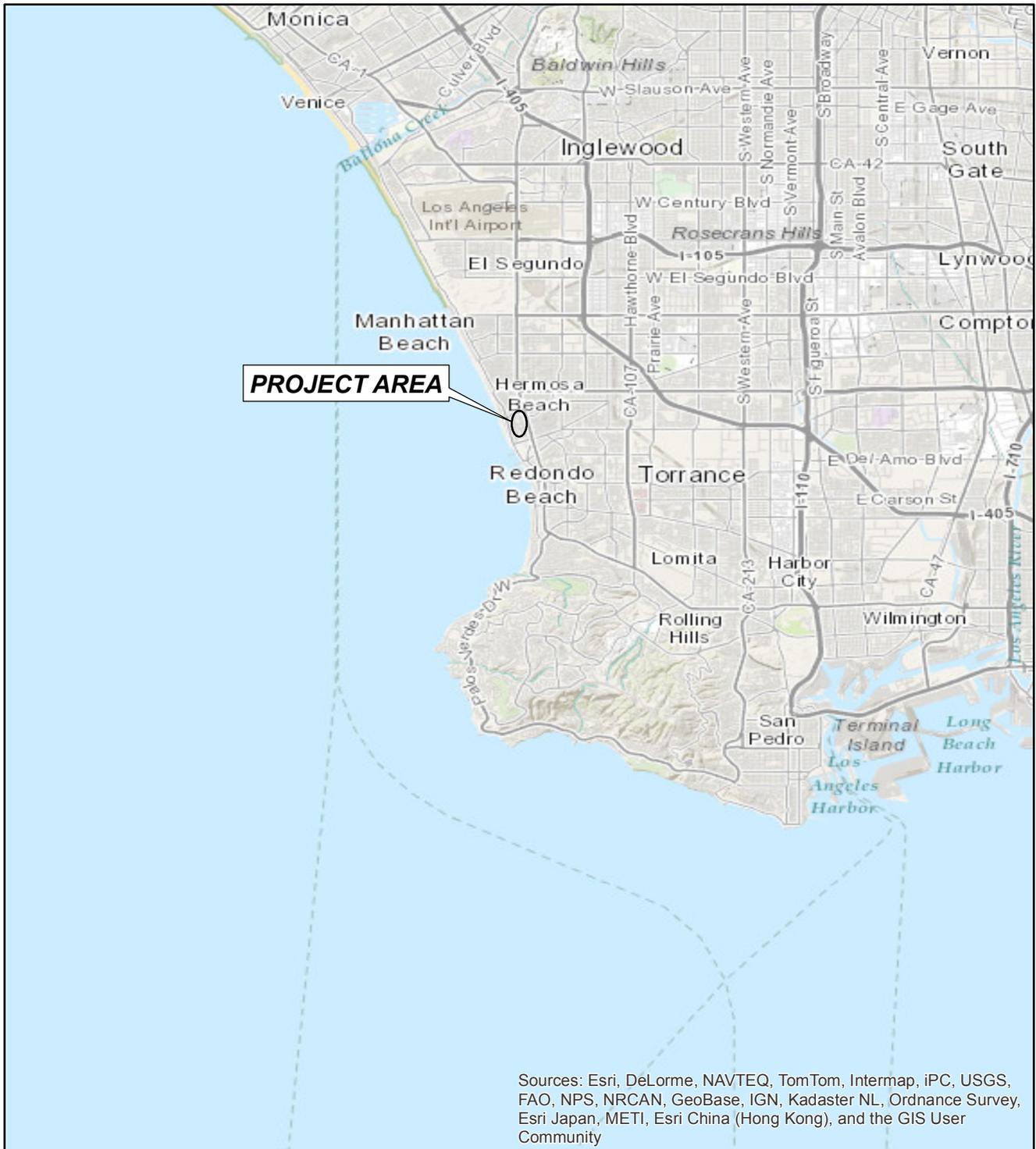
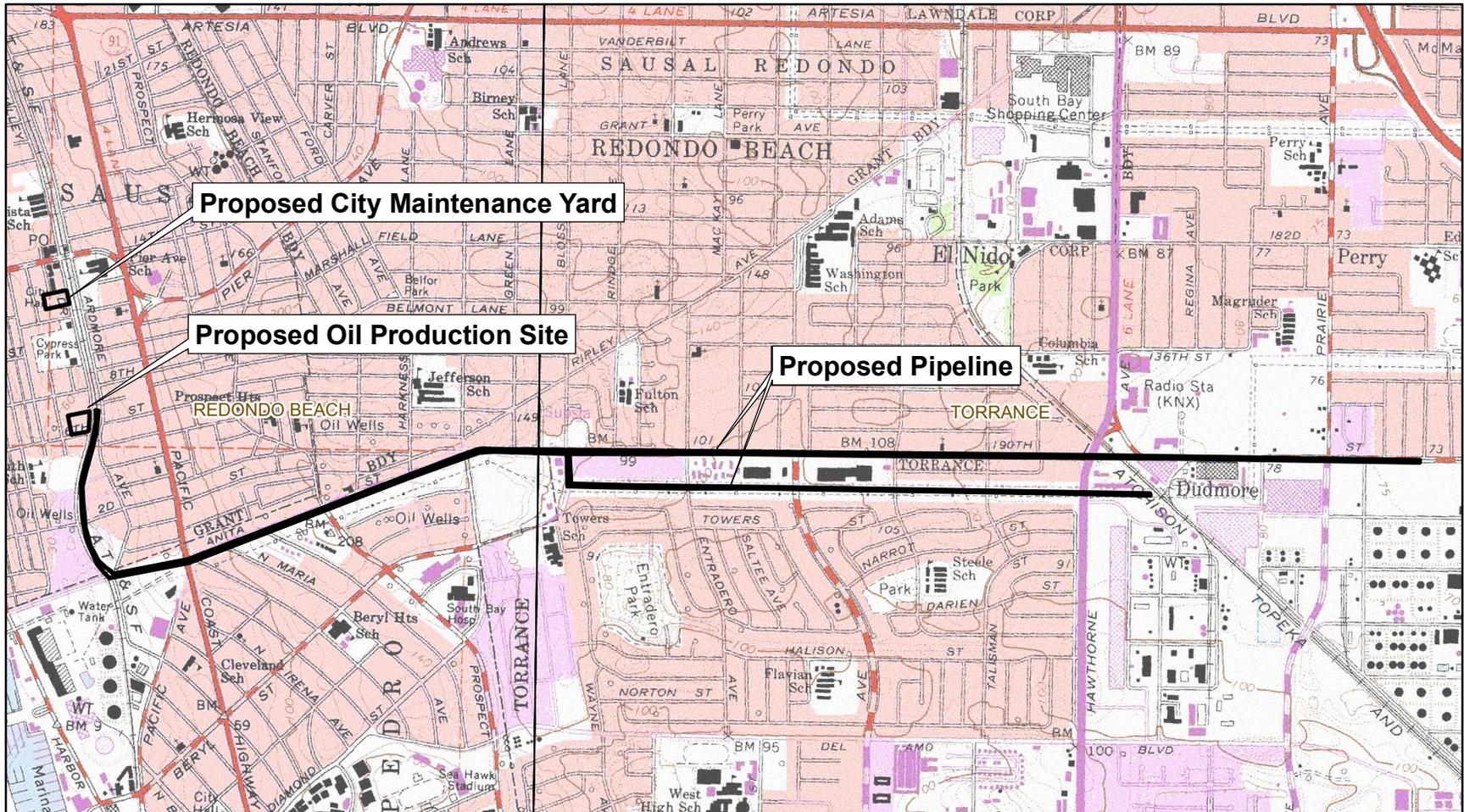
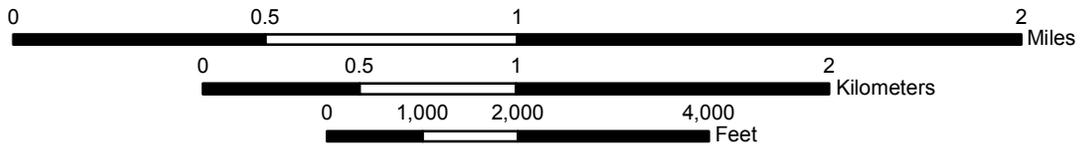


Figure 1 Project vicinity map.



USGS 7.5 Minute Topographic Quadrangle
 Redondo Beach, CA, 1963 (1981)
 Torrance, CA, 1964 (1981)
 Township 3S, Range 14W, Unsectioned
 Township 4S, Range 14W, Unsectioned



1:24,000



Figure 1.2 Project location on USGS Redondo Beach and Torrance quadrangles.

In 1930, the Stinnett Oil Well No. 1 was drilled in the western portion of the Project site beyond the landfill. The oil well was abandoned in 2005 consistent with the standards of DOGGR at that time (www.conservation.ca.gov/dog). If remnants of the early oil drilling phase of development are still present and they retain integrity from the historic period of development, they could potentially qualify for listing on the California Register of Historic Resources (CRHR) as a significant historical resource.

By 1927, a structure had been built on the Proposed Oil Production site as shown on the Sanborn Map for that year. This building, albeit modified, remains on site and is assessed in Chapter 5 below. Additional buildings were constructed during the mid-1940s, with the last building erected in the 1980s. Since the 1990s, with the exception of the addition of trailers, storage containers, and sheds, the Proposed Oil Production site has generally remained unchanged.

The Proposed Oil Production site is currently occupied by the City Maintenance Yard and its development will require the relocation of the maintenance yard and demolition and/or removal of all structures. The Public Works Facility will be relocated to 552 11th Place, south of its intersection with Bard Street (Proposed Public Works site). Construction at the new Public Works Facility will consist of building a two-level structure to accommodate a City Yard on the upper deck and parking for 129 cars on the lower deck. The overall floor area of the deck is approximately 48,000 gross square feet. The Vehicle Maintenance facility will be placed in the southwest corner of the Yard. The City Yard offices, gym, restrooms, lockers, and kitchen/break room will be set in their own facility at the northwest corner of the deck. This property was formerly occupied by Olsen Lumber as early as 1927, and continued in this capacity until at least 1932. Between 1942 and 1951, the property was used as a fabric weaving/silk mill. Between 1951 and 1959, the property use changed to that of an upholstery mill. By 1959, Imperial Mills, also an upholstery manufacturer, occupied the site and continued in operation until at least 1978. In that year, the self-storage facility currently located on the property was constructed (Converse Consultants 2005, iii, 8-12). It is assumed that the milling operations buildings were demolished at this time and replaced with the modern current storage facility buildings. Pipelines will be placed below city roads and are likely to be in areas of previous disturbance. The City of Hermosa Beach was developed in the early 1900s, when streets were laid out and little has changed since.

Other cultural resources in the region potentially relate to prehistoric site utilization, historic ranching, industrial land use (i.e., landfill, lumber yard/ mill), early residential occupation, and areas of Native American cultural concern. These potential resources are discussed in greater detail in Chapter 4.

1.2 SUMMARY OF FINDINGS

An archaeological literature and records search indicates that no previously-recorded cultural resources are present within the current Proposed Project sites. The paleontological records search also suggests the potential for fossilized remains to be encountered is low assuming depths of excavations do not exceed 45 feet beneath the City Dump/landfill or 15 feet below the streets.

An archaeological survey was undertaken of the Proposed Project sites and pipeline locations and a building inspection was made. The City Dump/landfill site depicted on the 1927 Sanborn

Map is over 50 years of age and may be eligible for the CRHR under Criteria 1 and 4. Two archaeological components of this site exist, including buried deposits containing glass, porcelain and ceramics, and elements of a brick furnace which remains extant inside the maintenance building on site. This property may also be considered important at the local level per the City of Hermosa Beach Municipal Code, Chapter 17.53: Historic Resources Preservation. The remnants of the furnace are surrounded by modern additions. Structurally, this building does not retain integrity and is not considered a significant architectural resource. The brick furnace remaining extant inside does, however, have the potential to yield information important in history and is potentially eligible under Criterion D. Remnants of the Stinnett Oil Well No. 1 may also be present, albeit capped and no longer visible. Native American monitoring has been requested by local tribes.

1.3 PROSPECTUS

Chapter 1 has provided an overview of the Proposed Project sites and a summary of survey findings. Chapter 2 details the regulatory context within which the Proposed Project is evaluated, while Chapter 3 discusses the background research gathered during this study. Chapter 4 presents the environmental setting and historic context within which resources are assessed. Chapter 5 details the results of investigations, and management recommendations for significant cultural and natural resources are offered in Chapter 6. Correspondence regarding the records and literature search and contact of local museums and historical societies are found in Appendix A. Appendix B contains the results of the paleontological resources records search/review. Native American consultation is presented in Appendix C. Finally, Appendix D contains the Department of Parks and Recreation records.

2 REGULATORY CONTEXT

Archaeological and paleontological resources are being evaluated to determine if the Proposed Project will have any significant environmental impacts on these resource types. The CRHR is an authoritative guide to be used by state and local agencies, private groups, and citizens to identify and evaluate the state's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The criteria for listing resources on the CRHR are based on those developed by the National Park Service for listing on the National Register of Historic Places (NRHP). The CRHR was established to evaluate a broader range of resources that better reflect the history of California. Under CRHR, a historical resource is considered significant if it:

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

According to CEQA Guidelines, a resource shall generally be considered “historically significant” if the resource meets the criteria for listing on the CRHR. The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources [pursuant to Section 5020.1(k) of the Public Resources Code], or identified in a historical resources survey [meeting the criteria in Section 5024.1(g) of the Public Resources Code] does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

2.1 SIGNIFICANCE CRITERIA

Under CEQA, an impact on a historical resource is considered significant if the impact lessens the integrity of the qualities of the properties that qualify it for the CRHR. If the proposed project may cause damage to a significant historical resource, the project may have a significant effect on the environment. Cultural resources are districts, buildings, sites, structures, areas of traditional use, or objects with historical, architectural, archeological, cultural, or scientific importance. They include paleontological resources, archeological resources (both prehistoric and historic), historic architectural resources (physical properties, structures, or buildings and hardscape and landscape elements), and traditional cultural resources (those important to living Native Americans for religious, spiritual, ancestral, or traditional reasons).

The CEQA Guidelines, Section 15064.5, provide significance threshold criteria for determining a substantial adverse change to the significance of a cultural resource:

- Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- The significance of a historical resource is materially impaired when a project: Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the PRC or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the PRC; or
- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA.

CEQA Guidelines §15064.5 (d) prohibit disturbance of any human remains, including those interred outside of formal cemeteries, without proper treatment and reburial with appropriate dignity. Human remains must also be treated in compliance with Health and Safety Code, Section 7050.5 and Public Resources Code, Section 5097.98.

Paleontological resources are also afforded protection under CEQA. Appendix G (V) of the CEQA Guidelines indicates that a project would have a significant impact on paleontological resources if it will disturb or destroy a unique paleontological resource or site or unique geologic feature. Section 5097.5 of the California Public Resources Code prohibits knowing and willful excavation, removal, destruction, injury, and defacement of any paleontological site or feature on public lands (lands under jurisdiction of state, county, city, district, authority, or public corporation, or any agency thereof), except where the agency with jurisdiction has granted express permission. Section 30244 requires reasonable mitigation measures for impacts on paleontological resources that occur as a result of development on public lands.

According to CEQA, indirect impacts to cultural resources result primarily from the effects of project-induced population growth. Such growth can result in increased construction as well as increased recreational activities that can disturb or destroy resources.

2.1.1 Local Guidelines

In addition to the CEQA guidelines, the *City of Hermosa Beach Municipal Code, Chapter 17.53: Historic Resources Preservation* provides guidance for the evaluation of resource significance at the local level. The ordinance is intended to identify resources types that are potentially important and ensure the long-term protection and use of historical resources, such as buildings and structures, sites, and places within the City that reflect special elements of the City's architectural, artistic, cultural, historical, political, and social heritage.

Per this Code, Sections 17.53.070 through 17.53.120, a historic resource may be designated a landmark if it meets one or more of the following criteria:

- A. It exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, or architectural history; or
- B. It is identified with persons or events significant in local, state, or national history; or
- C. It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
- D. It is representative of the notable work of a builder, designer, or architect; or
- E. Its unique location or singular physical characteristic(s) represents an established and familiar visual feature or landmark of a neighborhood, community, or the City (Ord. 98-1186 §4, 11/10/98 [City of Hermosa Beach 2013]).

Based on these criteria, identified cultural resources were assessed for local significance important to the City and community of Hermosa Beach.

3 BACKGROUND RESEARCH

3.1 ARCHIVAL RESEARCH

In October and November of 2013, Æ archaeologists Keith Warren and Michael Kay conducted archival research for historical documents pertaining to the Proposed Project sites. Websites considered included the Library of Congress, American Memory (<http://memory.loc.gov>), the online Archive of California, (<http://www.oac.cdlib.org/>), the Los Angeles Public Library (<http://www.lapl.org/>), the California Digital Newspaper Collection, (<http://www.cdnc.ucr.edu>) and Melvyl, the Catalog of the University of California Libraries (<http://melvyl.cdlib.org>). The City of Hermosa Beach website (<http://www.hermosabch.org>) was also consulted as was the Hermosa Beach Historical Society webpage at <http://www.hermosabeachhistorical.society.org>. Mr. Warren visited the Hermosa Beach Library, and the Los Angeles County Assessors Archive and reviewed city directory and census data at Ancestry.com. Mr. Kay contacted the Hermosa Beach Historical Society on October 29 and November 1, 2013, but was unable to reach anyone. He visited the Society on October 30, 2013, but the Society was closed during posted hours. On November 4, 2013, he wrote a letter formally requesting information about the Hermosa Beach refuse furnace and dump site. A response was not received.

Additionally, the historical data (including aerial photographs and topographic maps) presented by E&B Natural Resources in the Proposed Project Planning Application, and the Converse Consultants, Phase I Environmental Site Assessment Report, 552 11th Place was reviewed. Much useful information was drawn from these sources. Æ contacted the City of Hermosa Beach Community Development Department. The information recovered from archival and secondary sources was compiled and used to formulate a context for evaluation of historical resources identified within the Proposed Project. Chapter 4 summarizes the results of the archival research.

3.2 ARCHAEOLOGICAL LITERATURE AND RECORDS SEARCH

A records search of the California Historical Resources Information System at the South Central Coastal Information Center (SCCIC) housed at the California State University, Fullerton was performed on October 11, 2013 to identify previous investigations and recorded archaeological sites within a one-half-mile radius of the Proposed Project sites. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL) the California Register of Historic Places (CAL REG), the NRHP, and the California State Historic Resources Inventory (HRI) were reviewed. The following discussion provides a summary of those findings.

One archaeological site (19-001872) was identified within the one-half-mile radius search area as discussed in greater detailed below. No previously recorded archaeological sites are located within the Proposed Project site. No sites are listed on the Archaeological Determination of Eligibility (DOE) list. The HRI lists three properties that have been evaluated for historical significance within the records search area (19-186114, 19-0186751, 19-186927), but no previously identified above-ground historic resources are located within the Project site.

- 19-186114 consists of a plaque located at the southeast corner of Harbor Drive and Yacht Club Way, Redondo Beach. The plaque marks the location of an old salt lake and reads “This marker locates the site near which the Indians and early California settlers came to obtain their salt, which at many times was more valuable than gold.” The plaque was erected in 1955 and is located 0.5 mile south of the proposed E&B oil production facility.
- 19-186927 is the Hermosa Valley (formerly Valley Vista) School built in the 1950s and located at 1645 Valley Drive, approximately 0.2 mile north of the proposed New Public Works Facility.
- 19-0186751, is the Hermosa Beach Community Center, a Modernistic/Art Deco building originally built in 1911 and located at 710 Pier Avenue, approximately 0.15 mile northeast of the proposed New Public Works Facility.

The CAL REG lists two historic properties within the records search area. These are properties determined to have an NRHP status of 1 or 2, a CHL numbering 770 and higher, or a PHI listed after January 1, 1998. These properties are the Hermosa Beach Community Center (described above), and the Clark Building constructed in 1937 and located at 861 Valley Drive, approximately 0.2 mile north of the proposed E&B Oil Production facility. No other properties are listed on the PHI, NRHP, or CHL.

3.3 PREVIOUS INVESTIGATIONS

Thirteen cultural resources studies have been conducted within the records search radius. Of these, one is a large survey that included the current Proposed Project sites. LA2094 was a Phase I Cultural Resources Literature Search for the West Basin Water Reclamation Project (ERA 1993). The survey covered the entire current Proposed Project area. ERA concluded that the vast majority of the 42-mile-long proposed pipeline route was already developed as highways, streets, and urban landscapes. A formal archaeological survey was recommended for three small, potentially undisturbed areas, none of which are in the Proposed Project sites. No cultural resources were specifically identified in the Proposed Project sites.

One archaeological site (19-001872) is partially located within the records search area. This site was first recorded by Greenwood and Associates in 1990. The site is described as a light-density shell scatter containing various chert flakes. The historical component consists of three 1880s commercial structures. Greenwood and Associates noted that the site was severely damaged by later railroad and demolition/construction activities and that the prehistoric component of the site was likely redeposited midden (Greenwood and Associates 1990). The northern extent of the site is approximately 0.3 mile south of the proposed E&B oil production facility.

3.4 PALEONTOLOGICAL RECORDS SEARCH

A museum records search was conducted at the Los Angeles County Museum of Natural History (LACM) on November 12, 2013. This records search was supplemented by a review of the University of California, Museum of Paleontology’s online database (UCMP), which contained paleontological records for Los Angeles County.

The LACM records show that there are no known localities within the surficial dune and drift sand. However, according to McLeod (2013), it is likely that the young surficial sediments shallowly overlie older Quaternary deposits in the Proposed Project sites. These underlying Quaternary deposits have yielded vertebrate fossils at localities east of the Proposed Project sites, sometimes at relatively shallow depth. McLeod (2013) reports three localities within the vicinity of the Proposed Project sites. Locality LACM 4444 east of the Proposed Project sites near Crenshaw Boulevard and 190th Street, yielded fossil specimens of *Equus* (horse), and Cetacea (whale), at a depth of 15 feet below the surface. Southeast of the Proposed Project sites, near Crenshaw Boulevard and 236th Street, locality LACM 1839 produced a specimen of *Equus*, recovered from 35 feet below the surface. Near Prairie Avenue and 139th Street, northeast of the Proposed Project sites, locality LACM 2035 produced a fossil specimen of *Mammuthus* (mammoth) at an unreported depth.

The UCMP online database for Los Angeles County indicates there are 87 fossil localities within the San Pedro Formation in Los Angeles County. Recovered fossil specimens include horse, camel, saber-tooth cat, rodent, rabbit, bird, sloth, bison, dire wolf, mollusk, and microfossils. The implications of these findings are reported in Chapter 5.3 below and in Appendix B.

3.5 SACRED LANDS SEARCH

Æ contacted the Native American Heritage Commission (NAHC) on October 9, 2013, for a review of the *Sacred Lands File* to determine if any known Native American cultural properties (e.g., traditional use or gathering areas, places of religious or sacred activity, etc.) are present within or adjacent to the Proposed Project sites (Appendix C). The NAHC responded on October 11, 2013, stating that no Native American cultural resources are known to exist within the immediate Proposed Project vicinity; however, the NAHC indicates that Native American Sacred Land place(s) exist in close proximity to the Proposed Project sites and requested that Native American individuals and organizations be contacted to solicit further information regarding cultural resource issues or concerns related to the Proposed Project.

Ten individuals and organizations were contacted by email or letter on October 21, 2013. Mr. John Tommy Rosas of the Tongva Ancestral Territorial Tribal Nation responded via email on October 21, 2013, and stated he would review the Proposed Project documents (see Appendix C). On October 29, 2013, Mr. Robert Dorame of the Gabrieleno Tongva Indians of California Tribal Council discussed the Proposed Project with Mr. Warren. Mr. Dorame reported that he had conducted an independent survey of the Proposed Oil Production site and had observed a bivalve shell and rock that might be cultural in origin. He stated that these items were located beyond the Proposed Project boundaries along a pedestrian path, a former railroad bed where the rails have been removed. Nonetheless, Mr. Dorame requested monitoring by a qualified archaeologist and a Native American monitor of all project-related ground-disturbing activities (see Appendix C). On November 5, 2013, Keith Warren of Æ contacted each individual on the NAHC list by telephone. On November 6, Mr. Sam Dunlap, Cultural Resources Director, Gabrieleno Tongva Nation responded via email and requested archaeological and Native American monitoring of all project-related excavations (see Appendix C). No other responses, emails, or voice mails were received.

3.6 SITE INSPECTION

On October 28, 2013, Æ archaeologist Keith Warren conducted a vehicular survey of the Proposed Project sites. Mr. Warren observed that the entire Proposed Project is a built environment and as such provides zero visibility for the detection of archaeological resources. On October 30, 2013, Æ archaeologist Michael Kay visited the Hermosa Beach Public Works Maintenance Yard (City Yard) building located at 555 6th Street. Mr. Kay evaluated the City Yard building and the results of this inspection are presented in Chapter 5.

4 SETTING

4.1 ENVIRONMENTAL SETTING

The Proposed Project site is located along the coastal portion of the Santa Monica Bay, within the southwestern Los Angeles Basin, approximately 0.4 mile inland from the Pacific Ocean. The site is underlain by Holocene-age dune sands west of the adjacent older alluvial deposits in the Los Angeles Basin to the east. The on-site deposits generally consist of dune and drift sands that were deposited as ancient aeolian (wind-blown) deposits (NMG Geotechnical 2012:9). Within the Proposed Project site, these deposits have become covered by buildings, paved roads, and asphalt and concrete surfaces. Little of the original surface of the dunes remains exposed. Nonetheless, it is possible to reconstruct the historic setting.

4.2 PREHISTORY

A number of cultural chronologies and archaeological sequences have been proposed for coastal and littoral southern California since the 1920s. These have attempted to track the development of terrestrial hunting-foraging and marine resource exploitation adaptations among populations in the area since at least the beginning of the Holocene. These proposed sequences have generally been based on changes in artifact types rather than linkage to socio-cultural systems in the region. In other words, the archaeological materials show cultural continuity for much of the Holocene, despite population increase, intensification of resource use, and techno-economic innovations in maritime and terrestrial resource exploitation (e.g., circular shell fish hooks, bow and arrow, and mortar and pestle). Lacking unequivocal archaeological evidence for major episodes of cultural change, researchers have proposed a range of different cultural periods for the region. Variants of the southern California prehistoric chronology include those proposed by King (1990) for the Santa Barbara Channel, Koerper and Drover (1983) for Coastal Orange County, and Erlandson and Colten (1991) for southern California, and generally reflected the common use of an essentially tripartite division of early, middle, and late development for Holocene cultures in the region. Chronologies developed by Mason and Peterson (1994) for coastal Orange County, and by Altschul and others (2007) for coastal Los Angeles County have been followed here, with a few modifications.

4.2.1 The Early Period (Millingstone Horizon) Phase I: 10,500–8000/7500 Before Present (B.P.)

Research in the Santa Barbara Channel region and elsewhere on the southern California coast has pushed back dates for early human occupation of the coastal region to 10,500 B.P. or earlier. This change reflects apparent canoe travel to the Channel Islands, and a human presence in the northern Channel Islands as early as 13,000 years ago (Erlandson et al. 2008; Rick et al. 2001). The presence of migrants using watercraft during the Terminal Pleistocene or Early Holocene has also been proposed (Jones et al. 2002). New data on early Holocene exploitation of marine fauna suggest the use of ocean-going craft (Dallas 2004). The nature of these watercraft and the antiquity of the plank canoe in southern California have been subjects of debate, with some scholars proposing a Late Holocene date for planked vessels, while others recommend an Early Holocene date (Fagan 2004; Gamble 2002). Parallel to this development has been disagreement about the antiquity of open-water fishing from canoes using nets, and by extension, the

importance of fish in Early Holocene coastal subsistence (Rick and Erlandson 2000). Rick and Erlandson (2000) recovered fish remains from several sites on the Santa Barbara coast and in the northern Channel Islands dating to 8000–9000 B.P., and believe that nets were being used at that time.

Several cultural chronologies (Koerper and Drover 1983; Mason and Peterson 1994) have assigned the greater part of the early and middle Holocene, from 8500–8000 B.P. to 3000 B.P., as a millingstone period or horizon, characterized by the increase of millingstones and handstones found in sites of this period. However, Wallace, who helped develop the Millingstone Horizon concept and excavated several sites in the 1950s, places the terminal date for this period at 5000 B.P. (Wallace 1955). This change, proposed as occurring between 5000 and 3000 B.P., has created some confusion in the literature, although the chronology used here ends the Early Period or Millingstone Horizon at 3000 B.P.

A distinction has traditionally been made between a pre-millingstone occupation in southern California, expressed as a “hunting” culture in the interior (San Dieguito), and a pre-millingstone shellfish-based subsistence on the coast. This phase was proposed to have later been followed by the development of a millingstone-based adaptation dependent on hard seed and shellfish exploitation after about 8000–7000 B.P. However, there is some disagreement over the time period represented and the magnitude of this change. Researchers on the Santa Barbara coast have recently treated the period before 8000 B.P. as an early phase of millingstone cultural expression (Erlandson et al. 2008). The discovery of the earliest large millingstone assemblage on the California coast (or interior) at Cross Creek, San Luis Obispo County, dating before 10,000 B.P., has caused a reevaluation of dates for the commencement of the Millingstone Horizon (Jones et al. 2002). In the Los Angeles region, at Malaga Cove at Redondo Beach, the earliest occupation of the site may date from the end of this Early Period–Phase I. While it lacks ground stone assemblages, recovered artifacts include crude chert flake tools such as scrapers and dart points, cores and hammerstones, clamshell and *Olivella* beads, some incised stones, and bone artifacts, including bone beads (Moratto 1984:13–132).

4.2.2 The Early Period (Millingstone Horizon) Phase II: 8000/7500–5000 B.P.

Southern California coastal and littoral sites after 8000–7500 B.P. were typified by an increase in relative quantities of millingstones and handstones, although some sites on San Clemente and the Catalina Islands lacked such assemblages (Meighan 2000). Sites from this phase of the Millingstone Horizon have also been observed to contain crude scraper planes, scrapers and choppers, and large projectile points. Millingstones and handstones were associated with a subsistence regime based on the exploitation of hard seeds, although they were also used to process other resources. The coastal environment was shaped by early Holocene rising sea levels which did not stabilize until 5000 B.P. (Altschul et al. 2007). This delayed the full development of estuarine marshes and the onset of sedimentation of open estuaries and lagoons.

Resultant instability of water levels in stream outfalls and estuaries may have caused the frequent movement of sites between estuary bank and bluff top. Early Millingstone Horizon sites in coastal western Los Angeles County featured exploitation of fish and shellfish and coastal prairie grasses, supplemented with opportunistic terrestrial hunting. The coastal foraging populations in the Ballona Creek area at this time were small and liable to move between lagoon bank and bluff top camps (Altschul et al. 2007). Sites Ca-Ven-1 and Ca-Lan-92, located up the Los Angeles County coast west of Malibu, show a dependence on marine resources and the processing of

seeds with ground stone. Sea mammal remains were recovered, and the procurement of fish was a major activity at Ca-Ven-1, with bone gorges having been used. It is presumed that canoes were employed to catch the deep-water fish species identified at the site (Dallas 2004). Shell beads, worked bone, and choppers were also encountered. In contrast, at CA-LAN-958 at Malibu, an early Millingstone ground stone assemblage was accompanied by shellfish and very little evidence of either terrestrial fauna or fish exploitation (Porcasi and Porcasi 2002). Radiometric data from coastal sites across a broad expanse of the southern California coast from San Luis Obispo to Orange counties has suggested a drop in the number of coastal sites that is most pronounced between 6000–5500 B.P. (Dallas 2004; Glassow 1999). It is not known, of course, if this trend denotes a decline in coastal population or the aggregation of population in a smaller number of sites. Sites at the Ballona Creek estuary were reportedly abandoned from 6000 to 5000 B.P. (Altschul et al. 1992:43).

4.2.3 The Early Period (Millingstone Horizon) Phase III: 5000–3000 B.P.

Later on during the Millingstone Horizon, coastal sites present evidence of a diversification of subsistence strategies, with increased procurement of small terrestrial game. From 5000 through 3500 B.P. there is a substantial increase in the number of southern California coastal sites especially notable in Orange County (Glassow 1999). Later sites of the Millingstone complex dating from after 5000 B.P. also include cogged stones and discoidals. Cairns of ground stone tools have been found atop flexed or extended primary interments and secondary reburials which possibly reflect the importance of the tool type (Koerper et al. 2006). Smaller-sized dart points have also been recovered. Bone artifacts are not abundant, but include bone awls, antler flakers, and atlatl hooks. Tarring pebbles and asphaltum with basketry impressions, along with the bone awls, attest to basketry manufacture. Glassow (1996) has suggested that the increased frequency of mortars and pestles late in the Millingstone period may be linked to processing of foods other than acorns, but that evidence of the use of basketry hoppers on mortars marks the proliferation of acorn processing. He dated these hopper mortars in the Santa Barbara region to after 4500 B.P., while the earliest crude mortars and pestles are dated from 5500–4500 B.P. (Glassow 1996:18). The hopper mortars became more common during the following Intermediate Period.

4.2.4 The Intermediate Period: 3000–1300 B.P.

Early in the Intermediate Period, both on the coast and in the littoral zones, mortars and pestles tend to replace millingstones and handstones in ground stone assemblages. As noted above, this is believed to reflect a long-term shift from hard seed exploitation to acorn processing, although the exploitation of grasses and hard seeds continued to figure in the coastal and interior subsistence regimes. In Los Angeles County and elsewhere, this shift is earlier and more prevalent at coastal sites as opposed to interior sites. On the Santa Barbara coast, millingstones were completely replaced by mortars and pestles by 2200 B.P. (Glassow 1996:18). In some areas of the southern California interior, millingstones and handstones remained common through historic times, although mortars and pestles (and bedrock mortars) were also found.

It was also formerly supposed that during the first 1,500 years of the Intermediate Period, there was a decrease in intensity of occupation of coastal sites, ending around A.D. 400–500 with the arrival of Takic groups from the interior deserts. While cases of a settlement hiatus can be found in the southern California coastal region—at the Newport Bay estuary in Orange County, for example—this is not a generalized phenomenon (Grenda et al. 1998). Paleoclimate data have suggested a period of heavier than average rainfall between circa (ca.) 3000 and 1700 B.P. in

coastal Los Angeles and Orange counties, followed by variable but drier conditions until the end of this period (Davis 1992).

At the Ballona Creek lagoon, by around 2000 B.P., coastal habitation sites became more numerous, larger, and more complex, featuring house features, associated hearths, and mortuary areas. The diversity of faunal assemblages increased, and mortars, pestles, and stone bowls became more abundant. Primary and secondary inhumations and secondary cremations have been encountered at bluff-top sites in this area. At Malaga Cove, bone harpoon barbs were recovered, along with circular shell fishhooks. These fishhooks first appeared in coastal archaeological assemblages during the Intermediate Period, the oldest dates for these artifacts came from the southern Channel Islands (Raab et al. 1995).

By ca. 2500 B.P., after the beginning of the Intermediate Period, settlement and population levels in interior areas in Los Angeles County, such as the San Fernando Valley, had also increased. While the Santa Monica Mountains, for example, were close enough to the coast to depend on Millingstone Horizon subsistence patterns, this was not true farther inland (Keller and Ciolek-Torello 2006). This interior settlement has been linked to the gradual spread of acorn processing, an increase in exploited subsistence resources, and more moderate rainfall conditions. By ca. 1500 B.P. or perhaps a little earlier, the bow and arrow were introduced.

One major issue in regard to Intermediate Period occupation of the coastal littoral zones in Los Angeles County was the timing of the arrival of groups of Takic language affiliation in the region. It was long hypothesized that the arrival of these linguistic ancestors of the Gabrielino/Tongva, Serrano, Cahuilla, Luiseño, and other southern California Takic language groups was coeval with the appearance of arrow points and the use of the bow, around circa A.D. 500. The idea of a “Takic wedge” descending from the interior deserts at around this time or even later has been generally accepted (Moratto 1984). However, based on linguistic and archaeological evidence, a number of investigators have recommended an earlier presence of Takic groups in the region dating to as early as ca. 3000–3500 B.P. (Kowta 1969; Sutton 2009). This earlier arrival appears plausible, in part because of the relative timing of the presence of Numic and Tubatulabal Uto-Aztecan groups in the southern California interior.

4.2.5 The Late Prehistoric Phase I: 1300–700 B.P.

During the period from 1100–700 B.P., unstable and intermittently dry climate conditions affected the southern California region. A period of heavy precipitation from 1300–1100 B.P. has been proposed for the beginning of this period, followed by prolonged episodes of extreme drought. These droughts represented a widespread global warming episode, referred to as the Medieval Climatic Anomaly, which also impacted native cultures in the North American southwest and elsewhere. The effects of this xeric episode and of a proposed rise in seawater temperatures at around this time on the southern California coast and interior have been widely studied and debated during the last 20 years. Persistent severe drought episodes have been dated as having occurred from ca. A.D. 900–1000 through A.D. 1300 (Erlandson et al. 2008:95–96; Kennett 2005; Kennett and Kennett 2000; Raab and Larson 1997; Stine 1994). It has been argued that these persistent droughts and rise in seawater temperatures caused subsistence and nutritional stress, increased inter-group conflict in both the southern California interior and on the coast, and resulted in a decrease in availability of both terrestrial and marine subsistence resources (Arnold 1997; Arnold et al. 1997; Lambert and Walker 1991; Lambert 1993).

The proposed subsistence crisis during this era has been viewed as leading to the emergence of more highly ranked social systems with more complex patterns of specialized craft production and distribution; that is, “emergent social complexity” among the Island Chumash of the northern Channel Islands. This has been seen as generating a Late Prehistoric pattern of relative social complexity among the Chumash and, to a perhaps lesser degree, among their Gabrielino/Tongva and Serrano neighbors to the east in Los Angeles County (King 2004). The severity of the subsistence impact for coastal settlements due to alleged long-term increases in average seawater temperatures has been debated. Some researchers have provided evidence that while negative changes in seawater temperatures and marine productivity during this period may have occurred, these were not severe enough to devastate coastal fisheries (Kennett 2005; Kennett and Kennett 2000).

4.2.6 The Late Prehistoric Period Phase II: 700–240 B.P.

By the beginning of Phase II of the Late Prehistoric period, rainfall conditions increased with some researchers arguing for greater available moisture than at present, the so-called “Little Ice Age,” after ca. A.D. 1400 (Boxt et al. 1999). There is agreement about a substantial expansion of coastal and littoral populations in southern California after 700 B.P. (A.D. 1300). Interestingly, there are indications of an expansion of numbers of sites in several near-coastal areas in the Long Beach and Newport Beach areas during the A.D. 1400–1660 period, and a subsequent decline from A.D. 1600–1800 (Altschul et al. 1998:27; Boxt et al. 1999:27).

During this period, the northern Channel Islands populations further developed craft specializations, including shell bead manufacture, that sustained trade with mainland settlements and with far-distant trade destinations to the east, and provided an exchange medium for the regional economy. Steatite quarried on Santa Catalina Island was used to make stone bowls, pipes, comals, sucking tubes, pendants, beads, and effigies. A festival system, developed in part around periodic mourning ceremonies, involved the amassing of wealth in beads and other resources, particularly among political elites.

Many major settlements documented after the Spanish conquest were occupied during this period. In areas of inland settlement, by the end of the Intermediate Period, mobility and long-distance migration towards the coast from seasonal camps was replaced by the development of permanent settlements. The pattern of settlement at this time included a permanent winter village with a cemetery, sweat lodge, chief’s house, dance and sacred enclosure, and a variety of subsidiary temporary camps and activity areas (Mason and Peterson 1994). Some village sites from this period have preserved elements of site structure, including the floors and foundations of residential units and sweat lodges (Ciolek-Torello 1998). Marriage ties and political alliances linked individual village territories, while alliances allowed communities to, in effect, “lend” access to resources to other communities. The development of the large coastal and littoral territorial villages of the Gabrielino/Tongva recorded in ethnohistoric accounts has fueled speculation about the achievement of a completely sedentary type of settlement. Temporary seasonal camps appear to have been utilized even in coastal areas where large village sites were located close to one another.

4.3 ETHNOHISTORICAL BACKGROUND

During the protohistoric period, the Los Angeles area was inhabited by the Gabrielino (Tongva) people, a Uto-Aztecan (or Shoshonean) group that may have entered the Los Angeles Basin as

recently as 1500 B.P. from the southern Great Basin or interior California deserts; it is also possible that the Gabrielino peoples migrated into the Los Angeles region in successive waves over a lengthy period of time beginning as early as 4000 B.P. Gradually these Uto-Aztecan peoples began to displace the previous Hokan occupants of the southern coastal region (Kroeber 1925:578–580). In the protohistoric period, the Gabrielino were flanked by speakers of Hokan languages: the Chumash to the north and the Diegueño to the south (Kroeber 1925:578–580). A cursory review of the Gabrielino territory and their culture, prepared for the Metropolitan Water District's Headquarters Project in Los Angeles (Goldberg et al. 1999), is presented below. For a detailed review of the Gabrielino, the reader is referred to William McCawley's book *The First Angelinos* (1996).

It is believed that the total Gabrielino territory covered more than 1,500 square miles and included the watersheds of the Los Angeles River, San Gabriel River, Santa Ana River, and Rio Hondo. The Gabrielino also occupied the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 residential communities with populations that ranged from approximately 50 to 150 individuals. Each community consisted of one or more lineages which maintained a permanent geographic territory that included a permanent settlement and a variety of hunting and gathering areas as well as ritual sites. A typical Gabrielino settlement contained a variety of structures used for religious, residential, and recreational purposes. In the larger communities, a sacred enclosure surrounded by the houses of the chief and other members of the elite community was generally located near the center of the community. Surrounding these structures were the smaller homes occupied by the rest of the community. Other features common at residential sites were sweathouses, and level clearings used as playing fields and dance grounds as well as cemeteries (McCawley 1996:32–33).

Gabrielino territory offered a rich and diverse resource. Subsistence items described in ethnohistorical sources include large numbers of native grass seeds, six or more types of acorns, pinyon pine nuts, seeds and berries from various shrubs, fresh greens and shoots, mule deer, pronghorn, mountain sheep, rabbits and rodents, quail and waterfowl, snakes, lizards, insects, and freshwater fish, plus a wide variety of marine fish, shellfish, and sea mammals in coastal zones. This wealth of resources, coupled with an effective technology and a well-developed trade and ritual system, resulted in a society that was among one of the most materially wealthy and culturally sophisticated cultural groups in California (McCawley 1996:141). The management of food resources by the chief was the heart of the Gabrielino economy; a portion of each day's hunting, fishing, or gathered food resources was given to the chief who was responsible for managing the community's food reserves. Each family also kept a food supply for use in lean times.

The material culture of the Gabrielino is elaborate in many ways. An excellent descriptive source is Blackburn's (1963) compendium of Gabrielino material culture, which is intended for an archaeological audience and exhaustively summarizes Padre Geronimo Boscana's accounts of the Juaneño farther south in the vicinity of San Juan Capistrano (Boscana 1978), Hugo Reid's 1852 letters to the *Los Angeles Star* (Reid 1968), and Harrington's early twentieth-century interviews (Harrington 1986), among a number of other sources. Shell ornaments and beads, baskets, bone tools, flint weapons and drills, fishhooks, mortars and pestles, wooden bowls and paddles, shell spoons, wooden war clubs, and a variety of steatite items (cooking vessels, comals, ornaments, etc.) are among the many artifact types common in descriptions of Gabrielino culture (Blackburn 1963). Highly developed artisanship is particularly evident in the many technomic

implements inlaid with shell (using asphaltum) and in the steatite items from production centers on Catalina Island.

Trade was an important element of the Gabrielino economy. While the principal Gabrielino produced commodity (steatite vessels from centers on Catalina Island) originated well outside the defined study region, trade in steatite items was conducted throughout the local territory and involved external relations with cultural groups beyond Gabrielino borders, including the Cahuilla, Serrano, Luiseño, Chumash, and Mojave. Additionally, *Olivella* shell callus beads, manufactured on the northern Channel Islands by the Chumash and their predecessors, were reportedly used quite frequently as a currency by the Gabrielino and other southern California groups, particularly in situations when bartering methods were inappropriate or ineffective.

In general, the Gabrielino cultivated alliances with other groups, including a Chumash-Salinan-Gabrielino alliance (Bean 1976:104), and also maintained cult or ritual centers (such as the village *Povongna*, presumed to be located in the vicinity of Long Beach) where trade fairs, mourning ceremonies, and other sorts of social and economic interaction linked villages of many environmental zones into exchange and social partnerships. Strong (1929:98) indicated that there was a “loose ceremonial union” among the Cahuilla, Luiseño, Serrano, and Gabrielino, manifested in gifts of shell money sent by all to leaders of clans in which a death had occurred. Blackburn (1976:240) notes that ceremonialism in general provided a context for far-ranging social interaction, especially between the Gabrielino and several neighboring groups, and resulted in strong unity against external enemies. However, Bean and Smith (1978:546) conclude that the Gabrielino peoples quarreled constantly among themselves and that intervillage conflict was frequent and deadly, although rarely extended. Marriage ties usually dictated affiliations during conflicts.

4.4 HISTORIC CONTEXT

4.4.1 History of Early California and the Los Angeles Region

During the sixteenth and seventeenth centuries, the Spanish Empire had little interest in what is now known as California, limiting its activities to a handful of exploratory trips and surveys into the region. In 1542, the Portuguese explorer Juan Rodriguez Cabrillo led a Spanish group from Mexico to explore the lands of what is now California. It was during this expedition that Europeans first came in contact with the region’s native peoples.

The first direct contact between Europeans and Gabrielino is thought to have occurred in 1542 with the arrival of Cabrillo’s small fleet at Santa Catalina Island, and later in 1602 when the Sebastian Vizcaíno expedition visited San Clemente and Santa Catalina islands and the mainland near present-day San Pedro (McCawley 1996:207). Later, in 1769, the Gaspar de Portolá expedition crossed the Gabrielino homeland twice in his exploration for suitable settlement sites.

With the success of these expeditions and in response to Russian and French presence in parts of North America, Spain adopted an aggressive colonization campaign in what they perceived as their Las Californias territories in the second half of the eighteenth century. With the intent to establish a series of presidios and missions along the west coast, the Spanish sent de Portolá and Franciscan priests Junípero Serra and Juan Crespi in search of locations for settlement in Alta California, resulting in the founding of the Mission San Gabriel Arcángel at its first location near

present-day Whittier Narrows along the San Gabriel River in 1771. The founding of El Pueblo de Los Angeles near present-day Los Angeles Plaza soon followed in 1781.

Because of conflict, recruitment and conversion of the Indians remained slow for the first few years of the mission's existence. Sometime around 1774, Mission San Gabriel was moved to its present location to obtain more suitable land for agriculture. A second mission, San Fernando, was established within Gabrielino territory in 1797.

The ethnographic evidence suggests that several Gabrielino settlements were located on the Los Angeles plain. Chester King identified several areas where archaeological remains of village sites dating to the ethnohistoric contact period may be located (Stone and Sheets 1993). Two of these vaguely defined areas include *Ha'utnga* in the Lynwood/South Gate/Watts area and *Amupunga* near the Rancho San Pedro (Dominguez) Adobe. A third village area known as *Yaanga* (or *Yaangna*), is believed to have been located on the west bank of the Los Angeles River slightly south of the old Spanish Plaza of El Pueblo de Los Angeles in the vicinity of Union Station. Mission life was highly regimented and contrasted sharply with the traditional Gabrielino lifeway. As a result, colonization had a dramatic and negative effect on Gabrielino society, resulting in fugitivism. The traditional Indian communities were depopulated and epidemics caused by the introduction of European diseases further reduced the local Indian population.

Throughout the first half of the nineteenth century, the Pueblo's Anglo population grew. By the 1820s, Los Angeles and the surrounding areas had gained prominence as an agricultural and cattle-ranching center. Along with people from eastern parts of the United States, a large influx of immigrants from Mexico, Europe, and other parts of the world contributed to its population, industry, and commerce. By 1827, Los Angeles had gained so much prominence that it had become the largest center in Alta California.

Between 1832 and 1834, the Mexican government implemented a series of Secularization Acts that were theoretically designed to turn the mission lands back to the native populations; however, most of this land was taken over by Mexican civilians. The primary result of secularization was increased fugitivism among the Gabrielino (McCawley 1996:208). The later American takeover of California brought further hardships to the Gabrielino who eventually settled at small Indian and Mexican settlements in the Eagle Rock and Highland Park districts of Los Angeles as well as farther inland at Pauma, Pala, Temecula, Pechanga, and San Jacinto.

By the mid 1840s Los Angeles emerged as the territorial capital for Las Californias under Mexico's control. In December of 1847, the United States Army invaded the plaza under the command of Major John Frémont. Then on January 13, 1848, Frémont and Mexican Commander Andrés Pico signed the Treaty of Cahuenga, which ended the conflict in California between the two nations. The Mexican-American War officially came to an end on February 2, 1848, when both sides signed the Treaty of Guadalupe Hidalgo, granting the United States ownership of the Las Californias territories that encompassed parts of California, Nevada, Utah, Arizona, Texas, Kansas, Colorado, Wyoming, Oklahoma, and New Mexico.

Following this transfer and the Land Act of 1851, previous land owners under the Mexican government could file a claim with the Public Land Commission to officiate previously held titles (Robinson 1948). The Treaty of Guadalupe Hidalgo stipulated transfer of all but the very

latest land grants (Robinson 1948:105–107). Seventeen years was the average length of time taken for the Board of Land Commissioners to review a land claim. During this time land was not available for sale, squatters moved in, and claimants went bankrupt in trying to prove-up their claim (Robinson 1948:105–107). Many of those who had held and worked land for the period before the Treaty did not outlast the review process and much of the land passed into the hands of influential Americans.

4.4.2 History of Hermosa Beach

The area encompassing present-day Hermosa Beach was originally part of an 1837 Mexican land grant known as *Rancho Sausal Redondo*, which was granted to Antonio Ygnacio Avila by then-governor Juan Alvarado. The 22,458-acre property included present-day Hawthorne, Hermosa Beach, Inglewood, Lawndale, Manhattan Beach, and Redondo Beach. In 1855, the United States patented the land grant to Avila, recognizing him as the rightful owner of the property.

When Avila died in 1858, his heirs sold the property to Scotland native Robert Burnett, who also owned another land grant, the *Rancho Aguaje de la Centinela*. He combined both properties to raise sheep and cattle, and leased a portion to Daniel Freeman in 1873. In 1885, Freeman purchased all of the land from Burnett. At some point in the last 15 years of the nineteenth century, Freeman sold his property to various real estate developers. Among them was A. E. Pomroy, who eventually owned most of *Rancho Sausal Redondo* and sold 1,500 acres to agents of the developers, Moses Hazeltine Sherman and Eli Clark. Sherman and Clark had controlling interest of the Hermosa Beach Land and Water Company (Rhein 1933). In the early 1900s, Hermosa Beach, like the surrounding region, was primarily used for sheep grazing and the cultivation of barley.

The official survey for the Hermosa Beach boardwalk was conducted in 1901, and the construction of the wood plank boardwalk followed shortly along the 2-mile stretch of the Strand. In 1904, the Hermosa Beach Land and Water Company built the City's first pier. Constructed of wood and extending 500 feet into the Pacific waters, it was partially washed away and replaced in 1913. Following the first election for city officers on Christmas Eve of 1906, the City of Hermosa Beach was incorporated and chartered on January 14, 1907. During this time, the City also acquired its 2-mile stretch of coastal property by deed from the Hermosa Beach Land and Water Company. The deed included a clause to hold the property in perpetuity as a public place for recreation and general enjoyment, as it remains today. In 1914, tides had again washed away portions of the boardwalk; these sections were then replaced with a cement walkway. In 1926, another 2,000 ft of cement walkway was added to the north end of the boardwalk (City of Hermosa Beach 2013).

Development of the City came relatively quickly at the turn of the twentieth century. By the end of the first decade, the City had its first primary school, with plans for another to accommodate third through ninth grades. The Pioneer and Berth hotels were established by 1907, and by the end of the second decade, the City had a fully functioning city hall, police and fire departments, post office, street and sewer maintenance departments, civic club, and library (Rhein 1933). The establishment of a railroad through Hermosa Beach by the Santa Fe Railway and the Los Angeles Railway, which later merged with the Pacific Electric Railway, cemented Hermosa Beach as a popular destination on the Pacific Coast. A review of Sanborn maps show that the streets were laid out and residential neighborhoods were platted by 1927. Few changes in the street pattern have since occurred.

Oil development played a significant role in early City development. In August 1930, California Ventura Oil Company's Well #1 (later Stinnett #1) struck oil, which extended the Torrance Oilfield into Hermosa Beach. This and eight follow-up wells in Hermosa Beach produced over a million barrels of oil. Eight of the nine wells drilled encountered oil. Of the nine wells drilled, six produced significant amounts of oil (Finken 2013). Initial 1930 production peaked 22 months later in May 1932 when 205 barrels of oil were produced per day from a total of five wells. Following peak production, the rate of oil produced declined steadily until the last well was shut in 1988. Total oil recovered was 1.15 million barrels. Well files show that all the wells changed ownership several times throughout their operating history; all were drilled by independent operators, none having been drilled by any of the major operatives (Finken2013).

The last producing well in Hermosa Beach, Stinnett #7 (originally California Ventura Oil Company well #2) was shut down in January 1988. By 2005, all Hermosa Beach wells had been plugged and abandoned. (Finken 2013)

4.4.3 Project Area History: 555 6th Street

Archival research indicates that this section of the Proposed Project sites was first developed in the early 1920s. For this study, the Los Angeles County Assessor's Map Books from 1900–1960 were reviewed at the Los Angeles County Hall of Records. The Map Books indicate City ownership or leasing (marked "to City" on maps) of the subject properties began in 1920 (Assessor's Map Book 188 p50), and continuing until the present day. City Directories (Kaasen Directory Company 1915–1931) on file at Ancestry.com contain no entries for the subject properties. Cypress Avenue lots, which bound the subject properties to the west, were developed as early as 1925 and residents included a janitor and a number of carpenters.

Sanborn Fire Insurance Maps for 1927, 1946, and 1960, topographic maps from 1896–1996, and aerial photographs from 1928–2005 for the Proposed Project sites were reviewed. The 1924 topographic map depicts what appears to be a large pit or depression west of the Santa Fe Railroad and within the subject area. By 1927, the Sanborn Map depicts the "City Dump and Refuse Burner" with a structure at the southeast corner of 6th Street and East Railroad Avenue (Figure 3); one part of the structure is labeled "Waste Storage 1925." Approximately 100 feet north of this structure is the "City Dumping Grounds." Bard Street is designated as "not open," but runs north through the Proposed Oil Production site. The 1928 aerial photograph, of poor quality, provides no further information. The 1934 topographic map depicts the pit or depression representing the dump, one structure, and one circular feature (probably Stinnett Oil Well No. 1 which struck oil in August 1930). Subsequent maps (1948–1996) provide no additional detail. The 1938 aerial photograph, however, includes the refuse burner, but the image is unclear and the exact configuration cannot be determined. The 1947 aerial shows the structure in the same configuration as the 1946 Sanborn Map.

By 1946, the Sanborn Map depicts the "City Garage & W.Ho." and conversion of the former burner building, at 553 6th Street. A small office is depicted at 541 Sixth Street, in the middle of Bard Street which remains unopened. West of the office, in the lot labeled 601 (Bard), are "2 steel oil tks" and to the north an "oil well" (presumably Stinnett Oil Well No. 1). Two rectangular features of unknown function are probably additional tanks. The City dumping grounds are depicted in the same location as shown on the 1927 Sanborn Map. The 1960 Sanborn Map is largely the same as the 1947 map; however, the office and the dump are no longer depicted and the dump area is labeled "City Service Yard" indicating that the dump is closed.

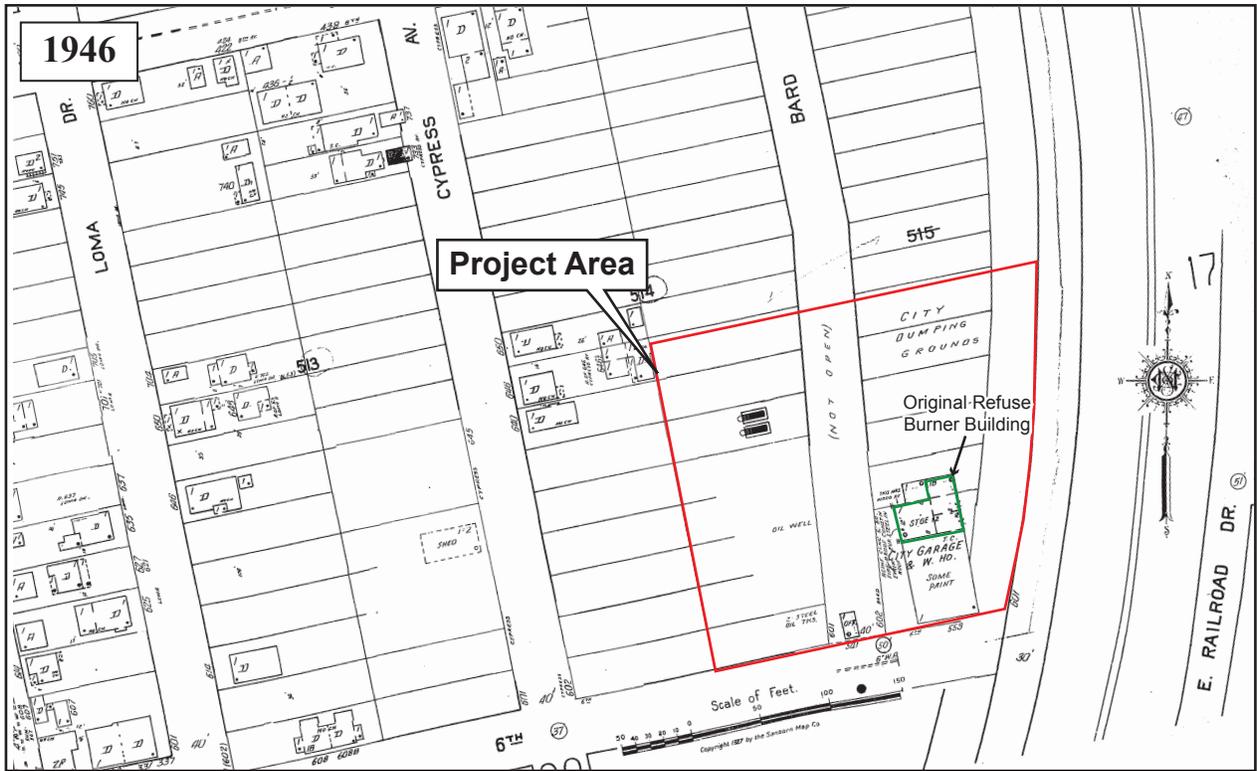
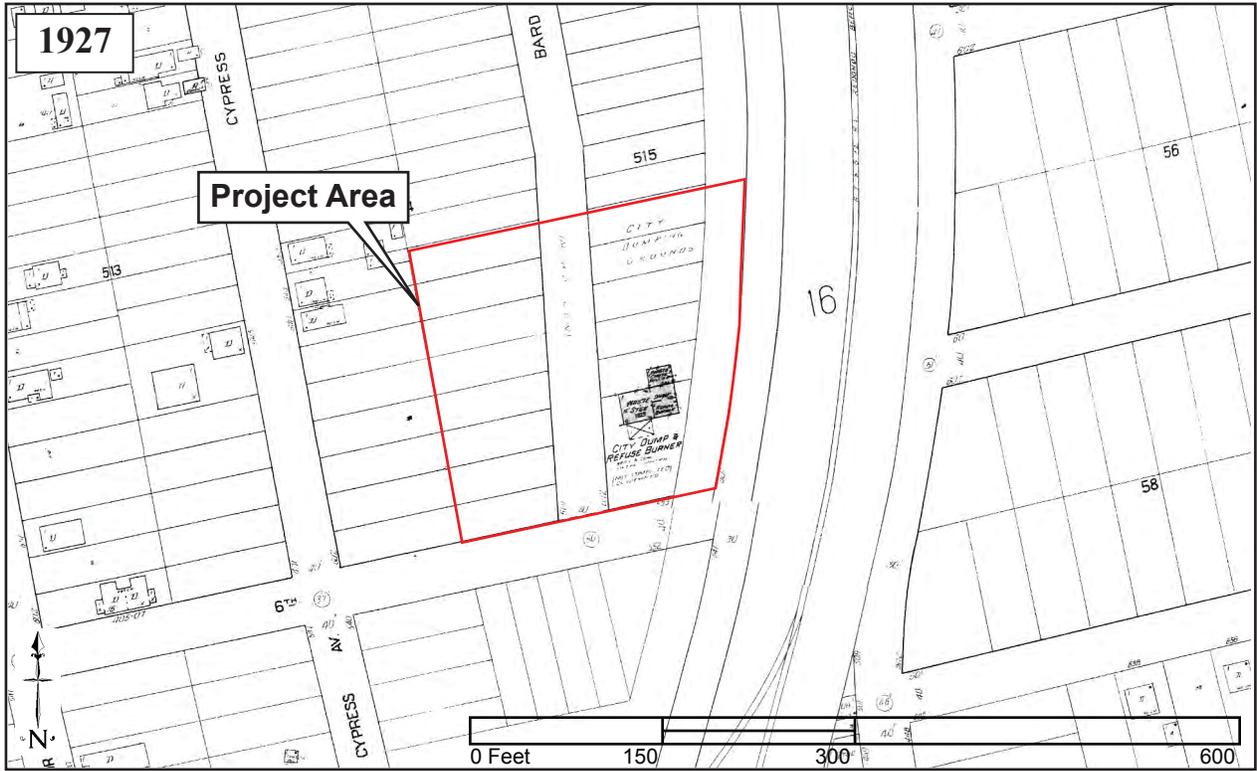


Figure 3 1927 and 1946 Sanborn maps (6th Street) and Project area boundary.

4.4.4 New City Maintenance Yard

Los Angeles County Assessor's Map books show that the subject property was owned between 1906 and 1920 by Bernard Hiss and from 1920–1927 jointly by Bernard Hiss, the Pacific State Lumber Company, and Olsen Lumber (Map Books 160:2,188:4). No structures are depicted on the 1924 topographic map or are legible on the 1928 aerial photograph. The 1925 City Directory lists Olsen Lumber at 606 Pier Avenue. The 1927 Sanborn Map depicts the Olsen Lumber Planing Mill, sections of lumber piles, and an unidentified circular feature to the west of the planing mill. The map also depicts an associated railroad spur and small structures to the east, along Railroad drive (Figure 4). Between 1927 and 1936 the subject property was owned jointly by Olsen Lumber, the Patten and Davis Lumber Company, and the Patten Blinn Lumber Company (Map Book 188:49). The 1934 topographic map depicts at least one structure in the subject area, as does the 1938 aerial photograph. Subsequent topographic maps (1948–1996) provide no further detail. By 1946, the Sanborn Map depicts one structure, identified as a silk mill, and a “conc, products” structure to the west, on the subject property. The railroad spur does not appear to extend into the Proposed City Maintenance Yard. The 1947 aerial photograph also depicts the mill. Aerial photographs between 1953 and 1956 show the building first expanded to an “L”-shaped structure, then a rectangular structure with associated parking lots. The 1960 Sanborn Map identifies the Imperial Mills Upholstery Factory occupying most of the subject property. The railroad spur and a rectangular structure to the east are also depicted. In 1978, the structure was occupied by a self storage facility (Converse Consultants 2005, iii, 8-12).

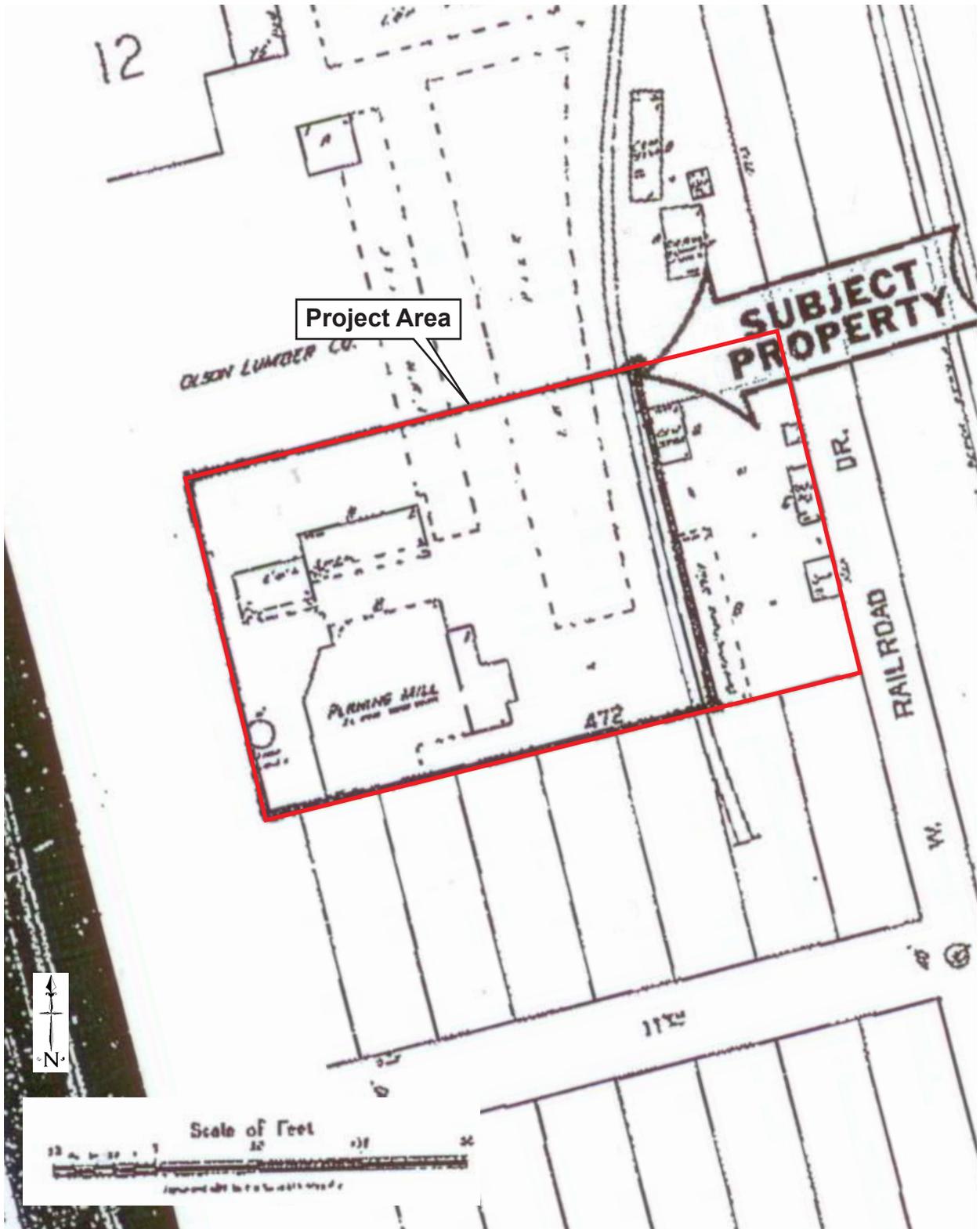


Figure 4 1927 Sanborn map (11th Street) and Project area boundary.

5 RESULTS

5.1 ARCHAEOLOGICAL RESOURCES

Archival research has demonstrated that the Proposed Oil Production site was utilized as a City landfill and refuse processing area from the 1920s through the 1940s. The 1924 topographic map depicts what appears to be a large pit or depression within this portion of the Proposed Project. The pit may have been a natural hollow feature, a sand mining pit, or may have been the result of borrowing for landfill. The horizontal dimensions of the dump are unknown and the depth of the deposits, based on available soil boring information appears to be at least 29 feet and possibly as deep as 45 feet (NMG Geotechnical 2012:10). The deposit contains glass, ceramics, brick, metal, and concrete near the base and it is assumed to be the result of municipal refuse collection from the early 1900s. Little information exists about refuse collection in the City of Hermosa Beach or the on-site process of incineration, sorting of waste, and refuse disposal. Significant artifacts associated with the furnace are unlikely; however, the former City landfill appears potentially to contain archaeological deposits that will be removed and adversely impacted by the Proposed Project. This section of the Proposed Project site is therefore considered to have high sensitivity to contain historical archaeological remains. The furnace construction may reveal other details about site operations.

The 1946 Sanborn Map depicts an oil well (presumably Stinnett Oil Well No. 1), and two rectangular features, presumably above-ground tanks. The oil well was plugged and abandoned in 2005 and the tanks and associated pipes and dispenser equipment removed in 1989 and 1998 (Brycon LLC 2012:2). Significant archeological remains associated with these oil industry features are unlikely.

The New Public Works Facility is the site of the former Olsen Lumber Mill, an unnamed silk mill, and the Imperial Mills Upholstery Factory. In 1978, the mill structures likely were demolished when the self-storage facility was added. Subsurface deposits associated with the earlier land use is likely to be limited to structural remains, which, given the early twentieth-century date and light industrial nature of the site, is unlikely to yield any new or significant archaeological data. The historical archaeological sensitivity of this site is considered low.

The records and literature search did not indicate the presence of previously recorded prehistoric resources within the Proposed Project sites or along the proposed pipelines. The only previously recorded site was situated 0.3 miles to the south. It was described as a light scatter of chipped stone flaking debris (Greenwood and Associates 1990). The site was reported to be heavily disturbed by railroad and later-period construction and/or demolition. Most of the Proposed Project sites are located in an urban environment and has also been extensively disturbed. However, local Native American groups expressed concern and consider the Proposed Project within their traditional use area. Mr. Dorame, of the Gabrieleno Tongva Tribal Council, completed an independent survey of the Proposed Project and found a single bi-valve shell on the surface outside of the Proposed Project area. He also observed modified rock. Mr. Dorame stated that these items were located beyond the Proposed Project boundaries and had no subsurface context. Nonetheless, Mr. Dorame requested monitoring of all project-related ground-disturbing activities by a qualified archaeologist and a Native American monitor.

5.2 BUILDING SURVEY AND DOCUMENTATION

The Hermosa Beach Public Works Maintenance Yard (City Yard) building is located at 555 6th Street, on the northwest corner of the intersection formed by Valley Drive and 6th Street. Oriented slightly northwest-southeast, the City Yard building is a long rectangular frame industrial building measuring approximately 18 feet high with a flat-top roof and an adjacent open-air service bay east of the building (Figure 5). The 45 foot by 90 foot building has undergone several additions and modifications to its original brick and cement-mortar footprint, which is primarily composed of a brick furnace room and automobile service bays on the ground level. What appears to be a basement-level dock has since been converted into a garage. Interior lighting is primarily modern fluorescent and incandescent fixtures.



Figure 5 The City Yard building, view to the southwest.

The building in its current condition contains five general areas on the ground level (A, B, C, D/E, and F), and the basement-level garage, which originally may have been a loading area at the north end of the structure (Figure 6). The original plan of the building, primarily constructed of brick and cement mortar, seems to comprise Areas B, C, H, and likely F, onto which later wood-framed and corrugated sheet paneled rooms (A, D/E) have been constructed.

Measuring 22 feet by 45 feet, Area B currently contains most of the intact historical elements and architectural characteristics of the City Yard refuse burner (Figure 7). Here, upper portions of the brick and cement-mortar wall construction are unobscured by paint and present the most visible wall characteristics. The wood-plank ceiling has largely been replaced, and on the western part of the room, the ceiling is supported by two parallel I-beam joists running north-south and set into cut recesses of the brickwork. They were clearly added later. Two square grid

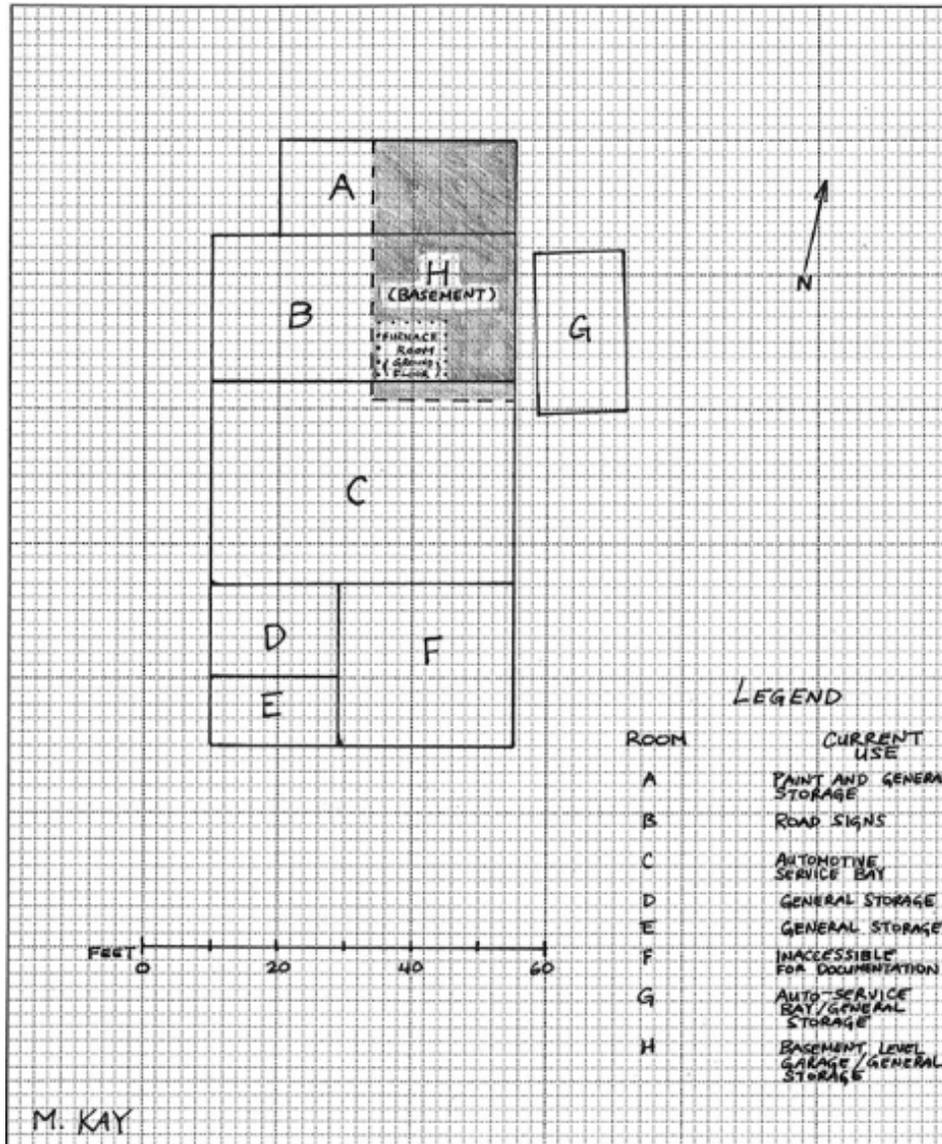


Figure 6 Plan sketch of City Yard building, ground level.

windows, each measuring approximately 3 feet by 3 feet, are installed in the east wall with no ornamental features. Two sets of wooden double doors form the west side of the room and also appear to have been added. An arched brick doorway at the eastern part of Area B has been filled in to accommodate a modern wall and door, leading through a bathroom to the service bay to the south. Close to the ceiling of the east portion of Area B is a pair of iron rails separated at a width of 4 feet 6 inches, remnants of a former pulley system that likely transferred items from an unloading dock in Area H below to the furnace room for incineration.

The furnace room, accessible through a wooden doorway measuring 2 feet 6 inches across and 5 feet 4 inches high, is constructed entirely of unpainted brick and mortar, and is approximately four brick courses lower than the rest of Area B. Currently used for general storage, the room features an arched ceiling with straight walls to the east and west (see Figure 7). The furnace itself occupies the entire southwestern one-sixth area of the room, and its north-facing arched opening measures approximately 2 feet by 2 feet. The furnace outlet extends above the roof by

approximately 1.5 feet. A rectangular void in the floor in front of the furnace opening indicates that objects may have been directly transported into the furnace from Area H, below.



Figure 7 Interior of furnace room, view to the south.

Area C is currently a service bay for vehicles. Its walls are constructed of brick and mortar, as seen in Area B, and two large sets of rectangular wooden double doors flank the east and west sides. Most of the ceiling and walls have been painted white; the doors are the same blue-gray color as the building's plastered and painted exterior. The wood panel ceiling is supported by a series of joists which are further buttressed by large round-cut unfinished wooden columns. A rectangular part of the north brick wall has been filled in, indicating that a void connecting Areas B and C were once part of the original construction.

Areas A and D/E are additions expanding upon the original plan. Accessible from the west through a large set of wooden double doors, Area A constitutes the north end of the building and measures 14 feet by 35 feet. The west wall has been inset approximately 10 feet from the rest of the building. The eastern 20 feet of Area A's floor is nonexistent and exposes part of Area H underneath; wooden boards are currently in place to shield this void. The south wall of Area A is shared with Area B, and the remaining sides are corrugated sheet steel panels, forming an extension northward from the original plan. The ceiling is constructed of wood panels and joists. A set of corrugated steel paneled double doors is built into the east wall, and a set of twin horizontal windows can be observed in the north wall.

In similar fashion, Area D/E, forming the southwest portion of the building, is an extension of Area C and probably Area F. Area D is 14 feet by 19 feet in area, and Area E is 10 feet by 19 feet. The north wall of Area D is shared with Area C, but the west and east walls of the room are of a different construction type that has been heavily plastered and painted a light gray-green. A wood-framed chain-link wall separates Area E from Area D, and is enclosed by corrugated fiberglass panels that serve as the roof and walls.

Area F was not accessible during documentation, and it likely has not been in use for a considerable amount of time. The window and door frame on the north side have been boarded up and a set of double doors on the west do not seem to have been accessed recently. The overall dimensions of Area F are estimated to be 25 feet x 26 feet.

Area G is an automotive service bay currently being used as a storage area. Constructed as a square pit with large concrete bricks to allow access to the bottom of vehicles that were driven onto a pair of ramps, the bay is encompassed by an approximately 8-foot-tall wooden frame that presumably had a roof and walls. The service pit measures approximately 12 feet by 15 feet and has a depth of 5 feet. Its orientation is slightly offset toward the west relative to the main building.

Area H is a basement-level garage/loading area accessible from the north via a modern wooden one-piece garage door, and beneath the eastern part of Areas A, B, and part of C. Approximately 10 feet high, the dimensions of Area H are approximately 20 feet by 39 feet. Most of the ceiling is wood plank supported by brick. Rectangular cuts in the ceiling near the southwest and southeast corners reflect the likelihood that items were transported from this area to the upper level. A "ghost" of a former structure on the west wall aligned perfectly with the ceiling void at the southwest reaffirms the likelihood that a lift or other mechanical device was situated to deliver materials directly to the furnace above. A driveway to the north of the garage leads directly to the ground level where it curves in a northeast direction.

Based on Sanborn maps, it would appear that the Maintenance Yard Building was constructed between 1924 and 1927; therefore, it is more than 50 years of age. At that time it served as a refuse burner associated with the City Dump. It was roughly an "L"-shaped building and appears to have been built of brick and mortar, remnants of which remain intact within the current metal frame structure. Originally, the building contained three rooms and an attached stable or storage shed. The extant driveway likely provided access to the facility and refuse was off-loaded at the lower level and moved by pulley or lift to the furnace on the upper level.

In its current condition, the building no longer retains architectural integrity. Portions of the original have been removed and much of the internal lifting mechanisms and pulley system used to move refuse from the lower level to the furnace on the upper level, no longer remain. Additions have been constructed, including the Areas A, D/E built of wood-frame construction and corrugated metal sheeting. From the exterior, there are no signs of the original construction and its appearance is unknown. It is only after entering the facility that its original use becomes clear. Nonetheless, even if the new additions were removed, the older structure is not entirely present. The building, while potentially eligible under Criterion 1 on the CRHR, no longer retains integrity.

The building is not eligible under Criterion 2, for its association with persons important to the nation or to California's past. The building as it currently stands does not embody the distinctive characteristics of a type, period, region, or method of construction (Criterion 3). The building does, as will be shown below, have the potential to yield information important to the history of Hermosa Beach.

5.3 PALEONTOLOGICAL RESOURCES

Based on the literature review and museum records search results, and in accordance to the Society of Vertebrate Paleontology's (SVP) sensitivity scale, the unconsolidated Holocene dune sand and drift sand (Qds) mapped within the Proposed Project site is determined to have a low paleontological resource potential. However, the Pleistocene San Pedro Sand (Qsp), associated with numerous significant paleontological localities, is determined to have a high paleontological resource potential and may underlie the surficial deposits at varying depths. The depth at which the San Pedro Sand underlies the surficial sand deposits in the vicinity of the Proposed Project site is unknown, but may have ranged from approximately 15 feet to 50 feet prior to the development of the City Dump (Dibblee 1999; McLeod 2013; Woodring et al. 1946). As previously stated, the former landfill is approximately 45 feet deep. Therefore, the likelihood of Project-related grading and excavations to reach underlying intact San Pedro Sand is considered low.

6 MANAGEMENT RECOMMENDATIONS

The Proposed Project consists of two proposed construction areas and associated pipelines. Development of the Oil Production site will be undertaken in four phases. For this cultural resources assessment, it is assumed that only Phases 1 and 3 would result in ground-disturbing activities within the Proposed Project site. Phases 2 and 4 generally will consist of drilling and oil production. Pipelines will be placed below city roads and/or utility rights-of-way and are likely to be in areas of previous disturbance. According to the E&B Oil Production Development Project Description (E&B Natural Resources 2012) the following activities will occur:

Phase 1 will consist of:

- Install Underground Existing Overhead Utilities;
- Construction Modifications to Intersection of 6th Street and Valley Drive;
- Relocation of City Maintenance Yard;
- Clearance of Project Site;
- Construction of Retaining Walls and Rough Grading;
- Installation of Perimeter Fencing;
- Construction of Well Cellar;
- Installation of Offsite Electrical Conduit and Onsite Electrical Equipment;
- Completion of Onsite Surface and Entrance/Exit;
- Installation of Temporary Landscaping; and
- Installation of 32-Foot Sound Attenuation Wall.

Phase 3 will consist of preparation final engineering design and initial site clearance:

- Remove Temporary Production Equipment;
- Remove Remaining Trees;
- Remove 32-Foot Sound Attenuation Wall and Perimeter Fencing;
- Install 16-Foot Sound Attenuation Wall;
- Implement Remedial Action Plan;
- Construction of Remaining Retaining Walls and Final Grading;
- Complete Construction of Well Cellars;
- Construction of 16-Foot Split-Face Block Wall;
- Remove 16-Foot Sound Attenuation Wall;
- Construction of Small Office Building;
- Installation of Permanent Production Equipment;
- Construction of Final Site Improvements;
- Construction of Final Street Improvements Along Project Frontage;
- Installation of Final Landscaping;
- Installation of 32-Foot Sound Attenuation Wall;
- Set Conductor Pipe; and

- Installation of Lighting Systems.

Many of these operations will require subsurface excavation. Additionally, site preparation requires that:

Unsuitable earth materials, including undocumented fill and weather dune sands should be removed prior to placement of new fill. Estimated removal depths vary from 2 to 4 feet over most of the site. Removals in the landfill area will extend to depth of 15 feet below existing grades for environmental purposes [NMG Geotechnical 2012:21].

Over-excavation will also be required:

The majority of the eastern portion of the site will be excavated approximately 7 feet deeper than the majority of the pad, with a retaining wall around the lower pad area; as containment around the proposed tanks. This design cut area should be over excavated a minimum of three feet below design grades [NMG Geotechnical 2012:22].

Construction at the new Public Works Facility will consist of building a two-level structure to accommodate a City Yard on the upper deck and parking for 129 cars on the lower deck. The overall floor area of the deck is approximately 48,000 gross square feet. The Vehicle Maintenance facility will be placed in the southwest corner of the Yard. The City Yard offices, gym, restrooms, lockers, and kitchen/break room will be set in their own facility at the northwest corner of the deck.

6.1 HISTORICAL ARCHAEOLOGICAL RESOURCES

The cultural resources study of the Proposed Project sites has identified the former Hermosa Beach City Dump/landfill and the associated furnace as a potentially significant archaeological resource. The records and literature search completed at the Regional Information Center revealed that no significant previously recorded archaeological sites have been reported within the Proposed Project sites. However, the City Dump and furnace have not previously been evaluated or recorded. Geologic coring showed that subsurface deposits exist in the lower layers of the dump. With items such as glass, porcelain, and ceramics present, this historic landfill potentially contains consumer behavioral data dating to the early 1920s. Hazardous constituents are present as well (lead and TPHs). Recycling and incineration were among the approaches to refuse disposal explored in the City of Los Angeles during the early 1900s (Livingstone et al. 2006:421–460). Investigations at the former Pacific Garbage Reduction Plant (CA-LAN-2770H) revealed that archaeological deposits can be present on this site type. Excavations revealed that important information can be gained about municipal operations during a period of refuse collection crisis, which occurred from the 1880s through the 1940s as municipalities struggled to cope with excessive waste disposal in uncontrolled neighborhood dumps (CA-LAN-2121/H), in the City's streets, and in surrounding stream courses (e.g., Los Angeles River). The City Dump at Hermosa Beach may have this data potential, as well. This site is considered potentially eligible at the local level under the City of Hermosa Beach Municipal Code, Chapter 17.53: Historic Resources Preservation, Criterion B.

- B. It is identified withevents significant in local, state, or national history...;

And under Criterion 4 of the CRHR:

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

Similarly, the brick and mortar refuse burner or furnace contained within the City Maintenance Building may yield information about site operations and refuse disposal practices in Hermosa Beach during the early to mid twentieth century. The completeness of this structure is not known, although its original footprint is fully subsumed in the larger maintenance building. Whether only a remnant remains and the structure represents ruins of the former building, what is visible inside the maintenance building (hearth, chimney, arched ceiling, and ghosts of the lifting mechanisms) reflect elements of this early 1920s industrial structure. Removal of later-period additions likely will reveal additional information about the incineration and recycling practice employed by the City of Hermosa Beach between 1927 and 1947.

Little to no information was found on this facility during the records search and archival research. Therefore, the physical remains of the building ruins and any associated archaeological deposits may represent the only opportunity to further investigate this element of the City industrial history. The site has the potential to yield information important in history—specifically, industrial operations of this 1920s–1940s facility. The refuse burner, because it is potentially in ruins, is considered an archaeological component of the City landfill in accordance with the Office of Historic Preservation definition of a “site” (OHP: 2000:5). The refuse burner is considered potentially eligible under Criterion B of the Hermosa Beach Municipal Code and Criterion 4 of the CRHR, as stated above.

As discussed in Section 2 “Regulatory Context” CEQA Guidelines, Section 15064.5 provides criteria for determining a substantial adverse change to the significance of a cultural resource:

- Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- The significance of an historical resource is materially impaired when a project: Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources.

As currently planned, the Proposed Project entails construction during two phases. Phases 1 and 3 will entail demolition and ground-disturbing activities at the Oil Production site. It will include the complete removal of all buildings and at least 15 feet of the dump deposits (NMG Geotechnical 2012:21).

Additional historical research should be undertaken to confirm the significance of the site’s refuse burner and landfill. Such research, should include but not be limited to, a visit to the

Hermosa Beach Historical Society, which was not possible during the current study. Further, the study of local newspapers was beyond the current level of effort. Historical descriptions and/or operational papers for the facility should be sought. They may be more revealing than actual documentation of the physical remains on the site.

In the absence of such data, monitoring should include but not be limited to observing the removal of deposits from the City Dump down to the level of significant deposits (those dating to the period of residential refuse disposal and to be determined during further archival investigation). If excavations to this depth are not required by the Proposed Project, then the lower deposits should be protected in place. Monitoring should also be undertaken as the City Maintenance Building is dismantled. Documentation of the original brick and mortar building elements should be undertaken.

Prior to the beginning of ground-disturbing activities or building removal, a Monitoring Plan should be developed by a qualified archaeologist and include provisions for archaeological and Native American monitoring, background research on the City Dump and refuse burner, monitoring of removal and detailed documentation of all early nineteenth-century dump deposits exposed during ground-disturbing site work, development of a clear artifact collection policy and disposition and/or curation policy, and detailed guidelines on monitoring demolition of the extant later addition to the furnace. Detailed documentation of the brick and mortar furnace should be undertaken. Documentation should be guided by Historic American Engineering Record (HAER) standards. This documentation need only entail taking of high quality 35-mm photographs and production of plan drawings of building elements exposed (i.e., floorplan, character-defining elements, and elevation drawings).

All work carried out pursuant to this plan shall be conducted by, or under the direct supervision of a person or persons meeting, at a minimum, the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-39 as revised in 1994). A written report detailing monitoring activities shall be provided to the City upon completion of the monitoring work. The HAER documentation can be incorporated into this report which should also be filed with the Hermosa Beach Historical Society. Upon approval, a final copy would be submitted to the SCCIC.

6.2 PREHISTORIC SITE SENSITIVITY AND NATIVE AMERICAN CONCERNS:

Additionally, Mr. Robert Dorame of the Gabrieleno Tongva Indians of California Tribal Council and Mr. Sam Dunlap, Cultural Resources Director, Gabrielino Tongva Nation requested monitoring by a qualified archaeologist and a Native American monitor of all project-related ground-disturbing activities.

In light of these Native American concerns, the previously recorded prehistoric site within 0.3 mi of the project, and Mr. Dorame's discovery of shell nearby, the mitigation Monitoring Plan should also provide guidelines for Native American monitoring of construction of the new Public Works Facility and pipeline excavations. Implementation of these mitigation measures would be needed to reduce potential impacts to a level below significant.

6.3 PALEONTOLOGICAL SITE SENSITIVITY

Based on the paleontological literature review and museum records search results outlined in Appendix B, and in accordance with the SVP's sensitivity scale, the unconsolidated Holocene dune sand and drift sand (Qsp) mapped within the Proposed Project sites is determined to have a low paleontological resource potential. However, should Project-related excavations exceed 45 feet in depth at the City Dump/landfill, or depths of 15 feet along the pipelines, or otherwise impact intact San Pedro Sand deposits as described in Section 5.3 above, then further paleontological resource management, including the development and implementation of a Paleontological Resources Monitoring and Mitigation Plan (PRMP), is recommended.

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CONFIDENTIAL

APPENDIX A

**ARCHAEOLOGICAL RECORDS
AND LITERATURE SEARCH**

Not for Public Distribution

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
anthro.fullerton.edu/sccic.html - sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

October 10, 2013

SCCIC #13411.0089

Ms. Joan George
Applied EarthWorks, Inc
3550 E Florida Ave., Ste.H
Hemet, CA 92544
(951) 766-2000

RE: Hermosa Beach E & B Oil Development Project, 555 6th Street/552 11th Place

Dear Ms. George,

As per your request received on October 10, 2013, a records search was conducted for the above referenced project. The search includes a review of all recorded archaeological sites within a 1/2-mile radius of the project site as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), and the California State Historic Resources Inventory (HRI) listings were reviewed for the above referenced project. The following is a discussion of the findings.

Redondo Beach, CA USGS 7.5' Quadrangle

MAPPED ARCHAEOLOGICAL RESOURCES:

One archaeological site (19-001872) has been identified on our maps within a 1/2-mile radius of the project site. No archaeological sites are located within the project site. No sites are listed on the Archaeological Determination of Eligibility (DOE) list. No isolates have been identified within a 1/2-mile radius of the project site. No isolates are located within the project site.

MAPPED HISTORIC BUILT-ENVIRONMENT RESOURCES:

Three above-ground historic resources (19-186114, 19-186751, 19-186927) have been identified on our maps within a 1/2-mile radius of the project site. No above-ground historic resources are located within the project site.

ADDITIONAL CULTURAL RESOURCES (all other listings)

The **California Historic Resources Inventory (HRI)** lists three properties that have been evaluated for historical significance within a 1/2-mile radius of the project site (**see**

enclosed list). These are additional resources that are listed in the Historic Property Data File and are located either within the project site or within the search radius.

The **California Point of Historical Interest (SPHI)** of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1/2-mile radius of the project site.

The **California Historical Landmarks (SHL)** of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1/2-mile radius of the project site.

The **California Register of Historical Resources (CAL REG)** lists two properties within a 1/2-mile radius of the project site (**+see enclosed list**). These are properties determined to have a National Register of Historic Places Status of 1 or 2, a California Historical Landmark numbering 770 and higher, or a Point of Historical Interest listed after 1/1/1998.

The **National Register of Historic Places (NRHP)** lists no properties within a 1/2-mile radius of the project site.

HISTORIC MAPS:

Copies of our historic maps – Redondo, CA (1896 & 1944) 15' USGS - are enclosed for your review.

PREVIOUS CULTURAL RESOURCES INVESTIGATIONS:

Thirteen studies (LA2189, LA61297, LA2499, LA2904*, LA3265, LA4756, LA5251, LA6205, LA6207, LA8799, LA10068, LA10132) have been conducted within a 1/2-mile radius of the project site. Of these, one is located within the project site. There are eight additional investigations located on the Redondo Beach, CA 7.5' USGS Quadrangle that are potentially within a 1/2-mile radius of the project site. These reports are not mapped due to insufficient locational information.

(= Located within the project site)*

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you **do not include** resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm.

Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

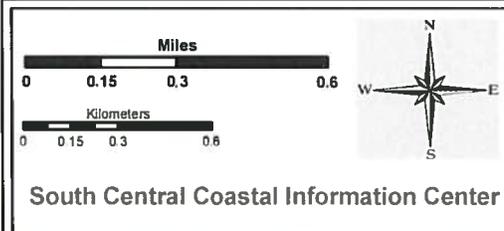
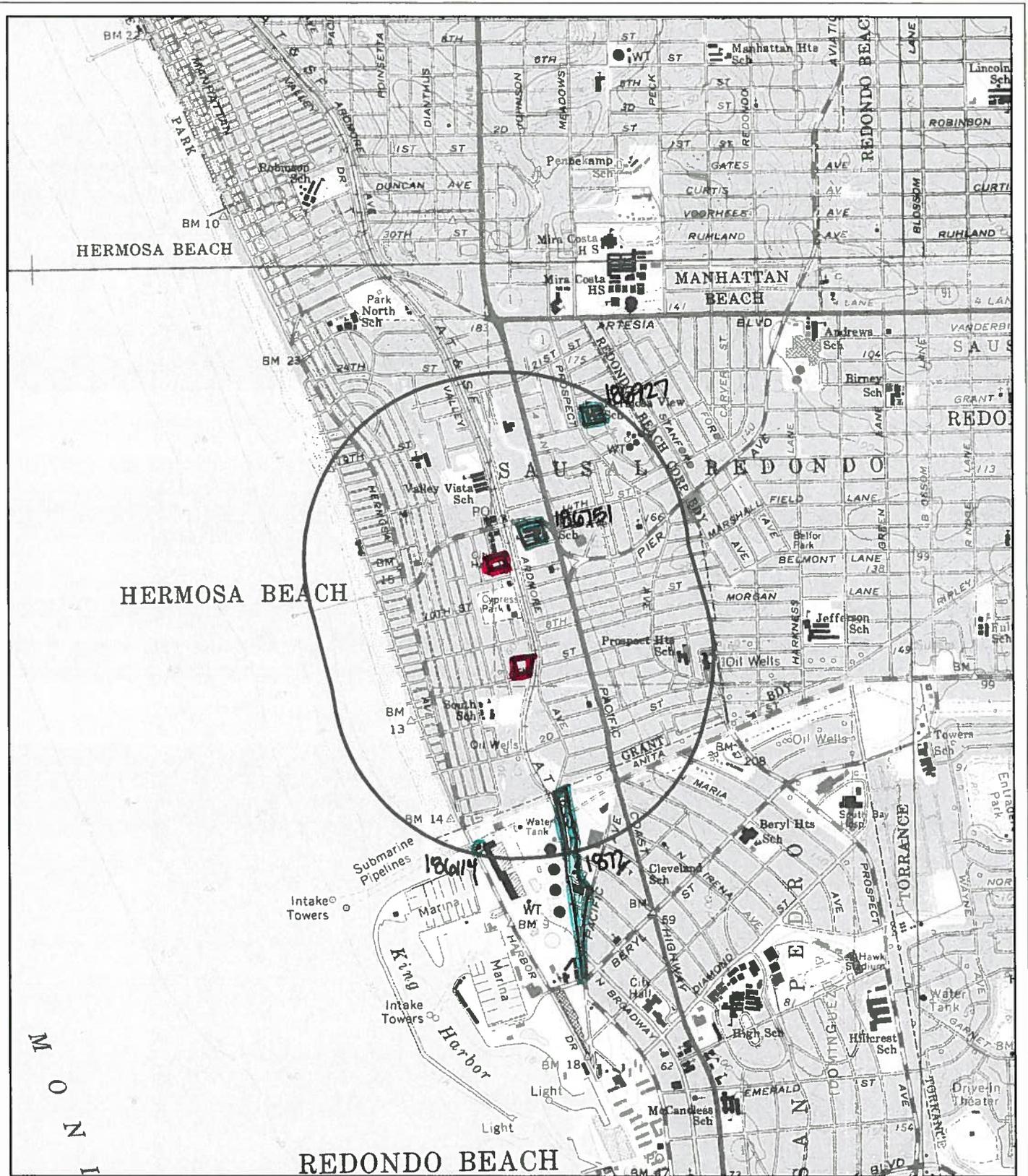
Sincerely,
SCCIC



Lindsey Noyes
Lead Staff Researcher

Enclosures:

- (X) Maps – Redondo Beach, CA 7.5' USGS Quadrangle, Redondo, CA (1896 & 1944)
15' USGS Quadrangle – 6 pages
- (X) Bibliography – 6 pages
- (X) HRI – 1 page
- (X) National Register Status Codes – 1 page
- (X) Site Records – (19-001872, 19-186114, 19-186751, 19-186927) – 26 pages
- (X) Survey Reports – (LA2904) – 15 pages
- (X) Invoice #13411.0089

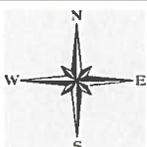
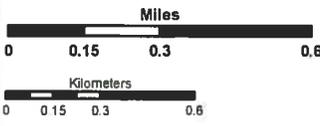
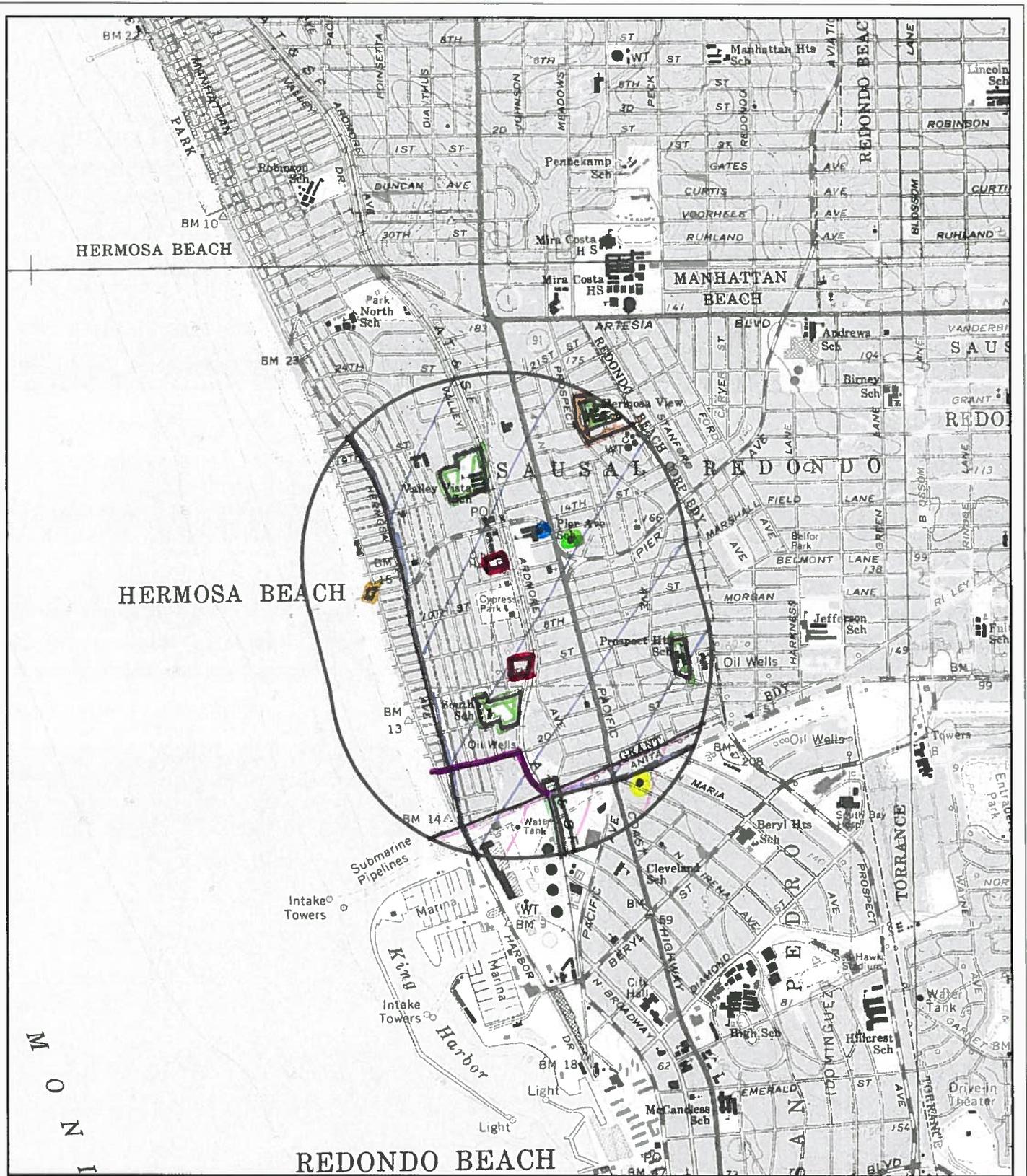


Hermosa Beach E & B Oil
 19-001872
 19-186114
 19-186751
 19-186927

Redondo, CA
USGS 7.5'
 PR: 1981 | 1:24,000
 Inv. #13411
 October 2013

May contain confidential information, NOT for public distribution

Map 1 of 2



South Central Coastal Information Center

Hermosa Beach E & B Oil
 LA2499 LA2904 LA1756
 LA10132 LA2189 LA2197
 LA9251 LA1006 LA3205
 LA10066 LA1005
 LA1006 LA899

Redondo, CA
 USGS 7.5'
 PR: 1981 | 1:24,000
 Inv. #13411
 October 2013

May contain confidential information, NOT for public distribution

Map 2 of 2

SCCIC Bibliography: Redondo Beach, CA Quad Unmappables

LA-03511

Author(s): Romani, John F.

Year: 1977

Title: Assessment of the Archaeological Impact by the Development of the Waste Water Facilities Plan W.o. 31389

Affiliation: Northridge Archaeological Research Center, CSUN

Resources: 19-000009, 19-000043, 19-000053, 19-000055, 19-000056, 19-000057, 19-000058, 19-000061, 19-000062, 19-000064, 19-000065, 19-000068, 19-000203, 19-000204, 19-000206, 19-000211, 19-000212, 19-000343

Quads: ACTON, ADOBE MTN, AGUA DULCE, ALPINE BUTTE, AZUSA, BALDWIN PARK, BEVERLY HILLS, BLACK MTN, BURBANK, BURNT PEAK, CALABASAS, CANOGA PARK, CHILAO FLAT, COBBLESTONE MTN, CONDOR PEAK, CRYSTAL LAKE, DEL SUR, EL MIRAGE, EL MONTE, FAIRMONT BUTTE, FRAZIER MOUNTAIN, GLENDORA, GREEN VALLEY, HI VISTA, HOLLYWOOD, INGLEWOOD, JACKRABBIT HILL, JUNIPER HILLS, LA HABRA, LA LIEBRE RANCH, LAKE HUGHES, LANCASTER EAST, LANCASTER WEST, LEBEC, LIEBRE MTN, LITTLE BUTTES, LITTLEROCK, LONG BEACH, LOS ALAMITOS, LOS ANGELES, LOVEJOY BUTTES, MALIBU BEACH, MESCAL CREEK, MINT CANYON, MOUNT SAN ANTONIO, MT BALDY, MT WILSON, NEENACH SCHOOL, NEWHALL, OAT MOUNTAIN, ONTARIO, PACIFICO MOUNTAIN, PALMDALE, PASADENA, POINT DUME, REDMAN, REDONDO BEACH, RITTER RIDGE, ROGERS LAKE SOUTH, ROSAMOND, ROSAMOND LAKE, SAN DIMAS, SAN FERNANDO, SAN PEDRO, SANTA SUSANA, SLEEPY VALLEY, SOUTH GATE, SUNLAND, THOUSAND OAKS, TOPANGA, TORRANCE, TRIUNFO PASS, VAL VERDE, VALYERMO, VAN NUYS, VENICE, WARM SPRINGS MOUNTAIN, WATERMAN MTN, WHITAKER PEAK, WHITTIER, YORBA LINDA

Pages: 18

Notes: Mapped to entire LA County in Other Reports layer, GIS

LA-03609

Author(s): Duncan-Abrams, Marguerite and Barbara Milkovich

Year: 1995

Title: City of Redondo Beach Historic Context Statement

Affiliation: Historical Resource Management

Resources:

Quads: INGLEWOOD, REDONDO BEACH, TORRANCE, VENICE

Pages: 90

Notes: Mapped to City of Redondo in Other Reports layer.

LA-04323

Author(s): Hill, James N.

Year: 1985

Title: Cultural Evolution in the Archaic/mesolithic: a Research Design for the Los Angeles Basin

Affiliation: Archaeological Resource Management Corp.

Resources:

Quads: ACTON, ADOBE MTN, AGUA DULCE, ALPINE BUTTE, AZUSA, BALDWIN PARK, BEVERLY HILLS, BLACK MTN, BURBANK, BURNT PEAK, CALABASAS, CANOGA PARK, CHILAO FLAT, COBBLESTONE MTN, CONDOR PEAK, CRYSTAL LAKE, DEL SUR, EL MIRAGE, EL MONTE, FAIRMONT BUTTE, FRAZIER MOUNTAIN, GLENDORA, GREEN VALLEY, HI VISTA, HOLLYWOOD, INGLEWOOD, JACKRABBIT HILL, JUNIPER HILLS, LA HABRA, LA LIEBRE RANCH, LAKE HUGHES, LANCASTER EAST, LANCASTER WEST, LEBEC, LIEBRE MTN, LITTLE BUTTES, LITTLEROCK, LONG BEACH, LOS ALAMITOS, LOS ANGELES, LOVEJOY BUTTES, MALIBU BEACH, MESCAL CREEK, MINT CANYON, MOUNT SAN ANTONIO, MT BALDY, MT WILSON, NEENACH SCHOOL, NEWHALL, OAT MOUNTAIN, ONTARIO, PACIFICO MOUNTAIN, PALMDALE, PASADENA, POINT DUME, REDMAN, REDONDO BEACH, RITTER RIDGE, ROGERS LAKE SOUTH, ROSAMOND, ROSAMOND LAKE, SAN DIMAS, SAN FERNANDO, SAN PEDRO, SANTA SUSANA, SLEEPY VALLEY, SOUTH GATE, SUNLAND, THOUSAND OAKS, TOPANGA, TORRANCE, TRIUNFO PASS, VAL VERDE, VALYERMO, VAN NUYS, VENICE, WARM SPRINGS MOUNTAIN, WATERMAN MTN, WHITAKER PEAK, WHITTIER, YORBA LINDA

Pages: 124

Notes: Mapped to entire LA County (except islands) in Other Reports.

SCCIC Bibliography: Redondo Beach, CA Quad Unmappables

LA-11138

Author(s): Pierson, Larry, Shiner, Gerald, and Slater, Richard

Year: 1987

Title: California Outer Continental Shelf, Archaeological Resource Study: Morro Bay to Mexican Border, Final Report.

Affiliation: PS Associates

Resources:

Quads: BEVERLY HILLS, DANA POINT, LAGUNA BEACH, LONG BEACH, MALIBU BEACH, NEWPORT BEACH, OXNARD, PITAS POINT, POINT DUME, POINT MUGU, REDONDO BEACH, SAN CLEMENTE, SAN JUAN CAPISTRANO, SAN PEDRO, SANTA CATALINA EAST, SANTA CATALINA NORTH, SANTA CATALINA SOUTH, SANTA CATALINA WEST, SEAL BEACH, TOPANGA, TRIUNFO PASS, VENICE, VENTURA, WHITE LEDGE PEAK

Pages: 516

Notes: also VN-02974 & OR-04082- Mapped to a 1/4 mile buffer zone along the coast of all 3 counties.

LA-11406

Author(s): Unknown

Year: 2003

Title: Completing the California Coastal Trail (also OR-4148 & VN-3011)

Affiliation: Unknown

Resources:

Quads: BEVERLY HILLS, DANA POINT, LAGUNA BEACH, LONG BEACH, MALIBU BEACH, NEWPORT BEACH, OXNARD, PITAS POINT, POINT DUME, POINT MUGU, REDONDO BEACH, SAN CLEMENTE, SAN JUAN CAPISTRANO, SAN PEDRO, SEAL BEACH, TOPANGA, TRIUNFO PASS, VENICE, VENTURA

Pages: 53

Notes: Also OR-4148 and VN-3011-Mapped to a 1/8 mile buffer of coastal land in Other Reports

LA-11484

Author(s): Walker, E.F. and Robinson, Eugene

Year:

Title: Partial List of Indian Village Sites in Lost [sic] Angeles County, with a few in Orange County. (Information from Eugene Robinson, Handwritten, in "Reconnaissance Sites 15F" looseleaf notebook of Mr. E.F. Walker, Southwest Museum, Los Angeles, California)

Affiliation: Southwest Museum

Resources:

Quads: AZUSA, BALDWIN PARK, BEVERLY HILLS, CALABASAS, CHILAO FLAT, CONDOR PEAK, INGLEWOOD, LONG BEACH, LOS ALAMITOS, LOS ANGELES, MT WILSON, REDONDO BEACH, SAN PEDRO, SANTA CATALINA EAST, SUNLAND, TOPANGA, TORRANCE, VENICE

Pages: 6

Notes: Mapped to quads in GIS as Other Report. Also recorded as OR4157

SCCIC Bibliography: Redondo Beach, CA Quad Unmappables

LA-11747

Author(s): Sakai, Rodney

Year: 2006

Title: Programmatic Agreement Compliance Report, twenty-first Reporting Period, July 1, 2005-- March 31, 2006

Affiliation: Historic Resources Group

Resources:

Quads: ACTON, ADOBE MTN, AGUA DULCE, ALPINE BUTTE, AZUSA, BALDWIN PARK, BEVERLY HILLS, BLACK MTN, BURBANK, BURNT PEAK, CALABASAS, CANOGA PARK, CHILAO FLAT, COBBLESTONE MTN, CONDOR PEAK, CRYSTAL LAKE, DEL SUR, EL MIRAGE, EL MONTE, FAIRMONT BUTTE, FRAZIER MOUNTAIN, GLENDORA, GREEN VALLEY, HI VISTA, HOLLYWOOD, INGLEWOOD, JACKRABBIT HILL, JUNIPER HILLS, LA HABRA, LA LIEBRE RANCH, LAKE HUGHES, LANCASTER EAST, LANCASTER WEST, LEBEC, LIEBRE MTN, LITTLE BUTTES, LITTLEROCK, LONG BEACH, LOS ALAMITOS, LOS ANGELES, LOVEJOY BUTTES, MALIBU BEACH, MESCAL CREEK, MINT CANYON, MOUNT SAN ANTONIO, MT BALDY, MT WILSON, NEENACH SCHOOL, NEWHALL, OAT MOUNTAIN, ONTARIO, PACIFICO MOUNTAIN, PALMDALE, PASADENA, POINT DUME, REDMAN, REDONDO BEACH, RITTER RIDGE, ROGERS LAKE SOUTH, ROSAMOND, ROSAMOND LAKE, SAN DIMAS, SAN FERNANDO, SAN PEDRO, SANTA SUSANA, SLEEPY VALLEY, SOUTH GATE, SUNLAND, THOUSAND OAKS, TOPANGA, TORRANCE, TRIUNFO PASS, VAL VERDE, VALYERMO, VAN NUYS, VENICE, WARM SPRINGS MOUNTAIN, WATERMAN MTN, WHITAKER PEAK, WHITTIER, YORBA LINDA

Pages: 80

Notes: Mapped to entire LA County in Other Reports layer

LA-11748

Author(s): Sakai, Rodney

Year: 2003

Title: Programmatic Agreement Compliance Report Fifteenth Reporting Period July 1-- December 31, 2002

Affiliation: SHPO & Advisory Council on Historic Preservation

Resources:

Quads: ACTON, ADOBE MTN, AGUA DULCE, ALPINE BUTTE, AZUSA, BALDWIN PARK, BEVERLY HILLS, BLACK MTN, BURBANK, BURNT PEAK, CALABASAS, CANOGA PARK, CHILAO FLAT, COBBLESTONE MTN, CONDOR PEAK, CRYSTAL LAKE, DEL SUR, EL MIRAGE, EL MONTE, FAIRMONT BUTTE, FRAZIER MOUNTAIN, GLENDORA, GREEN VALLEY, HI VISTA, HOLLYWOOD, INGLEWOOD, JACKRABBIT HILL, JUNIPER HILLS, LA HABRA, LA LIEBRE RANCH, LAKE HUGHES, LANCASTER EAST, LANCASTER WEST, LEBEC, LIEBRE MTN, LITTLE BUTTES, LITTLEROCK, LONG BEACH, LOS ALAMITOS, LOS ANGELES, LOVEJOY BUTTES, MALIBU BEACH, MESCAL CREEK, MINT CANYON, MOUNT SAN ANTONIO, MT BALDY, MT WILSON, NEENACH SCHOOL, NEWHALL, OAT MOUNTAIN, ONTARIO, PACIFICO MOUNTAIN, PALMDALE, PASADENA, POINT DUME, REDMAN, REDONDO BEACH, RITTER RIDGE, ROGERS LAKE SOUTH, ROSAMOND, ROSAMOND LAKE, SAN DIMAS, SAN FERNANDO, SAN PEDRO, SANTA SUSANA, SLEEPY VALLEY, SOUTH GATE, SUNLAND, THOUSAND OAKS, TOPANGA, TORRANCE, TRIUNFO PASS, VAL VERDE, VALYERMO, VAN NUYS, VENICE, WARM SPRINGS MOUNTAIN, WATERMAN MTN, WHITAKER PEAK, WHITTIER, YORBA LINDA

Pages: 55

Notes: Mapped to entire LA County in Other Reports layer

SCCIC Bibliography: Hermosa Beach E&B Oil Project

LA-02189

Author(s): Demcak, Carol R.
Year: 1990
Title: Archaeological Assessment of the Property Located at 8111 North Catalina Avenue, Redondo Beach, County of Los Angeles, Californ
Affiliation: Archaeological Resource Management Corp.
Resources: 19-001872
Quads: REDONDO BEACH
Pages:
Notes:

LA-02197

Author(s): Romani, Gwendolyn R.
Year: 1990
Title: Archaeological Investigations at 811 North Catalina Avenue for He Proposed Commercial/Industrial Mini-storage Located in Redondo Baech, Los Angeles County, California
Affiliation: Greenwood and Associates
Resources: 19-001872
Quads: REDONDO BEACH
Pages:
Notes:

LA-02499

Author(s): McKenna, Jeanette A.
Year: 1991
Title: Results of a Standard Prehistoric Archaeological Records Check, City of Redondo Beach, Los Angeles County, California - General Plan Eir
Affiliation: McKenna et al.
Resources: 19-000100, 19-000127, 19-000137, 19-000282, 19-001872
Quads: INGLEWOOD, VENICE
Pages:
Notes:

LA-02904

Author(s): Stickel, Gary E.
Year: 1993
Title: Draft Report a Phase I Cultural Resources Literature Search for the West Basin Water Reclamation Project
Affiliation: Environmental Research Archaeologists: A Scientific Consortium
Resources:
Quads: INGLEWOOD, REDONDO BEACH
Pages:
Notes:

SCCIC Bibliography: Hermosa Beach E&B Oil Project

LA-03265

Author(s): Hatheway, Roger G.
Year: 1983
Title: Cultural Resources Assessment of the General Plan and Zone Changes for the Hermosa Beach School District Properties Hermosa Beach, California
Affiliation: Jim Hinzdel & Associates
Resources:
Quads: REDONDO BEACH
Pages:
Notes:

LA-04756

Author(s): Gray, Deborah
Year: 1999
Title: Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 474-02, in the County of Los Angeles, California
Affiliation: LSA Associates, Inc.
Resources:
Quads: REDONDO BEACH
Pages:
Notes:

LA-05251

Author(s): Romani, Gwendolyn R.
Year: 1990
Title: Archaeological Investigations at 811 North Catalina Avenue for the Proposed Commercial/Industrial Mini-storage Located in Redondo Beach, Los Angeles County, Ca
Affiliation: Greewood & Associates
Resources: 19-000127, 19-000137, 19-000383, 19-001872
Quads: REDONDO BEACH
Pages:
Notes:

LA-06205

Author(s): Pletka, Nicole
Year: 2003
Title: Cultural Resource Assessment at & T Wireless Services Facility No. D158 Hermosa Beach, Los Angeles County, California
Affiliation: LSA Associates, Inc.
Resources:
Quads: REDONDO BEACH
Pages:
Notes:

SCCIC Bibliography: Hermosa Beach E&B Oil Project

LA-06207

Author(s): Duke, Curt
Year: 2002
Title: Cultural Resource Assessment at & T Wireless Services Facility No. D158d Los Angeles County, California
Affiliation: LSA Associates, Inc.
Resources:
Quads: REDONDO BEACH
Pages:
Notes:

LA-08799

Author(s): Bonner, Wayne H.
Year: 2007
Title: Cultural Resources Records Search and Site Visit Results for Royal Street Communications, Llc Candidate La2619a (redondo Beach Sce), 834 North Lucia Avenue, Redondo Beach, Los Angeles County, California
Affiliation: Michael Brandman Associates
Resources:
Quads: REDONDO BEACH
Pages:
Notes:

LA-10068

Author(s): Carmack, Shannon and Judith Marvin
Year: 2004
Title: Cultural Resources Assessment Hermosa Valley High School Gymnasium and Classrooms Project City of Hermosa Beach, Los Angeles County, California
Affiliation: LSA Associates, Inc.
Resources: 19-186927
Quads: REDONDO BEACH
Pages:
Notes:

LA-10132

Author(s): Johnson, Ken
Year: 1965
Title: Fun, Frustration and Fulfillment an Historical Study of the City of Redondo Beach
Affiliation: Unkown
Resources:
Quads: INGLEWOOD, REDONDO BEACH, TORRANCE, VENICE
Pages: 123
Notes:

California Historical Resource Status Codes

1 Properties listed in the National Register (NR) or the California Register (CR)

- 1D Contributor to a district or multiple resource property listed in NR by the Keeper. Listed in the CR.
- 1S Individual property listed in NR by the Keeper. Listed in the CR.

- 1CD Listed in the CR as a contributor to a district or multiple resource property by the SHRC
- 1CS Listed in the CR as individual property by the SHRC.
- 1CL Automatically listed in the California Register – Includes State Historical Landmarks 770 and above and Points of Historical Interest nominated after December 1997 and recommended for listing by the SHRC.

2 Properties determined eligible for listing in the National Register (NR) or the California Register (CR)

- 2B Determined eligible for NR as an individual property and as a contributor to an eligible district in a federal regulatory process. Listed in the CR.
- 2D Contributor to a district determined eligible for NR by the Keeper. Listed in the CR.
- 2D2 Contributor to a district determined eligible for NR by consensus through Section 106 process. Listed in the CR.
- 2D3 Contributor to a district determined eligible for NR by Part I Tax Certification. Listed in the CR.
- 2D4 Contributor to a district determined eligible for NR pursuant to Section 106 without review by SHPO. Listed in the CR.
- 2S Individual property determined eligible for NR by the Keeper. Listed in the CR.
- 2S2 Individual property determined eligible for NR by a consensus through Section 106 process. Listed in the CR.
- 2S3 Individual property determined eligible for NR by Part I Tax Certification. Listed in the CR.
- 2S4 Individual property determined eligible for NR pursuant to Section 106 without review by SHPO. Listed in the CR.

- 2CB Determined eligible for CR as an individual property and as a contributor to an eligible district by the SHRC.
- 2CD Contributor to a district determined eligible for listing in the CR by the SHRC.
- 2CS Individual property determined eligible for listing in the CR by the SHRC.

3 Appears eligible for National Register (NR) or California Register (CR) through Survey Evaluation

- 3B Appears eligible for NR both individually and as a contributor to a NR eligible district through survey evaluation.
- 3D Appears eligible for NR as a contributor to a NR eligible district through survey evaluation.
- 3S Appears eligible for NR as an individual property through survey evaluation.

- 3CB Appears eligible for CR both individually and as a contributor to a CR eligible district through a survey evaluation.
- 3CD Appears eligible for CR as a contributor to a CR eligible district through a survey evaluation.
- 3CS Appears eligible for CR as an individual property through survey evaluation.

4 Appears eligible for National Register (NR) or California Register (CR) through other evaluation

- 4CM Master List - State Owned Properties – PRC §5024.

5 Properties Recognized as Historically Significant by Local Government

- 5D1 Contributor to a district that is listed or designated locally.
- 5D2 Contributor to a district that is eligible for local listing or designation.
- 5D3 Appears to be a contributor to a district that appears eligible for local listing or designation through survey evaluation.

- 5S1 Individual property that is listed or designated locally.
- 5S2 Individual property that is eligible for local listing or designation.
- 5S3 Appears to be individually eligible for local listing or designation through survey evaluation.

- 5B Locally significant both individually (listed, eligible, or appears eligible) and as a contributor to a district that is locally listed, designated, determined eligible or appears eligible through survey evaluation.

6 Not Eligible for Listing or Designation as specified

- 6C Determined ineligible for or removed from California Register by SHRC.
- 6J Landmarks or Points of Interest found ineligible for designation by SHRC.
- 6L Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning.
- 6T Determined ineligible for NR through Part I Tax Certification process.
- 6U Determined ineligible for NR pursuant to Section 106 without review by SHPO.
- 6W Removed from NR by the Keeper.
- 6X Determined ineligible for the NR by SHRC or Keeper.
- 6Y Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing.
- 6Z Found ineligible for NR, CR or Local designation through survey evaluation.

7 Not Evaluated for National Register (NR) or California Register (CR) or Needs Reevaluation

- 7J Received by OHP for evaluation or action but not yet evaluated.
- 7K Resubmitted to OHP for action but not reevaluated.
- 7L State Historical Landmarks 1-769 and Points of Historical Interest designated prior to January 1998 – Needs to be reevaluated using current standards.
- 7M Submitted to OHP but not evaluated - referred to NPS.
- 7N Needs to be reevaluated (Formerly NR Status Code 4)
- 7N1 Needs to be reevaluated (Formerly NR SC4) – may become eligible for NR w/restoration or when meets other specific conditions.
- 7R Identified in Reconnaissance Level Survey: Not evaluated.
- 7W Submitted to OHP for action – withdrawn.

081634		4907 W 120TH ST		HAWTHORNE	U	1925	PROJ.REVW.	HUD871027C	10/30/89	6Y	
125735		5040 W 125TH ST		HAWTHORNE	U	1944	HIST.RES.	DOE-19-99-0377-0000	06/14/99	6Y	
129342		4746 W 131TH ST		HAWTHORNE	P	1948	PROJ.REVW.	HUD990614F	06/14/99	6Y	
129343		3542 W 139TH ST		HAWTHORNE	P	1952	HIST.RES.	DOE-19-02-0009-0000	01/14/02	6Y	
					P	1952	PROJ.REVW.	HUDD020110F	01/14/02	6Y	
					P	1952	HIST.RES.	DOE-19-02-0010-0000	01/14/02	6Y	
					P	1952	PROJ.REVW.	HUDD020110D	01/14/02	6Y	
124777		200 PIER AVE		HERMOSA BEACH	P	1911	PROJ.REVW.	FCC0000601G	06/15/00	6Y	
+ 136566		710 PIER AVE		HERMOSA BEACH COMMUNITY CENTER	M	1911	PROJ.REVW.	HUDD030710C	11/14/03	2B2	
							HIST.RES.	DOE-19-02-1170-0000	12/18/02	6Y	
							PROJ.REVW.	FCC020909B	12/18/02	6Y	
							HIST.RES.	DOE-19-94-0461-0000	06/19/94	2B2	A
+ 097750		861 VALLEY DR		HERMOSA BEACH	M	1937	PROJ.REVW.	HRG940202Z	06/19/94	2B2	A
150044		277 S AVE 55		HIGHLAND PARK	P	1924	HIST.RES.	DOE-19-04-0159-0000	09/30/04	6Y	
					P	1924	PROJ.REVW.	HUDD041006D	09/30/04	6Y	
109941		1750 ARGYLE AVE		HOLLYWOOD	P	1934	HIST.RES.	DOE-19-97-0006-0000	08/01/97	2B2	
094292		2680 CAHUENGA BLVD		HOLLYWOOD	C	1930	PROJ.REVW.	HUD970717A	08/01/97	2B2	
100882		5800 HAROLD WY		HOLLYWOOD	P	1909	HIST.RES.	DOE-19-94-0443-9999	01/19/95	2B2	ABC
100888		5812 HAROLD WY		HOLLYWOOD	P	1909	PROJ.REVW.	HRG940202Z	02/08/94	6Y	
100886		5824 HAROLD WY		HOLLYWOOD	P	1906	PROJ.REVW.	DOE-19-94-0443-0004	02/08/94	6Y	
100889		5825 HAROLD WY		HOLLYWOOD	P	1906	HIST.RES.	HRG940202Z	02/08/94	6Y	
100885		5832 HAROLD WY		HOLLYWOOD	P	1926	PROJ.REVW.	DOE-19-94-0443-0005	02/08/94	6Y	
100883		5846 HAROLD WY		HOLLYWOOD	P	1913	HIST.RES.	HRG940202Z	02/08/94	6Y	
021990	19-176738	LABAIG AVE		HOLLYWOOD	P	1911	PROJ.REVW.	DOE-19-94-0443-0001	02/08/94	6Y	
	19-168017	LABAIG AVE, 1500 BLOCK		HOLLYWOOD	P	1911	HIST.RES.	HRG940202Z	02/08/94	6Y	
132731		4643 LOS FELIZ BLVD		HOLLYWOOD	P	1929	HIST.RES.	DOE-19-02-0967-0000	05/22/02	2B2	
		THE LOS FELIZ MANOR		HOLLYWOOD	P	1929	PROJ.REVW.	FCC020503A	05/22/02	2B2	
084769		1221 N FORMOSA ST		HOLLYWOOD	P	1932	PROJ.REVW.	HUD930920B	11/22/93	6Y	
126759		1800 N LA BREA AVE		HOLLYWOOD	P	1922	HIST.RES.	DOE-19-00-0355-0000	10/20/00	6Y	
127571		1720 N VINE ST		HOLLYWOOD	P	1956	PROJ.REVW.	FCC000928B	10/20/00	6Y	
127573		1724 N VINE ST		HOLLYWOOD	P	1956	HIST.RES.	DOE-19-01-0120-0000	01/31/01	6Y	
084768		8724 RANGELY AVE		HOLLYWOOD	P	1926	PROJ.REVW.	HUDD010201B	01/31/01	6Y	
025032	19-176739	6376 YUCCA ST		HOLLYWOOD	P	1923	HIST.RES.	DOE-19-01-0121-0000	01/31/01	6Y	
		HALIFAX APARTMENTS		HOLLYWOOD	P	1926	PROJ.REVW.	HUDD010201B	01/31/01	6Y	
					P	1923	HIST.RES.	DOE-19-95-0203-0000	11/22/93	6Y	
					P	1923	TAX.CERT.	HUD930920a	12/27/95	2B2	AC
					P	1923	PROJ.REVW.	DOE-19-95-0203-0000	06/27/96	7J	
					P	1923	HIST.RES.	537.9-19-0198	12/27/95	2B2	AC
					P	1923	PROJ.REVW.	HUD951222K	12/27/95	2B2	AC
					P	1923	HIST.SURV.	0053-2425-0000	12/27/95	7N	
067829		MARCONI STREET HISTORIC DISTRICT		HUNTINGTON PARK	U		HIST.RES.	DOE-19-90-0056-9999	05/16/90	2B2	C
068304		HUNTINGTON PARK REC CENTER		HUNTINGTON PARK	U		PROJ.REVW.	HUD900402M	05/16/90	2B2	C
184558	4214 60TH ST			HUNTINGTON PARK	P	1924	PROJ.REVW.	HUD890427C	07/28/89	6Y	
184167	2556 67TH AVE			HUNTINGTON PARK	P	1925	PROJ.REVW.	HUDD100830R	09/23/10	6Y	

APPENDIX B

**PALEONTOLOGICAL RESOURCES REVIEW/
RECORDS SEARCH**

November 15, 2013

Mr. Luis Perez
Marine Research Specialists
3140 Telegraph Rd. Suite A
Ventura, CA 93003-3223

RE: Preliminary Assessment of the Paleontological Resource Potential of the E&B Oil Development Project, Hermosa Beach, California

Dear Mr. Perez:

At your request, Applied EarthWorks, Inc. (Æ) has performed a preliminary assessment of the paleontological resource potential of the proposed E&B Oil Development project (the Proposed Project) located at 555 6th Street between Valley Drive and Cypress Avenue in the City of Hermosa Beach (City), approximately seven blocks east of the beach (Appendix A). The scope of work included a museum records search and paleontologic/geologic literature review of the Proposed Project site. This letter serves as a summary of our findings.

Project Description

E&B Natural Resources Management Corporation (E&B) proposes the development of an onshore drilling and production site that would access the oil and gas reserves within the Torrance Oil Fields. Development would include directional drilling for 30 production wells, four injection wells, and construction of storage tanks and facilities. The 1.3-acre City-owned site is located on Assessor's Parcel Number (APN) 4187-031-900 and is currently used as the City Public Works Maintenance Yard. Specifically, the Project is located in Township 3 South, Range 15 West and Township 3 South, Range 14 West, within the Sausal Redondo Landgrant as shown on the Redondo Beach, CA U.S. Geological Survey quadrangle.

In the 1920s and 1930s, the northeastern portion of the Proposed Project site had a large depression that was mined for sand. Around 1927, the City's dump and refuse burner was located on the Proposed Project site and, by 1947, the depression was filled in. The resulting former landfill is approximately 45 feet deep and is filled with glass, porcelain, and ceramic towards the bottom and soils containing miscellaneous metals, wires, glass, and other materials toward the top (i.e., closer to the ground surface). As part of the Proposed Project, the Public Works Yard will be relocated to City-owned property approximately 0.5 miles north of the Proposed Project site, adjacent to the Hermosa Beach City Hall, in portions of APN 4187-020-907 and 4187-020-904. The Proposed Project includes an offsite pipeline for oil and gas. The pipeline would be 8 inches or less in diameter, located at a depth of approximately 3.5 to 4 feet below ground surface depending on the grade. At one of four potential valve box locations, the pipeline would tie-in to an existing pipeline that transports oil to a refinery. The development of the Proposed Project is subject to an environmental review, including preparation of an Environmental Impact Report (EIR), approval by the Hermosa Beach Planning Commission, and approval of a ballot measure that would modify the city-wide ban on oil drilling (City of Hermosa Beach 2013).



Regulatory Context

Paleontological resources (i.e., fossils) are the prehistoric remains of once-living organisms and are considered to be nonrenewable scientific resources. As such, they are protected under various federal, state, and local laws and regulations including the California Environmental Quality Act (CEQA). Specifically, in Section V(c) of Appendix G, the “Environmental Checklist Form,” the question is posed, “*Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*” In order to determine the uniqueness of a given paleontological resource, it must first be identified or recovered (i.e., salvaged). Therefore, mitigation of adverse impacts to paleontological resources is mandated by CEQA. The City of Hermosa Beach Municipal Code does not have mitigation requirements that specifically address potential adverse impacts to paleontological resources, therefore the Project should adhere to CEQA requirements.

Paleontological Resource Potential

Absent specific agency guidelines, most professional paleontologists in California adhere to the guidelines set forth by the Society of Vertebrate Paleontology (SVP) (2010) to determine the course of paleontological mitigation for a given project. These guidelines establish protocols for the assessment of the paleontological resource potential of underlying geologic units and outline measures to mitigate adverse impacts that could result from project development. Using baseline information gathered during a paleontological resource assessment, the paleontological resource potential of the geologic unit(s) (or members thereof) underlying a Project area can be assigned to one of four categories defined by SVP (2010). These categories include high, undetermined, low, and no paleontological resource potential.

In order to assess whether or not a particular project area has the potential to contain significant fossil resources at the subsurface, it is necessary to review published geologic mapping to determine the geology and stratigraphy of the area. Geologic units are considered to be “sensitive” for paleontological resources if they are known to contain significant fossils anywhere in their extent. Therefore, a search of pertinent local and regional museum repositories for paleontological localities within and nearby the project area is necessary to determine whether or not fossil localities have been previously discovered within a particular rock unit. For this Project, a museum records search was conducted at the Los Angeles County Museum of Natural History (LACM) on November 12, 2013. The records search was supplemented by a review of the University of California Museum of Paleontology’s online database (UCMP), which contains paleontological records for Los Angeles County.

Project Area Geology and Paleontology

The Proposed Project is located in the western coastal portion of the Los Angeles Basin Province; a lowland plain in Southern California bounded by the Santa Monica Mountains to the north, the Elysian and Puente Hills and on the east, and the Santa Ana Mountains and San Joaquin Hills in the southeast (Norris and Webb 1990). The Los Angeles Basin Province is composed of four structural blocks, whose boundaries are formed by major fault zones. The stratigraphy of the Los Angeles Basin is described in terms of the structural blocks, designated the southwestern, northwestern, central, and northeastern blocks (Yerkes et al. 1965). The Project is located on the southwestern block; a region approximately 28



miles long and 5 to 12 miles wide, bounded by Santa Monica to the north and Long Beach to the south. Significant geologic features in that area include, the Palos Verdes Hills, approximately 4 miles from the Proposed Project site, consisting of low hills and mesas that rise 1,300 feet over the basin floor; the Newport-Inglewood fault zone; the Palos Verdes Fault zone and underlying northwest-trending anticline; and a 25,000-foot thick deposit of Miocene to Holocene sedimentary and volcanic rocks (Yerkes et al. 1965). According to published geologic maps, the Project area is directly underlain by Holocene coastal sediments that consist of loose dune sand and drift sand (Qds) (Dibblee 1999) (Figure B-1). Immediately east of the Project area, the Holocene sand deposits grade into stabilized dunes of and fine-grained drift sand (Qos) of Late Pleistocene age. According to Dibblee (1999), it is likely that these surficial deposits shallowly overlie older Quaternary deposits known as the San Pedro Sand (Qsp), a unit within the San Pedro Formation (Woodring et al. 1946).

The San Pedro Formation (Early to Middle Pleistocene), commonly referred to as the lower San Pedro Series, has three units: from oldest to youngest, the Lomita Marl, Timms Point Silt, and San Pedro Sand (Woodring et al. 1946; Jacobs 2005). The San Pedro Sand is composed of horizontally- and cross-bedded sand, gravel, and silt. Its thickness ranges from 100 to 300 feet (Woodring et al. 1946; Powell and Steven 2000). According to published literature, the San Pedro Sand is associated with numerous paleontological localities. Near the coast, exposures in the Palos Verdes Hills show marine gastropods and bivalves (pelecypods) (Jacobs 2005). Further inland, localities have produced gastropods, bivalves, scaphopods, arthropods, and echinoids (Powell and Steven 2000). Numerous marine vertebrates have also been recovered from this unit in nearby San Pedro including fish, rays, and sharks. In addition, terrestrial vertebrates including *Equus* (horse) and numerous specimens representing Aves (birds) have been discovered in the San Pedro Sand. Fossil records are not available for the unconsolidated Holocene dune sand and drift sand. Deposits such as these typically have very low potential for fossilization of biologic material, and are often too young to contain fossils.

Records Search Results

To determine whether or not fossil localities have been previously discovered within the Project area or a particular rock unit, a record search for paleontological localities was performed at the Natural History Museum of Los Angeles County (LACM). The museum records show that there are no known localities within the surficial dune and drift sand. However, according to McLeod (2013), it is likely that the young surficial sediments shallowly overlie older Quaternary deposits in the Project area. These underlying Quaternary deposits have yielded vertebrate fossils at localities east of the Project area, sometimes at relatively shallow depth. McLeod (2013) reports three localities within the vicinity of the Project area. Locality LACM 4444 east of the Project area near Crenshaw Boulevard and 190th Street, yielded fossil specimens of *Equus* (horse), and Cetacea (whale), at a depth of 15 feet below the surface. Southeast of the Project area, near Crenshaw Boulevard and 236th Street, locality LACM 1839 produced a specimen of *Equus*, recovered from 35 feet below the surface. Near Prairie Avenue and 139th Street, northeast of the Project area, locality LACM 2035 produced a fossil specimen of *Mammuthus* (mammoth) at an unreported depth.

The museum records search was supplemented by a review of the University Of California Museum Of Paleontology's (UCMP) online database, which contains paleontological records for Los Angeles



County. The museum records indicate there are 87 fossil localities within the San Pedro Formation in Los Angeles County. Recovered fossil specimens include horse, camel, saber-tooth cat, rodent, rabbit, bird, sloth, bison, dire wolf, mollusk, and microfossils (UCMP online database).

Findings and Recommendations

Based on the literature review and museum records search results, and in accordance to the SVP's sensitivity scale, the unconsolidated Holocene dune sand and drift sand (Qds) mapped within the Proposed Project site is determined to have a low paleontological resource potential. However, the Pleistocene San Pedro Sand (Qsp), associated with numerous significant paleontological localities, is determined to have a high paleontological resources potential and may underlie the surficial deposits at varying depths. The depth at which the San Pedro Sand underlies the surficial sand deposits in the vicinity of the Proposed Project site is unknown, but may have ranged from approximately 15 feet to 50 feet prior to the development of the City dump (Dibblee 1999; McLeod 2013; Woodring et al. 1946). As previously stated, the former landfill is approximately 45 feet deep. Therefore, the likelihood of Project-related grading and excavations to reach underlying intact San Pedro Sand is low. However, should Project-related excavations exceed 45 feet in depth or otherwise impact intact Sand Pedro Sand deposits (i.e., along the pipeline route), then further paleontological resource management, including the development and implementation of a Paleontological Resources Monitoring and Mitigation Plan (PRMP), is recommended.

It has been a pleasure assisting you with this Project. If you have any questions, please do not hesitate to contact Jessica DeBusk at jdebusk@appliedearthworks.com or (626) 578-0119.

Sincerely,

Heather Clifford
Staff Paleontologist
Applied EarthWorks, Inc.

Jessica DeBusk
Paleontology Program Manager
Applied EarthWorks, Inc.



References

Dibblee, Thomas W. Jr.

- 1999 Geologic Map of the Palos Verdes Peninsula and Vicinity Redondo Beach, Torrance, and San Pedro Quadrangles, Los Angeles County, California. Edited by Helmut E. Ehrenspeck with Perry L. Ehlig and Wendy Lou Bartlett, 1999. Edited by John A. Minch, 2011. Published by and available from the Santa Barbara Museum of Natural History, Santa Barbara, CA.

City of Hermosa Beach

- 2013 *Notice of Preparation and Scoping Document for an Environmental Impact Report (EIR), E&B Oil Development Project.* Prepared by the City of Hermosa Community Development Department.

Jacobs, Steven

- 2005 The Pleistocene of the Palos Verdes Peninsula. Los Angeles Basin Geological Society Newsletter, January Meeting.

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Scott, Eric, and Kathleen Springer

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Society of Vertebrate Paleontology (SVP)

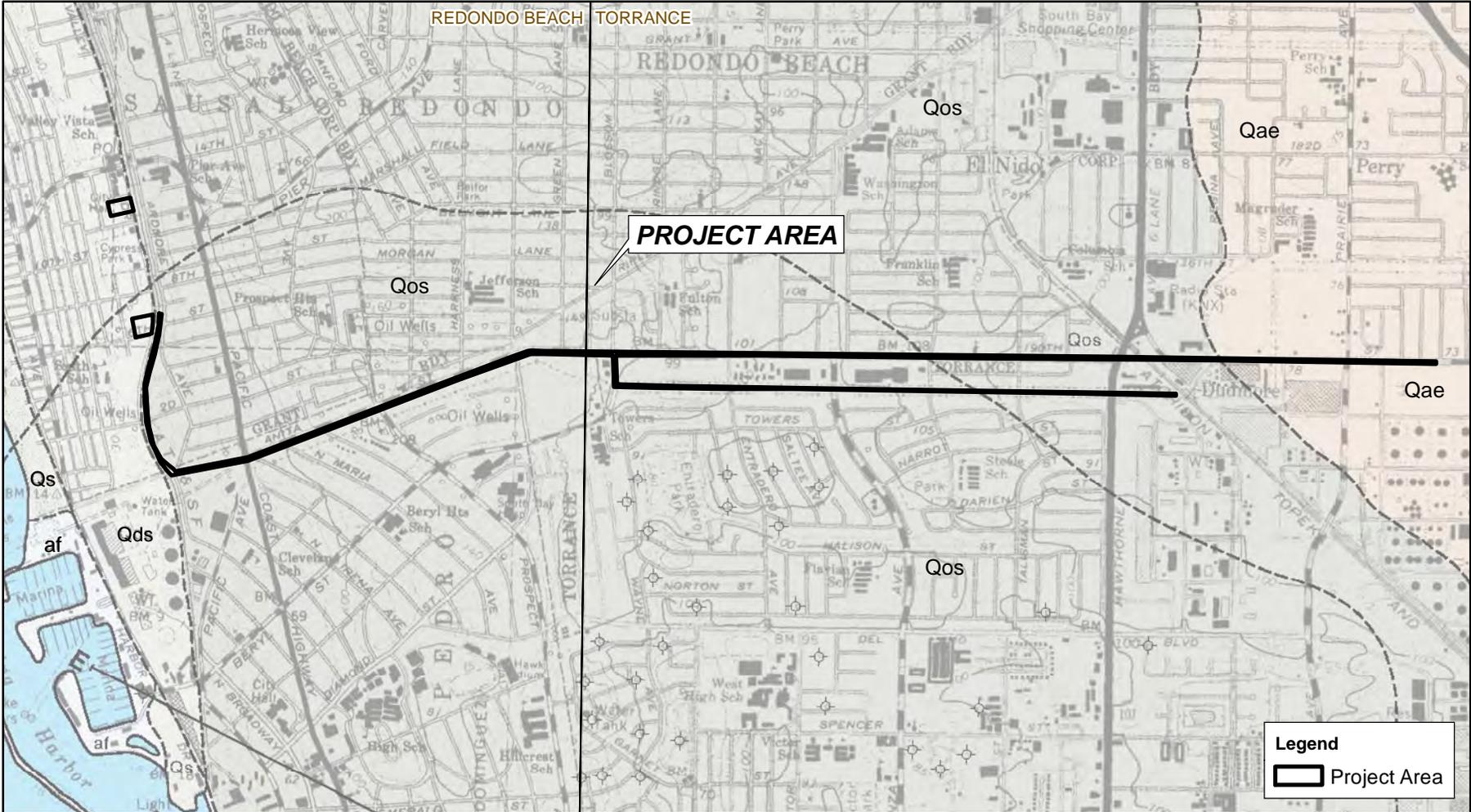
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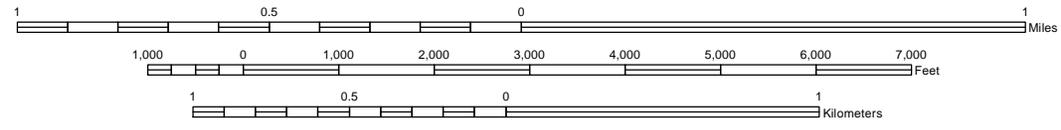
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SCALE 1:24,000



Sausal Redondo Landgrant
 Redondo Beach and Torrance, CA 7.5' USGS Quadrangles
 Geologic Map of the Palos Verdes Peninsula and Vicinity (Dibblee 1999)

Crr gpf k'c' Project location on geologic map.

APPENDIX C
NATIVE AMERICAN CONSULTATION



3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

9 October 2013

Mr. Dave Singleton
Native American Heritage Commission
915 Capitol Avenue, Room, 364
Sacramento, CA 95814

RE: E&B Oil Development at Hermosa Beach, California

Dear Mr. Singleton:

This letter serves as a request for a review of the Sacred Lands Inventory to determine if any known cultural resources are present within the vicinity of the E&B Oil Development Project situated on a 1.3-acre site located in the City of Hermosa Beach. The project location is depicted on the enclosed portions of the combined Redondo Beach (1963, 1981) Venice, Inglewood, and Torrance (all 1964, 1981), CA USGS 7.5' Quadrangle map within Section 36, Township 3. S, Range 15 W, and Section 31, Township 3. S Range 14 W (extrapolated) of Los Angeles County.

The Project will include ground disturbing activities associated with the relocation of a City maintenance yard and the development of an onshore drilling and production site that would utilize directional drilling. A records and literature search detailing previously recorded archaeological sites will also be conducted.

I would appreciate it if you could inform me of any knowledgeable Native American individuals who should be contacted regarding this Project.

Please do not hesitate to call Keith Warren at (323)-240-5913 if you have questions or require additional information. Results can be faxed to Æ at (951)766-0020 or emailed to kwarren@appliedearthworks.com. Thank you for your assistance with this request.

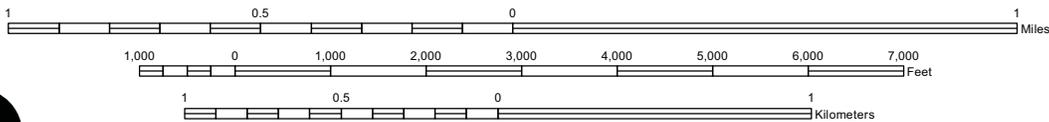
Sincerely

A handwritten signature in black ink, appearing to read "M Colleen Hamilton", with a long horizontal flourish extending to the right.

M.Colleen Hamilton, M.A., R.P.A
Historical Archaeology Program Manager



SCALE 1:24,000



Rancho Sausal Redondo Land Grant
 T. 3 S. / R. 15 W., Section 36 and T. 3 S. / R. 14 W., Section 31 (extrapolated)
 Redondo Beach (1963, 1981), Venice, Inglewood, and Torrance (all 1964, 1981), CA 7.5' USGS Quadrangles

Records Search location map for *Hermosa Beach Project*.

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95891
(916) 373-3715
Fax (916) 373-5471
Web Site www.nahc.ca.gov
E-mail De_nahc@pacbell.net



October 11, 2013

Ms. M. Colleen Hamilton, M.A., RPA, Historical Division Manager

Applied EarthWorks, Inc.

3550 E. Florida Avenue, Suite H
Hemet, CA 92544-4937

Sent by FAX to: 951-766-0020
No. of Pages: 4

RE: Request for Sacred Lands File Search and Native American Contacts list for the
"E & B Oil Development Project" located on 1.3-acre in the City of Hermosa
Beach; Los Angeles County, California

Dear Ms. Hamilton:

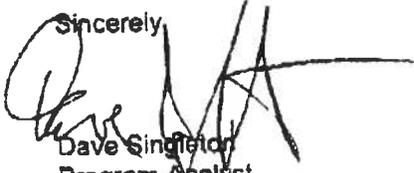
A record search of the NAHC Sacred Lands File failed to indicate the presence of Native American traditional cultural places (multiple) in the project site(s) submitted as defined by the USGS coordinates configuring the 'Area of Potential Effect' or APE. However, there are Native American sacred places(s), sites in close proximity to the APE. Also, please note that the absence of archaeological recorded items does not preclude their existence. Other data sources for Native American sacred places/sites should also be contacted. A Native American tribe or individual may be the only sources of information about traditional cultural places or sites.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

Attached is a list of Native American tribes, Native American individuals or organizations that may have knowledge of cultural resources in or near the project area (APE). As part of the consultation process the NAHC recommends that local government and project developers contact the tribal governments and individuals in order to determine the proposed action on any cultural places/sacred sites. If a response from those listed is not received in two weeks of notification, the NAHC requests that a follow-up telephone call be made to ensure the project information has been received.

If you have any questions or need additional information, please contact me at
(916) 373-3715.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dave Singleton', with a long horizontal stroke extending to the right.

Dave Singleton
Program Analyst

Attachments

**Native American Contacts
Los Angeles County
October 10, 2013**

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490
Bellflower , CA 90707
Gabrielino Tongva
gtongva@verizon.net
562-761-6417 - voice
562-761-6417- fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Private Address
Gabrielino Tongva
tattnlaw@gmail.com
310-570-6567

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
P.O. Box 180
Bonsall , CA 92003
Gabrielino
(619) 294-6660-work
(310) 428-5690 - cell
(760) 636-0854- FAX
bacuna1@gabrielinotribe.org

Gabrielino/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693
San Gabriel , CA 91778
Gabrielino Tongva
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
P.O. Box 180
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Gabrielino
palmssprings9@yahoo.com
626-676-1184- cell
(760) 636-0854 - FAX

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
P.O. Box 86908
Los Angeles , CA 90086
Gabrielino Tongva
sgoad@gabrielino-tongva.com
951-845-0443

Santa Ynez Tribal Elders Council
Freddie Romero, Cultural Preservation Consint
P.O. Box 365
Santa Ynez , CA 93460
Chumash
805-688-7997, Ext 37
freddyromero1959@yahoo.
com

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7650.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed E & B Oil Development Project; located in the City of Hermosa Beach; Los Angeles County, California for which a Sacred Lands file search and Native American Contacts list were requested.

**Native American Contacts
Los Angeles County
October 10, 2013**

Gabrielino-Tongva Tribe
Conrad Acuna,
P.O. Box 180 Gabrielino
Bonsall , CA 92003

760-636-0854 - FAX

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
909-262-9351

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7850.5 of the Health and Safety Code, Section 5097.84 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed E & B Oil Development Project; located in the City of Hermosa Beach; Los Angeles County, California for which a Sacred Lands file search and Native American Contacts list were requested.



3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

22 October 2013

Via Email

Gabrielino Tongva Indians of California Tribal Council
Robert F. Doramae
PO Box 490
Bellflower CA 90707
gtongva@verizon.net

RE: E&B Oil Development at Hermosa Beach, California.

Dear Mr. Doramae:

On behalf of Marine Research Specialists, Applied Earthworks, Inc. (Æ) is preparing a cultural resources investigation in support of proposed oil exploration and facilities relocation. The project location(s) are depicted on the enclosed portions of the combined Redondo Beach (1963, 1981) Venice, Inglewood, and Torrance (all 1964, 1981), CA USGS 7.5' Quadrangle maps of Los Angeles County. The proposed oil exploration facility is located at 555 6th Street, bounded on the east by Valley Drive and 6th Street to the south. The proposed new Public Works Facility is at 552 11th Place. In addition, the proposed project also includes the excavation of associated pipeline trenches which will be placed below existing city roads.

As part of our research, Æ is contacting interested parties, including Native American groups and individuals, to help identify any prehistoric sites or sacred sites or landscapes located in the vicinity of, or which might be affected by, the proposed Project. As a matter of procedure, Æ has already consulted the Native American Heritage Commission in Sacramento. The NAHC found no sacred sites or landscapes identified with the Project areas within their files.

An archaeological records search has been undertaken at the South Central Coastal Information Center. The records search at the Regional Information Center identified one archaeological site (19-001872) which is partially located within the record search area. This site was first recorded by Greenwood and Associates in 1990. The site was described as a light density shell scatter containing various chert flakes. An historical component consists of three 1880s commercial structures. Greenwood and Associates noted that the site was extensively damaged by later railroad and demolition/construction activities and that the prehistoric component of the site was likely redeposited midden. The northern extent of the site is approximately 0.3 miles south of the proposed E&B oil production facility.

If you have any information that would be relevant to our analysis of the proposed Project's potential impacts on cultural resources or traditional cultural property, please provide a written or verbal response by November 5, 2013 to Project Archaeologist Keith Warren at kwarren@appliedearthworks.com or (323) 240-5913. Please feel free to contact Mr. Warren if you have any questions or comments. Thank you for taking the time to review our request.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Colleen Hamilton".

for M. Colleen Hamilton, M.A., RPA
Historical Archaeology Program Manager

E & B OIL DEVELOPMENT PROPERTY HERMOSA BEACH, CALIFORNIA

**LIST OF NATIVE AMERICAN CONTACTS AND RECORD OF RESPONSES
NOVEMBER 5, 2013**

Name	Contact Date/Time	Responses
Ron Andrade, Director LA City/County Native American Indian Commission Los Angeles, CA	Email contact made 10/21/12, 3:05 pm Phone calls made 11/05/2013, 2:02 pm 04/13/2012, 8:45 am	Not accepting calls.
Gabrielino/Tongva Nation Sandonne Goad Los Angeles, CA	Email contact made 10/21/2013, 3:25 pm Phone call made 11/05/2013, 2:08 pm 04/13/2012, 9:00 am	Left a message describing the project and providing a contact name and number.
John Tommy Rosas, Tribal Admin. Tongva Ancestral Territorial Tribal Nation	Email response to 10/21/2013 Email	"I will confirm receipt of your documents and will review them asap " No further contact. Left a message describing the project and providing a contact name and number.
Anthony Morales, Chairperson Gabrieleno/Tongva San Gabriel Band of Mission Indians San Gabriel, CA	Email contact made 10/21/2013, 3:10 pm Phone call made 11/05/2013, 2:40 pm	Left a message describing the project and providing a contact name and number.

Name	Contact Date/Time	Responses
<p>Sam Dunlap, Chairperson Gabrielino Tongva Nation Los Angeles, CA</p>	<p>Email contact made 10/21/2013, 3:15 pm Phone call made 11/05/2013, 3:00 pm</p>	<p>Left a message describing the project and providing a contact name and number.</p> <p>11/6/2013 email response:</p> <p>"Thank you for providing the information regarding the proposed project. Since the proposed project is within the traditional tribal boundaries of the Gabrielino Tongva Nation my recommendations will be archaeological monitoring of pipeline excavation. I also request that a Native American monitor be present during subsurface construction activity. The Native American monitor will be provided from our tribal group and compensated for the monitoring services by the developer of the proposed project".</p>
<p>Robert F. Dorame, Tribal Chair/cultural Resources Gabrielino Tongva Indians of California Tribal Council Bellflower, CA</p>	<p>Email contact made 10/21/2013, 3:35 pm Phone response 10/29/2013, 2:12 pm</p>	<p>Mr. Dorame stated that he had conducted a survey of the proposed oil production site and had observed shell and rock that may be cultural in origin, Although these items were located beyond the proposed project boundaries, Mr. Dorame requested monitoring of all project related ground-disturbing activities by a qualified archaeologist and a Native American monitor</p>
<p>Bernie Acuna Gabrielino-Tongva Tribe Los Angeles, CA</p>	<p>Email contact made 10/21/2013, 3:40 pm Phone call made 11/05/2013, 2:50pm</p>	<p>Left a message describing the project and providing a contact name and number.</p>
<p>Linda Candelaria Gabrielino-Tongva Tribe Bonsall, CA</p>	<p>Email contact made 10/21/2013, 3:10 pm Phone call made 11/05/2013, 2:55pm</p>	<p>Left a message describing the project and providing a contact name and number.</p>
<p>Freddie Romero Santa Ynez Tribal Elders Council Santa Ynez,CA</p>	<p>Email contact made 10/21/2013, 3:20 pm</p> <p>Phone response 2.45 pm 10/22/2013</p>	<p>Mr. Romero stated that the project location was beyond his area of concern and deferred to local tribes and individuals.</p>

Name	Contact Date/Time	Responses
Conrad Acuna Gabrielino-Tongva Tribe Bonsall, CA	Letter mailed 10/21/2013	No response. No telephone number provided.

APPENDIX D
ARCHAEOLOGICAL SITE RECORDS

Other Listings
Review Code

Reviewer

Date

*Resource Name or #: Hermosa Beach City Yard

Page 1 of 14

P1. Other Identifier:

P2. Location: a. **County** Los Angeles

Not for Publication Unrestricted

b. **USGS 7.5' Quad** Redondo Beach, Calif.

Date 1996

c. **Address:** 555 6th Street

City Hermosa Beach **Zip** 90254

d. **Zone** 11S 371013 mE/ 3747371 mN

e. **Other Locational Data** (e.g., parcel #, legal description, directions to resource, additional UTMs, etc., when appropriate): City of Hermosa Beach Maintenance Yard. Bounded to the east by Valley Drive, the Veterans Parkway (Hermosa Valley Greenbelt/Trail), Ardmore Park and, farther to the east, by Ardmore Avenue and residential development; to the south by 6th Street.

P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): In the 1920s, the northeastern portion of City Yard contained a large depression. The pit may have been a natural hollow feature that was used as a dump site, a sand mining site, or may have been an excavated pit for landfill purposes. In the mid 1920s, the City's dump and refuse burner were located on the Project site. By 1947, the depression was filled in. The resulting former landfill is estimated at 29 to 45 feet deep and recent soil bores indicate that the dump contains glass, porcelain, and ceramic towards the bottom and soils containing miscellaneous metals, wires, glass, and other materials toward the top (i.e., closer to the ground surface). (NMG Geotechnical Inc. 2012:10).

The City Yards Building is a long rectangular frame industrial building measuring approximately 18 ft high with a flat-top roof; an adjacent open-air service bay is immediately east of the building. Currently used as a vehicle maintenance and road signs storage facility, the 45 ft by 90 ft building has undergone several additions and modifications to its original brick-and-cement-mortar footprint, which is primarily composed of a brick furnace room and automobile service bays on the ground level, and what appears to be a basement-level loading dock that has since been converted into a garage. The building in its current condition contains five general areas on the ground level and a basement-level garage, which originally may have been a loading area at the north end. The original plan of the building seems to have contained two or three rooms in which a furnace was operated. The building was later expanded with wood frames and corrugated sheet paneled rooms.

P3b. Resource Attributes (List all attributes and codes): AH 4; HP 14.

P4. Resources Present: Building Structure Object Site District Element of District
 Other:



P5. Photograph or Drawing: (Photograph required for buildings, structures, and objects.)
City Yards Building, October 30, 2013. View to southwest.

P6. Date Constructed/Age and Source:

Prehistoric Historic Both

P7. Owner and Address: City of Hermosa Beach,
City Hall, 1315 Valley Dr., Hermosa Beach, CA 90254.

P8. Recorded by (Name, affiliation, address):
Keith Warren and Michael Kay, Applied EarthWorks, Inc.,
3550 E. Florida Ave., Suite H, Hemet, CA 92544.

P9. Date Recorded: October 30, 2013.

P10. Type of Survey: Intensive Reconnaissance Other
Describe:

P11. Report Citation (Provide full citation or enter "none"): Warren, Keith, Michael Kay, and Jessica DeBusk
2013. *Phase I Cultural Resources Survey Report, E & B Oil Field Development Project, Hermosa Beach,*
California. Applied EarthWorks, Inc., Hemet, CA. Prepared for Marine Research Specialists, Ventura, CA.

Attachments: None Location Map Site 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:

- A1. Dimensions:** a. Length: (x) x b. Width: (x) Unknown
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):
Historic records.
Reliability of Determination: High Medium Low Explain:
Limitations (Check any that apply): Restricted access Paved/built over Disturbances
 Site limits incompletely defined Other (Explain):
- A2. Depth:** At least 29 feet, possibly 46 feet. None Unknown Method of Determination: Soil 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 sketch map): Archival research has demonstrated the proposed Oil Production site has been utilized as a City dump and refuse processing site from as early as 1927 through the 1940s. A 1924 topographic map depicts what appears to be a large pit or depression within the site. The horizontal dimensions of the dump are unknown and the depth of the deposits, based on available soil boring information appears to be at least 29 feet and possibly as deep as 45 feet (NMG Geotechnical 2012:10).
- A5. Cultural Constituents** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with feature): The deposit contains glass, ceramics, brick metal and concrete near the base and it is assumed to be the result of municipal refuse collection during the early 1900s. Upper sediments contain miscellaneous metal, wire, glass, and other materials of an industrial/commercial origin. Little information exists about refuse collection in the City of Hermosa Beach or the on-site process of incineration, sorting of waste, and disposal. It is known that a brick furnace was built and operated on the site.
- 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): Santa Monica Bay is 0.4 miles to the west.
- A9. Elevation:**
- A10. Environmental Setting** (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc., as appropriate): The Proposed Project area is located along the coastal portion of the Santa Monica Bay, within the southwestern Los Angeles Basin, approximately 0.4 miles inland from the Pacific Ocean. The site is underlain by Holocene-age dune sands west of the adjacent older alluvial deposits in the Los Angeles Basin to the east. The on-site deposits generally consist of dune and drift sands that were deposited as ancient Aeolian (windblown) deposits (NMG Geotechnical 2012:9). These deposits have become covered by buildings, paved roads, and asphalt and concrete surfaces.
- A11. Historical Information** (Note sources and provide full citations in Field A15 below): Archival research has shown that this site was first developed in the early 1920s. The Los Angeles County Assessors Map Books from 1900–1960 indicate City ownership or leasing of the subject properties began in 1920 (Assessors Map Book 188 p50), and continuing until the present day. Cypress Avenue lots, which bound the subject property to the west, were developed as early as 1925 as residential properties.

The 1924 topographic map of the site depicts what appears to be a large pit or depression west of the Santa Fe Railroad and within the subject property. By 1927, the Sanborn Map depicts the “City Dump and Refuse Burner” with a structure at the south east corner of 6th Street and East Railroad Avenue. One part of the structure was labeled “Waste Storage,” in 1925. Approximately 100 feet north of this structure is the “City Dumping Grounds.”

Bard Street is designated as “not open,” but runs north through the site. A 1934 topographic map depicts the pit or depression representing the dump, one structure, and one circular feature (probably Stinnett Oil Well No. 1 which went into operation in August 1930). A 1947 aerial shows the structure in the same configuration as the 1946 Sanborn Map. At this date the “City Garage & W.Ho.” is shown and former refuse burner building has been altered.

A small office is depicted at 541 Sixth Street, in the middle of Bard Street which remains unopened. West of the office, are “2 steel oil t[an]ks” and to the north an “oil well” (presumably Stinnett Oil Well No. 1). The City dumping grounds are depicted in the same location as shown on the 1927 Sanborn map. The 1960 Sanborn map shows the office and dump area is labeled “City Service Yard” suggesting that the dump is closed.

- A12. Age:** Prehistoric Pre-Colonial (1500–1769) Spanish/Mexican (1769–1848) Early American (1848–1880) Turn of century (1880–1914) Early 20th century (1914–1945)
 Post WWII (1945+) Undetermined Factual or estimated dates of occupation (explain):

- A13. Interpretations** (Discuss scientific, interpretive, ethnic, and other values of site, if known): The former city dump appears to contain historical period artifact and hence is potentially significant archaeologically. It will be removed as a result of a development project. Similarly, the brick and mortar refuse burner or furnace contained within the City Maintenance Building may yield information about site operations and refuse disposal practices in Hermosa Beach during the early 1900s. Little to no information was found on this facility during the record search and the limited archival research undertaken. Therefore, the physical remains of the building and its associated archaeological deposits may represent the only opportunity to further investigation this facility and its relationship to City operations during the early 1900s.

- A14. Remarks:** The site has the potential to yield information important in history; specifically, consumer data relative to the early development of Hermosa Beach. Additional archival research at least is warranted. Further, the study of local newspapers was beyond the current level of effort. If historical descriptions or operational papers are found for the facility, they may be more revealing than actual documentation of the physical remains on the site. At that time, the facility may be deemed not archaeologically significant and no further work would be necessary.

- A15. References** (Give full citations including the names and addresses of persons interviewed, if possible):

Converse Consultants.

2005 Phase I Environmental Site Assessment Report. 552 11th Place, Hermosa Beach, California.
Prepared for the City of Hermosa Beach, Community Development Department, Hermosa Beach, California.

Finken, Richard D.

2013 A History of Oil Production in Hermosa Beach. <website accessed November 8, 2013,
www.hermosabeach.patch.com.

Kaasen Directory Company

1915–1931 Resident and Business Directory. Redondo, Hermosa and Manhattan Beaches, Los Angeles County, California. On file <www.Ancestry.com> Website Accessed October 30, 2013.

NMG Technical, Inc.

2012 E&B Oil Development Project. Geotechnical and Design Report, Hermosa Beach City Maintenance Yard, 555 6th Street, Hermosa Beach, California. Prepared for E&B Natural Resources Management Corporation. (E&B Oil Development Project Planning Application, Appendix D).

- A16. Photographs** (List subjects, direction of view, and accession numbers or attach a Photograph Record):
See Photograph Record attached.

- A17. Form Prepared by:** K. Warren and M. Kay **Date:** October 2013
Affiliation and Address: Applied EarthWorks, Inc., 3550 E. Florida Ave., Suite H, Hemet, CA 92544.

*Resource Name or #: (Assigned by recorder) Hermosa Beach City Yard

Page 5 of 14

- B1. Historic Name:** Hermosa Beach Public Works Maintenance Yard
B2. Common Name: City Yards
B3. Original Use: Refuse incinerator **B4. Present Use:** Municipal automobile maintenance and general storage.
B5. Architectural Style: Industrial
B6. Construction History (Construction date, alterations, and date of alterations): The brick and mortar refuse burner (furnace) was built between 1924 and 1927. It remained in operation until ca. 1947 when the building was modified. Remnants of the brick and mortar furnace remain inside the Public Works maintenance building, although portions of it seem to have been removed and/or altered.

B7. Moved? No Yes Unknown **Date:** **Original Location:**

B8. Related Features: City refuse dump.

B9a. Architect: N/A

b. Builder: Unknown

B10. Significance: Theme Early industrial development **Area** Hermosa Beach, California
Period of Significance 1900s–1920s **Property Type** Incinerator, garage **Applicable Criteria** N/A
 (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity): The City Yards Building reflects a period of Hermosa Beach's early industrial development, and originally served as a refuse incinerator. Items were originally unloaded in a basement-level dock and transported via a pulley conveyance system directly to a ground-floor furnace for combustion. The brick and mortar furnace room remains unaltered, but the integrity of other portions of the building, including the pulley system, seems to have been compromised. Additional rooms have been added constructed of wood frame and corrugated metal and fiberglass cladding as walls and roofs. In its current condition, the building displays no particular architectural style and does not retain integrity.

B11. Additional Resource Attributes (List attributes and codes):

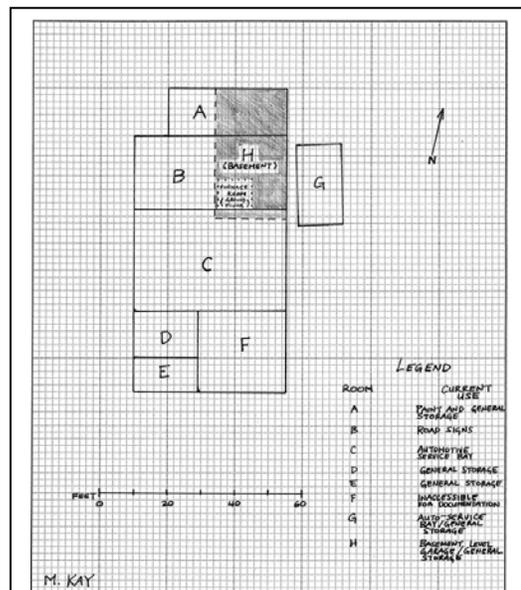
B12. References: Sanborn Fire Insurance Maps, 1927, 1946.

B13. Remarks: The early sections of the building retain no integrity.

B14. Evaluator: Michael Kay, M.A, RPA, Applied EarthWorks, Inc. 133 N. San Gabriel Blvd, Suite 201, Pasadena, CA 91107

Date of Evaluation: October 30, 2013

(This space reserved for official comment)



Sketch map of City Yards Building



The City Yard building, view to the northwest.



Exterior of Area B, view to the east.



Ceiling and joists of Area B, view to the east.



One of two windows in the east wall of Area B, view to the northwest.



Arched access filled in with modern wall and doorway, view to the south.



Pair of rails in Area B, view to the east.



Brickwork detail near the foot of the furnace room doorway, interior.



Furnace, currently used as storage.



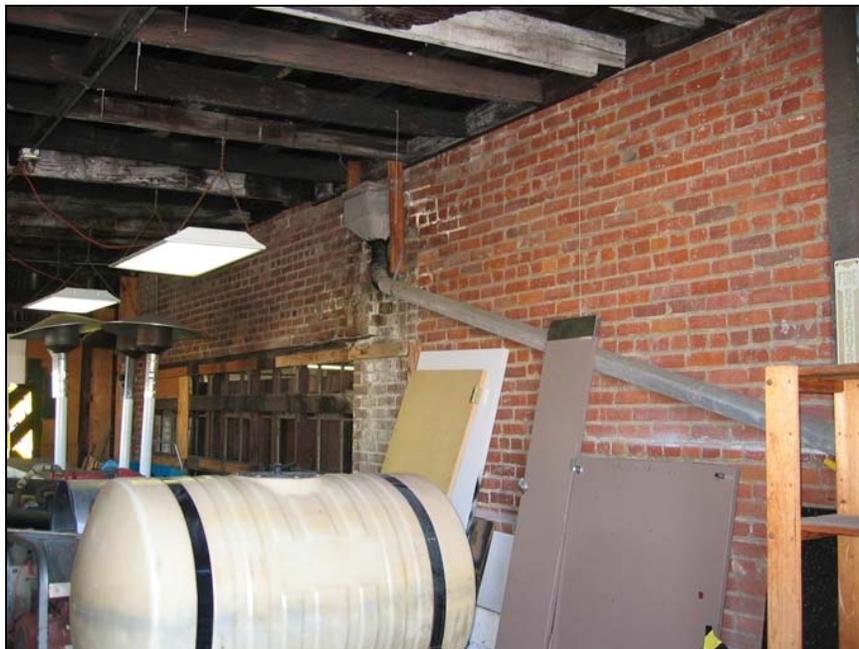
Area C, view to the east.



The ceiling and supporting posts, view to the southeast.



Area A, view to the east.



South wall of Area A, shared with Area B to the south.



Areas E and F, view to the east.



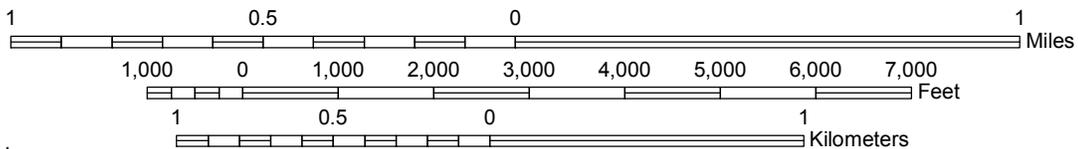
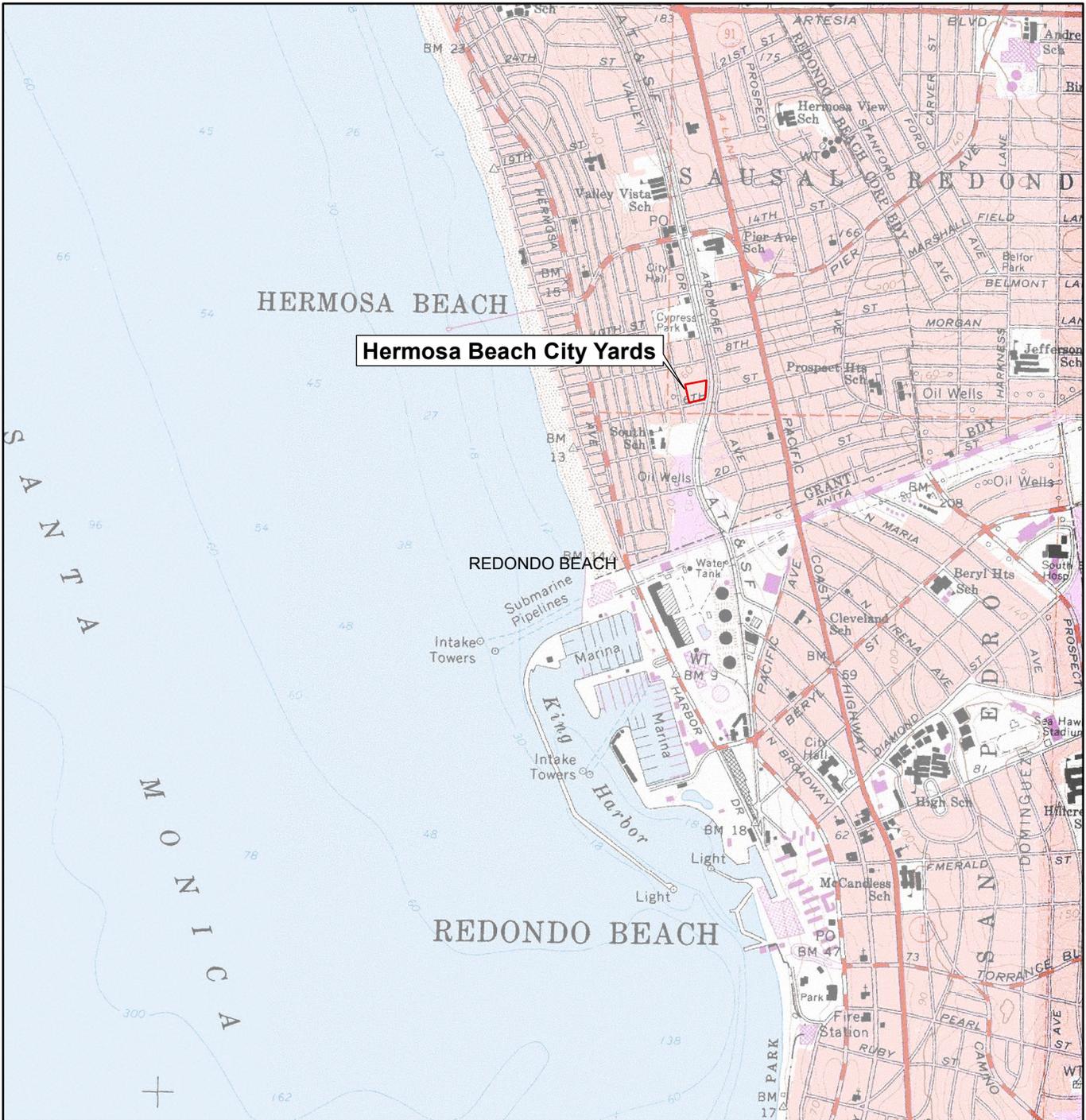
From Area E, view to Area F.



Area G, former automobile service bay, currently used as storage area, view to the northwest.



Driveway and garage door of Area H, view to the southwest.



TRUE NORTH