

5.7 CULTURAL RESOURCES

Cultural resources include archaeological and historical objects, sites and districts, historic buildings and structures, cultural landscapes, and sites and resources of concern to local Native Americans and other ethnic groups.

The purpose of this cultural resources study is to inventory and tentatively assess the significance of cultural resources that the proposed project could potentially affect. Included in this report are archaeological site descriptions and records of correspondence with local Native Americans. These records, including site locational data, are included in the confidential Technical Report (Appendix J) but should only be made available, on a need-to-know basis, to qualified cultural resource specialists and project managers. All other information contained in Appendix J is also repeated herein in Section 5.7.

As part of the field inventory, archaeological field investigations and historic evaluations were undertaken to assess the presence/absence and/or the extent of specific sites and features. All cultural resources work for this project was carried out under the direct supervision of an archaeologist who meets the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (National Park Service, 1983 [36 CFR Part 61]), and is consistent with the procedures for compliance with Section 106 of the National Historic Preservation Act (NHPA), set forth at 36 CFR 800. Appendix K contains the El Segundo Redevelopment Project Historic Resources (Built Environment).

Detailed below are descriptions of project components; baseline conditions for prehistory, history and ethnography; results of coordination with the Native American community; records searches; field surveys and assessments of potential impacts (direct and indirect) on cultural resources on a component-by-component basis. The results of the field survey indicate that there are no adverse project-related effects anticipated on significant cultural resources from the proposed project. Also detailed below are appropriate mitigation measures to ensure site avoidance and/or in the event of discovery.

Cultural resources work was conducted in compliance with CEC "Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification" (CEC, 1992) and "Rules of Practice and Procedure and Power Plant Site Certification Regulations (CEC, February 1997). Cultural resources fieldwork protocols were prepared in consultation with the CEC.

5.7.1 Affected Environment

5.7.1.1 Study Area

Study Area. The ESPR plant site is located in El Segundo, California, a city on the coast of the Santa Monica Bay, in Los Angeles County. Several proposed pipeline routes and temporary staging and parking areas are also located within El Segundo, although some are located in the communities of Manhattan Beach and Marina Del Rey, as well as the Los Angeles International Airport area. The plant site and linear project areas were subjected to a records search with a one-half-mile-wide study area (i.e. one-half-mile each side of the centerline for linear components and a one-half-mile-wide buffer around the outer boundaries of the plant site). Proposed temporary staging and parking areas were searched with a one-quarter-mile-wide study area (i.e. one quarter mile-wide buffer around the outer boundaries of the temporary staging and/or parking areas). The one-quarter-mile wide search radius was employed in these areas because no ground-breaking activities are planned for these temporary staging and parking areas, thus reducing the possibility of adverse effects to cultural resources located in adjacent areas. Table 5.7-1 outlines project components and major study areas addressed in this section.

Area of Potential Effects. The project Area of Potential Effects (APE) for cultural resources includes the footprint of the power plant site, temporary staging areas and temporary parking areas. The block areas of these component footprints are depicted on Figure 5.7-2 and described in Section 5.7.1.2 including the area of each component's footprint. The water line linear facilities will be constructed in existing streets; the sanitary sewer line and the aqueous ammonia line will be constructed in previously disturbed areas. For archaeological and built environment resources the APE for these linear components is assumed to be confined to a maximum 50-foot-wide construction corridor (the water lines will be built within existing paved streets and will not extend beyond the paved areas). Although construction of these linear facilities is not anticipated to result in adverse effects on built environment resources outside the construction corridor, a qualified architectural historian was retained to make cursory assessments of adjacent structures. Historical assessment of built environment resources is detailed in Appendix K. The project components and associated APE are listed below.

<u>Project Component</u>	<u>Area of Potential Effects (APE)</u>
Power Plant Site	32.8 acres
Aqueous Ammonia Supply Line	50 feet wide x 0.7 mile x 12 feet deep
Water Pipeline Route	50 feet wide x 1.5 miles x 15 feet deep
Sanitary Discharge Line	50 feet wide x 150 feet x 12 feet deep

Kramer Staging Area	11.5 acres
Federal Express Staging/Parking Area	46 acres
LAX Pershing Staging/Parking Area	Approximately 5 acres
Marina Del Rey Boat Launch Pkg. Area	442 spaces (paved)
Dockweiler State Beach Pkg. Area	900 spaces (paved)
Hyperion Parking Area	461 spaces (paved)
Grand Avenue Parking Area	115 spaces (paved)
Chevron Marine Terminal	

TABLE 5.7-1**PROJECT COMPONENTS/AREAS**

Component	Description
Project Site	A 33-acre power plant facility located in the City of El Segundo
Linear Components	
Aqueous Ammonia Pipeline	
Water Pipeline Route	A pipeline route entirely within City streets and containing two pipelines:
Sanitary Discharge Line	A short pipeline running south into City of Manhattan Beach
Staging Areas (Construction)	
Kramer	An 11.5-acre paved lot at one end of a demolished foundry site
Federal Express	A 46.5-acre, highly disturbed former industrial/agricultural use site. Also usable for parking
LAX Pershing	A paved site adjacent to runway and also available for parking
Chevron Marine Terminal	A level site
Parking Areas (Construction)	
Marina Del Rey Boat Launch	442 paved parking spaces.
Dockweiler State Beach	Three paved parking lots, each 300 spaces
Hyperion	461 paved parking spaces
Grand Avenue	115 paved parking spaces

Previously conducted studies that pertain to the area within or adjacent to the project APE are outlined in Table 5.2-2. Previously recorded archaeological sites within and outside the project APE are outlined in tables 5.7-3 and 5.7-4, respectively.

Pedestrian archaeological surveys were conducted on project components that have exposures of native surfaces. Archaeological survey coverage is detailed in Table 5.7.4, as well as in Appendix J.

5.7.1.2 Site Description

The ESPR Project involves the redevelopment of an existing steam generating plant, as well as the construction of several ancillary pipelines, and the temporary use of several off-site areas for worker parking and/or equipment staging. The project components are described in detail in AFC Section 3.0. The proposed ESPR Project consists of the following major components:

Power Plant Site

The ESPR power plant site is located in the City of El Segundo, along the shoreline and immediately adjacent to the well-known El Portal surfing spot. The ESPR plant site, approximately 32.8 acres in size, is bounded by 45th Street to the south, Dockweiler State Beach to the west, the Chevron Marine Terminal to the north, and Vista Del Mar Avenue to the east. The existing electric generating station is currently comprised of four gas-fired conventional, electric power generating units. The proposed ESPR Project will include removal of the existing power blocks of Units 1 and 2, and construction of a combined cycle plant within the footprint of the removed units.

Pipeline Routes

- Route 1 – Water Supply Lines

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Two new water supply pipelines will be constructed. The two pipelines will use the same route. The proposed 12-inch diameter potable water pipeline will link potable water from the City of El Segundo to the El Segundo power plant site. The proposed potable water supply line will connect with an existing 18 inch City water line on El Segundo Boulevard, adjacent to the Chevron Refinery. The proposed 8-inch diameter reclaimed water supply pipeline will link reclaimed water from the West Basin

TABLE 5.7-2

PREVIOUS CULTURAL RESOURCE STUDIES WITHIN THE PROJECT APE OR ADJACENT AREA

Reference/Survey Number	Reference Summary
Leonard (1975) [LA-0125]	This letter report documents an archaeological field survey conducted for the Hyperion Treatment Plant. No sites were documented within the project study area. (Note: This study is identical to LA-4051, see below.)
Woodward (1987) [LA-1625]	This report documents an archaeological field survey of all 44 acres of Manhattan State Beach. Almost all structures within the State Beach were photodocumented, including the previously recorded Manhattan Beach Pier. No other cultural resources or archaeological sites were documented during this project.
Wlodarski (1986) [LA-1543]	A cultural resources inventory for a proposed highway widening project along Sepulveda Boulevard. No cultural resources were documented during this project.
Peak and Associates (1992) [LA-2950]	A cultural resource study for the Pacific Pipeline Project, which involved the survey of a linear route extending from Santa Barbara to the Chevron Refinery in El Segundo. Numerous cultural resources were documented during this survey, however none of these were located within or adjacent to the ESPR Project components. The survey corridor ran directly adjacent to the proposed Kramer Staging Area and extended into the Chevron refinery, ending east of the proposed alignment for the proposed Aqueous Ammonia Supply Line.
Wlodarski (1987) [LA-0309]	An archaeological reconnaissance report for a sewer outfall replacement project. No cultural resources were documented during this project.
Briuer (1976) [LA-3494]	An archaeological impact statement for the Hyperion Treatment Plant Secondary Treatment Facility. No archaeological resources were detected within the survey area.
Frank, Myra L. & Associates (1987) [LA-3673]	An historic property survey report conducted for an outfall relief sewer. The survey did not detect any archaeological resources, however, several historic structures were recommended as eligible for listing in the National Register of Historic Places. None of these structures are located within or adjacent to the ESPR Project components.
D'Altroy (1975) [LA-4051]	An evaluation of potential impacts on archaeological resources for the Hyperion Treatment Plant Interim Sludge Processing and Disposal System. No sites were documented within the project study area. (Note: This study is identical to LA-125, see above.)
Leonard (1974) [LA-96]	An archaeological study of Los Angeles International Airport (LAX). This study included field survey of LAX and adjacent areas (although no survey coverage map is available), involving the "ground-truthing" of previously recorded sites and the documentation of one prehistoric site. This site (CA-LAn-691) consists of a shell scatter and soil discoloration, located at the base of a graded hill, at the west end of LAX runway 25L-7R, just north of Imperial Highway. Leonard recommended limited testing of the site and complete burial, to insure preservation. This survey presumably covered the proposed Pershing Staging/Parking Area.
Neunenschwander (1989) [LA-1975]	A cultural resource survey and clearance report for a proposed AT&T fiber optic line. Portions of Redwood Avenue, Mindanao Way, and Lincoln Boulevard within one-quarter-mile of the proposed Marina Del Rey Boat Launch Parking Area were surveyed. The survey resulted in the discovery and recordation of one prehistoric site, and the identification of a previously recorded site; no update was made to the site record.

TABLE 5.7-2
(CONTINUED)

Reference/Survey Number	Reference Summary
Dillon (1988) [LA-253]	A report on preliminary archaeological investigations at "The Admiralty Site" (CA-LAN-47) in Marina Del Rey. These investigations included reconnaissance, surface collection, and test excavation. CA-LAN-47 was concluded to have been a large village site occupied during the Late Prehistoric Period, probably by the Coastal Gabrieliño. Test excavation in a disturbed area adjacent to Admiralty Way yielded fragmentary human remains. Dillon recommended a range of mitigation measures, tailored to the different areas of the site. The site itself spans several different parcels with different ownership. Varying degrees of disturbance are also present on these different parcels. Dillon recommended further data recovery, as well as preservation and monitoring.
Altschul (1990) [LA-2558]	This letter report is a technical appendix to the Channel Gateway EIR, presenting results of another archaeological testing program conducted at CA-LAN-47. This study, conducted by Statistical Research, employed a program of backhoe trenching to determine the extent of the cultural deposit, with similar results to that of LA-253. In addition to CA-LAN-47, a historic site was discovered and recorded immediately to the north of the prehistoric deposit. This site (CA-LAN-1596/H) featured a concrete footing, 2 trash pits, and a wood-lined well shaft with historic debris. This site was determined to be associated with an historic Japanese farm labor camp. Altschul recommended complete analysis of the cultural material recovered during the testing program, deed of all cultural material to the Gabrieliño Tribe, and archaeological and Native American monitoring of construction.
Gervais (1978) [LA-2669]	A draft background and environmental impact report for the Venice District, completed by the Department of City Planning. This document provides an excellent historical background section on the development of the Venice area, however, it does not address cultural resources issues in any meaningful way. This gross omission is detailed in two letter responses to the draft, which have been attached by the SCCIC. The historical background section does not mention prehistoric occupation of the area or Native Americans at all. No records search was conducted to determine the extent of previous archaeological work and the location of known cultural resources within or adjacent to the project area. No field inventory was conducted. It is not known whether the recommendations to remedy the situation, made by Louis Tartaglia of the Northridge Archaeological Research Center and by Nancy Walter, were ever acted upon.
Altschul, et al. (1992) [LA-2673]	This is an extensive document detailing the history of Statistical Research's work at CA-LAN-47 and CA-LAN-1596/H, including testing, data recovery, and laboratory analysis of the cultural material. Although the City of Los Angeles had declared the Admiralty site an historic landmark, this designation was limited to a small portion of the site within the city limits. Altschul, et al. recommended that the landmark include the larger portion of the site, which lies on property owned by the County of Los Angeles. The document also recommends that much more research, and excavation be carried out in the Ballona Creek area, to further pursue research questions about prehistoric, protohistoric and historic use of the area.
Levine (1969) [LA-3495]	A non-technical review of Indian burial findings at Marina Del Rey, written by an employee of the County of Los Angeles Department of Small Craft Harbors. This article in the Marina Del Rey Reporter discusses three different discoveries of Native American human remains. The first instance discussed occurred in 1961, when trenching for a sewer line exposed human remains. Several skeletons and associated grave goods were excavated by Kieth Johnson of the University of California, Los Angeles. In 1965, several burials were discovered during construction of the basement for Surety National Bank. Two burials were removed scientifically by the U.C.L.A Archaeological Survey; several other burials were uncovered by pot-hunters, amateur archaeologists and workmen. In late 1968 and early 1969, two individual skeletons were uncovered during construction of the Warehouse Restaurant. These were also scientifically excavated by the Archaeological Survey from U.C..L.A
Bucknam (1974) [LA-3583]	A gazetteer and compilation of archaeological site information from the Los Angeles Basin and vicinity. This compilation of data was derived primarily from an extensive literature review conducted at the repository located at that time at U.C.L.A.. The document provides a quick-reference fact-sheet for each site included. It appears that only prehistoric and/or Native American sites were included. No pedestrian or field research was conducted. A fact sheet for CA-LAN-47, also known as the Admiralty site, is included in the document.

TABLE 5.7-2
(CONTINUED)

Reference/Survey Number	Reference Summary
Anonymous (n.d.) [LA-3898]	A proposal for archaeological investigations in the area of Hammock Street and Port Drive in Marina Del Rey. This brief document refers to cultural materials that have been uncovered in the area between these two streets. However, no specific sites are mentioned. This is a vague document, and it does not appear that any formal records searches or field inventories were conducted.
Raschke & Bissell (1995)	A paleontological and archaeological resources reconnaissance of the LAX property. This study included a pedestrian survey of the entire LAX property, with the exception of a few restricted areas. Several prehistoric and historic sites were recorded and several previously recorded resources were updated. The survey covered the two proposed LAX Pershing Staging/Parking Area.
[no number] Peak (1990) [LA-2445]	A shovel testing program conducted at two archaeological sites (CA-LAn-1698 and CA-LAn-1018) for an AT&T fiber optic line. Two shovel test pits (STPs) were excavated at CA-LAn-1698, and four STPs were excavated at CA-LAn-1018. Investigations at CA-LAn-1698 revealed shell fragments from a variety of marine invertebrate species and assorted historic and modern debris. It was concluded that the site was disturbed. The testing program at CA-LAn-1018 revealed similar results, with the notable exception of a possible pestle fragment. It was concluded that this deposit may have represented a secondary deposit of cultural material washed down from the primary deposit, located on the terrace above. Monitoring of the fiber optic line construction was recommended.
Woodward-Clyde Consultants (1993) [no number]	An environmental impact report for the Chevron Refinery Reformulated Gas Project. The report addressed cultural resources briefly, stating that the refinery was highly disturbed and that no impacts to cultural resources were anticipated.

TABLE 5.7-3**PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES WITHIN PROJECT APE**

Survey No.	Site No.	USGS 7.5' Quad/ Project Segment	Site Type	Primary Reference	Type of Investigation	Status
NO PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES EXIST WITHIN THE PROJECT APE						

TABLE 5.7-4**PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES
WITHIN ADJACENT STUDY AREAS (OUTSIDE PROJECT APE)**

Survey No.	Site No.	USGS 7.5' Quad/ Project Segment	Site Type	Primary Reference	Type of Investigation	Status
LA-253, 3495, 2673, 3583, 2669, 2558	CA-LAn-47(P- 19-000047)	Venice/Marina Del Rey Boat Launch Parking Area	prehistoric	Dillon, Brian (1988); Johnson, Kieth (1961); Burnham and Romoli (1965); Altschul, Jeffrey (1990); Altschul, et al. (1992)	surveys, excavations	5- Not Evaluated
LA-2445	CA-LAn-1698 (P-19-001698)	Venice/Marina Del Rey Boat Launch Parking Area	prehistoric	Neuenschwander 1989 (site record only); Peak 1990	shovel testing program	5- Not Evaluated
Raschke and Bissell 1995	CA-LAn-2386/H (P-19-002386)	Venice/LAX Pershing Staging/Parking Area	historic	Raschke, Rod and Ron Bissell (1995))	survey	5- Not Evaluated
Raschke and Bissell 1995	CA-LAn-2345 (P-19-002345)	Venice/LAX Pershing Staging/Parking Area	prehistoric	Raschke, Rod and Ron Bissell (1995))	survey	5- Not Evaluated

Municipal Water District (WBMWD) to the El Segundo power plant site. The proposed reclaimed water supply line will connect with an existing WBMWD reclaimed water line on El Segundo Boulevard, adjacent to the Chevron Refinery. Both pipelines will be constructed within the same trench, which will run within existing city streets to the power plant site, via Grand Avenue and Vista Del Mar. One area of the pipeline is described as a zone rather than as a linear route. This is to allow Final Route Selection to include mature input by the City of El Segundo. The full range of alternatives extends from Eucalyptus Street on the east to Loma Vista Street on the west. Under any alternative, the water lines will be installed in Grand Avenue west of Loma Vista and on Vista Del Mar from its juncture with Grand Avenue to the plant site. The entire route of the water lines lies within paved city street and/or an existing, disturbed utility corridor.

- **Route 2 – Sanitary Discharge Line**
The proposed sanitary discharge line will exit the ESPR Power Plant site near the southwestern corner of the plant, extending approximately 150 feet to the south.
- **Route 3 – Aqueous Ammonia Supply Line**
The proposed aqueous ammonia supply line will exit the ESPR Power Plant site near the northeastern portion of the plant. The aqueous ammonia supply line will be bundled with existing utilities, crossing Vista Del Mar, and entering the west side of the Chevron Refinery. Once inside the refinery boundary, the aqueous ammonia supply line continues to follow an existing, disturbed utility corridor to the east. The existing utility corridor follows a paved driveway and then a railroad track, into a switchyard, where it ends.

Areas

- **Area 1 – Kramer Staging Area**
The proposed 11.5 acre Kramer Staging Area is located in southern El Segundo and may be utilized for staging and/or parking. It is delimited by Rosecrans Boulevard on the south, El Segundo Boulevard on the north, Aviation Boulevard on the east and Sepulveda Boulevard on the west. The Kramer Staging Area surface is primarily paved and has been completely disturbed from prior industrial activity and infrastructure development. The majority of the property has been completely sealed with an asphalt covering.
- **Area 2 – Federal Express Staging/Parking Area**
This 46-acre site is located on the northeast corner of Mariposa Avenue and Nash Street in the municipality of El Segundo. The parcel surface is highly disturbed from prior agricultural and/or industrial activity.

- **Area 3 – LAX Pershing Staging/Parking Area**
This approximately five-acre site is located on the east side of Pershing Avenue, roughly 0.5 miles north of Imperial Highway, within the western runway path of the Los Angeles International Airport. A perimeter fence encompasses the parcel and the site surface is paved.

- **Area 4 – Marina Del Rey Boat Launch Parking Area**
The proposed Marina Del Rey Boat Launch Parking Area is located west of Admiralty Way, north of Fiji Avenue, at the northeast end of Basin G, Marina Del Rey. The site is under consideration only for automobile parking use for the plant construction crew. The total area of concern encompasses 442 parking spaces. The site surface is entirely paved.

- **Area 5 – Dockweiler State Beach Parking Area**
The proposed Dockweiler State Beach Parking Area is an existing parking lot for Dockweiler State Beach, located between Vista Del Mar Avenue and the beach. The site is under consideration only for automobile parking use for the plant construction crew. The total area of concern encompasses three parking lots, each containing 300 spaces, for a total of 900 parking spaces. The site surface is entirely paved.

- **Area 6 – Hyperion Parking Area**
The proposed Hyperion Parking Area is an existing parking lot located between Vista Del Mar Avenue and the beach, south of the proposed Dockweiler State Beach Parking Area, and north of the proposed Grand Avenue Parking Area. The site is under consideration only for automobile parking use for the plant construction crew. The total area of concern encompasses 461 parking spaces. The site surface is entirely paved.

- **Area 7 – Grand Avenue Parking Area**
The proposed Grand Avenue Parking Area is an existing Hyperion Corporation parking lot located between Vista Del Mar Avenue and the beach, south of the proposed Hyperion Parking Area, and north of the proposed Chevron Marine Terminal Staging Area. The site is under consideration only for automobile parking use for the plant construction crew. The total area of concern encompasses 115 parking spaces. The site surface is entirely paved.

- **Area 8 – Chevron Marine Terminal Staging Area**
The proposed Chevron Marine Terminal Staging area is located approximately one-quarter-mile north of the ESPR plant site and is bordered by Vista Del Mar Avenue on the east, and the Santa Monica Bay bike path on the west. Portions of the site has been previously leveled by heavy equipment. A spoils pile containing an estimated 10,000

cubic yards of material that was excavated from a nearby sump feature is located near the center of the proposed staging area.

5.7.1.3 Natural History

Surficial sedimentary units of predominantly Pleistocene and Holocene age underlie the entire project area. These sediments include depositions that range from continental, alluvial fan-derived sediments to subaerial floodplain to marine terrace and near-shore deposits. Lithologies include sand, gravel, silt and clay. The successive series of Pleistocene marine terraces that have undergone geomorphic development have been subsequently dissected by the major west flowing river drainages of the Los Angeles Basin.

The Cenozoic rock formations in the area range in facies type from conglomerates to sandstones to unconsolidated siltstone and clays, all of which are either fossiliferous or potentially fossiliferous. Gradual, long-term erosion has removed parts of the Tertiary and Quaternary rock formations so that these rocks and their contained fossils are now at or near the surface throughout most of the project area. These formations or parts of the formations now exist at or near the surface as rock outcrops with varying width across the project area terrain, but are obscured in most areas by industrial development and surficial sediments. The majority of the plant site area is overlain by imported fill or is comprised of unconsolidated sediments of Holocene age.

Many of the temporary staging and parking components lie within the ancient Los Angeles River floodplain and river basin. The Ballona Creek serves as a secondary drainage flowing to the southwest along the base of the Del Rey bluffs. Rainfall averages about twelve inches per annum in the Los Angeles Basin. The bluffs probably supported grasslands in prehistoric times, and in the 1800s, the area around Ballona Lagoon was essentially swamp, thickets, and a rather rich riparian environment.

5.7.1.4 Soils and Geology

Please refer to Section 5.3 for detailed descriptions of regional soil conditions and geology.

5.7.1.5 Disturbance within the Study Area

The primary sources of historic surface and subsurface disturbances in - and adjacent to - the project area are related to:

- Construction of the Los Angeles International Airport,
- Power plants, sewage treatment plants, and related constructions,

- Oil and chemical production, storage, and transfer facilities, and
- Typical residential and commercial expansions in the communities of El Segundo, Marina del Rey, Playa del Rey, and Manhattan Beach.

Oil and chemical production is confined to locations east of the existing El Segundo power plant site, while power plants and related constructions are concentrated at the existing El Segundo power plant site, and the Scattergood Plant. The Scattergood Plant is owned by the Los Angeles Department of Water and Power and is located to the north of the El Segundo plant site. The Hyperion Treatment Plant is a large sewage treatment facility located to the north of the Scattergood Plant.

5.7.1.6 Prehistory

The project area is localized along the Pacific Ocean shoreline of the Los Angeles Basin. Specifically, the proposed ESPR Project components are limited to the geomorphologic transition zone extending from the sandy beaches up into the Late Pleistocene and Holocene stabilized sand dunes immediately east, on the adjacent bluffs above the shoreline.

Chronological Overview. The Los Angeles plain and fringing coastline has supported a continuous cultural occupation for at least the last 8000 years. An Archaic occupation has been identified in the archaeological record that reflects the early emergence of non-agricultural village-based groups in the Los Angeles Basin. Current archaeological evidence suggests that a relatively small population existed in the basin until approximately 2000 years before present (B.P.). After that temporal marker, populations appear to have expanded considerably into resource-rich coastal and near-shore estuarine environments (Dillon 1990: 6). Reports from early European contacts to the area such as Juan Rodríguez Cabrillo (Wagner 1929: 79-93) and Sebastian Vizcaino (Bolton 1930: 52-103) indicated that some of the large coastal villages had hundreds of occupants. These observations appear to be supported by the archaeological evidence (Bean and Smith 1978: 540), although by the late 18th Century, reports indicate that the Los Angeles City environs supported only a small but established hunter/gatherer culture (Dillon 1990: 6).

Early Evidence.

Calico Hills. The presence of pre-Native American hominid occupation in the California desert at the Calico Hills site near Barstow, possibly dating to the period between 200,000 to 500,000 B.P., is controversial at best. There is still no firm archaeological evidence to support claims of a Middle Pleistocene hominid presence in the Americas. However, some have argued that there exists a few strands of possible evidence in the form of

chopper/chopping tools, scrapers, blade cores, and blades/bladelets found at the Calico Hills site (e.g., Leakey *et al.* 1968, 1969, 1972; Schuiling 1972, 1979).

Los Angeles Man. Partial remains of a skeleton referred to as 'Los Angeles Man' were recovered from the ancient channel of the Los Angeles river in the Baldwin Hills area. The 'Los Angeles Man' appeared to be contemporaneous with the partially preserved remains of an imperial mammoth. The remains, located some 370 meters apart (Moratto 1984: 53), revealed a similar fluorine content profile (Heizer and Cook 1952) and were recovered within the same geological unit. It was only years later that the 'Los Angeles Man' remains were finally dated, but by then the mammoth remains were not available for comparative study (Dillon 1990: 6) and only the cranium of 'Los Angeles Man' remained available for dating. The UCLA radiocarbon laboratory indicated the sample age to be >23, 600 (UCLA sample # 1430). Unfortunately, the sample (obtained from cranial bone collagen) was quite small and did not produce a confident date (*cf.* Chartkoff and Chartkoff 1984: 33-35).

Saber-toothed cat bones from the well-known Rancho La Brea tar pits and radiocarbon dated to 15,200 +/- 800 B.P. (uncalibrated) show signs of 'artificial' cut marks at oblique angles to the long axis of each bone (Moratto 1984: 54). If these cuts are in fact tool marks resultant from butchering activities, then this material would provide the earliest solid evidence human association with the Los Angeles Basin. Unfortunately, it is not clear whether residual contamination, as a result of saturation by asphaltum, has occurred in the bones, offsetting the radiocarbon dates (*ibid.*).

The 'La Brea Woman,' consisting of a cranium, mandible, and post-cranial remains of a 25-year old adult female, was recovered from Pit 10 at the Rancho La Brea tar pits. The remains were assigned to the Early Holocene due to their geological association with avifaunal remains (Dixon 1999: 130) typical from that period. A mano was also recovered in proximity to the remains, and Berger provided a radiometric date indicating 9000 +/- 80 B.P. (uncalibrated) (1975).

It must be noted that there is no substantial evidence of human occupation in the Los Angeles Basin until roughly 10,000 B.P. and this has, no doubt, made academic acceptance of the 'Los Angeles Man' date problematic (Moratto 1984: 53).

Paleoindian Period. The academic community generally accepts the 'La Brea Woman' remains as the earliest confirmed Paleoindian evidence in the Los Angeles Basin. At 9000 +/- 80 B.P. (uncalibrated) (Berger 1975), this would make the 'La Brea Woman' contemporaneous with the so-called 'big game hunting tradition' found at that time across most of the North American continent (Willey 1966: 37-38; and *cf.* Dixon 1999: 45-89).

The earliest evidence in the immediate project area comes from the Del Rey bluffs (Lambert 1983) along the southern fringes of the Ballona Lagoon and creek (the ancient outlet of the Los Angeles River) and situated only a few miles north of the El Segundo plant site. This evidence, mainly in the form of non-fluted points with a few crescents, appears to have typological connections with early desert sites to east. Points collected by Lambert include Lake Mohave types (Campbell *et al.* 1937), San Dieguito types (Rogers 1939), and Borax Lake points (Harrington 1948). Based on the chronologies established at these inland regions, many of the Del Rey bluff artifacts might date as far back as 9000 B.P. (Dillon 1990: 7).

The Millingstone Horizon. In Southern California, the Millingstone Period, also called the Millingstone Culture, extends to at least 6000 B.P. and probably as far back to 8500 + B.P. (*cf.* Warren 1968; Wallace 1955). Hard seed processing became one of the major components of subsistence during this period. Overall, the economy was based on plant collecting, but was supplemented by fishing and hunting. Initial in the near-shore and coastal locations, there also appears to have been infrequent exploitation of marine and estuarine resources (Wallace 1955).

The Millingstone Horizon is typified by large, heavy ground stone milling tools such as deep basin metates and wedge-shaped manos, and large core/cobble choppers and scrapers (Dillon 1990: 8). The portable manos and metates that characterize the Millingstone lithic assemblage were undoubtedly used as mobile processing equipment for collected plant materials. The reliance on this subsistence strategy and affiliated tools is further supported by the apparent scarcity of faunal remains at Millingstone sites. The flaked lithic tools trend towards a larger and cruder assemblage than the later periods. Projectile points and apparent hunting-type tools tend to be absent from Millingstone Culture assemblages. The so-called cogged stones, made by a characteristic pecking and grinding process, also appear in the Millingstone Horizon assemblages (Eberhardt 1961: 361-370).

Millingstone Horizon sites are found from Santa Barbara to Los Angeles County, and into San Diego County, in both coastal and inland settings. In the Los Angeles area, the Millingstone Culture is typified by the so-called Topanga Culture, with type sites from the Topanga Canyon area just south of Malibu (Wallace 1955; Leonard 1971). Topanga Culture sites have the typical Millingstone assemblage materials such as core/cobble tools and an abundance of ground stone implements (manos, metates), while projectile points tend to occur less frequently.

Meighan indicated that the Topanga Culture sites may date as far back as 8000 B.C. (1959: 289), and excavations at CA-LAn-1, also known as the 'Tank Site', have revealed a multi-phase evolution of the Millingstone Culture probably going back to the aforementioned date (Treganza and Bierman 1958: 75). Based on the excavations at the Tank Site, it appears that Phase I ranges from roughly 8000 and 4000 B.C., while Phase II ranges roughly between

5000 B.C. and 2500 B.C. Excavations at the nearby LAn-2 site indicate that the Millingstone cultural tradition may have prevailed until 1000 B.C. - much later than previously thought - but it is important to note that pestles and mortars, as opposed to mano/metates, prevail in the assemblage (Johnson 1966).

The Intermediate Period. This period has also been called the 'Hunting Period' or 'Middle Horizon.' About 5000 years ago, the Millingstone traditions, with their heavy reliance on vegetal food sources, began to gravitate more towards animal proteins and marine resources. Procurement of plants for caloric intake was not necessarily replaced in kind by game hunting, but rather the local Millingstone dietary regimen began to transition towards other/alternate resources. In the Los Angeles Basin, a higher percentage of projectile points and smaller chipped stone tools appear. Marine resources such as estuarine and saltwater shellfish, marine mammals, and fish are now abundant in the diets of the local inhabitants.

However, as excavations at sites such as the Little Sycamore shellmound in coastal Ventura County (Wallace *et. al.* 1956), the LAn-2 site in Topanga (Johnson 1966), and the Gilmore Ranch site in eastern Ventura County (Wallace 1955) indicate, there appears to be a rather vague transition in the archaeological record from the typical Millingstone assemblage to the Intermediate mortar/pestle and hunting tool kit. Specifically, manos and pestles appear in some instances as being contemporaneous, while at other sites, there is an adherence to the traditional Millingstone lifestyle. At Gilmore Ranch, more refined stemmed projectile points are present - unlike those in the Millingstone Horizon - and yet not necessarily akin to refined points typical of the Late Prehistoric Period.

On the Del Rey bluffs, the presence of desert-related features such as cremation burials, a lack of shell ornamentation, and an apparent distaste for marine resources indicate that some of the later Intermediate Period inhabitants of the Los Angeles Basin may have come from the desert (Van Horn 1987). In summary, within the Los Angeles Basin there appears to be a lack of uniform change, at any specific time or place, from the later Millingstone Horizon through to the later Intermediate Period.

The Late Prehistoric Period. Meighan (1954) originally characterized the Late Prehistoric Period in Southern California. The period probably began sometime around the B.C./A.D. transition, but probably expanded culturally around 500 A.D. with the introduction of the bow and arrow. The end of the period is recognized as the end of the 18th Century, when full implementation of the Spanish mission system took effect on the native populations. The Chumash, with a Hokan linguistic stock, and their neighbors to the east, the Gabrieliño with a language derivative from Shoshonean stock, lived in large villages along the coastal bay and the wide valleys leading into the California interior. The western Los Angeles Basin was occupied by the so-called 'Canalino' culture (Rogers 1929). This was an ethnohistoric boundary group situated between the Chumash to the northwest and the Gabrieliño to the

south and east. In the archaeological record, the Gabrieliño material culture (Johnston 1962; Blackburn 1963; Bean and Smith 1978) can be indistinguishable from the Chumash (Landberg 1965; Grant 1965; 1978a; 1978b).

Both groups interacted and traded with each other, with intermarriage also occurring between the groups. Kroeber (1925) originally indicated that the territorial division between the Gabrieliño and Chumash was at Topanga Canyon, although this is certainly an arbitrary division as there is no clear indication of this in the archaeological record. As Dillon has indicated (1990: 14-15), the coastal and inland areas were a more or less permeable ethnic frontier, continually in flux between the two groups at varying times in the archaeological record. Indeed, it is only in the later part of the Late Prehistoric - and even then only in certain marginal areas - that researchers can assume, with any confidence, which areas were typically Gabrieliño or Chumash. So, even though the rich Malibu site (CA-LAn-264) was a Chumash locus at the time of its abandonment (roughly 1825 A.D.), this should not imply that the site was always affiliated exclusively with the Chumash.

The coastal sites typically contain an abundance of shellfish and other marine resources. However, the presence of similar materials at inland sites suggests both trade and reliance, at least partially, on marine resources. Some of the coastal sites such as CA-LAn-114 in Malibu indicate a dietary transition over time from clams (during the Intermediate Period) to mussels (in the Late Prehistoric Period) (Dillon 1990: 14).

Certain indicators such as diagnostic shell beads and finely worked projectile points help identify many Late Prehistoric sites in Southern California. Both the Gabrieliño and Chumash were highly sea oriented and, given the presence of earlier sites on the offshore islands, this suggests that there was a maritime tradition at least partially carried over from the Millingstone and Intermediate Period cultures (Harrington 1978). By 1000 B.P the Canalino/Chumash/Gabrieliño maritime traditions were using blue-water vessels in an exploitation strategy partially based on deep-sea fishing and marine mammal hunting.

In the project vicinity, site CA-LAn-47, a Late Prehistoric Gabrieliño village locus, has yielded human burials, stone bowls, projectile points, bone tools, glass and shell beads, antler harpoons, choppers, hammerstones, scrapers and pestles (Dillon *et al* 1988; Wlodarski 1997). This site was probably a seasonal village occupied during resource procurement near the Ballona Lagoon. The Gabrieliño language derives from Shoshonean stock and suggests that that group may have originated from the east, perhaps from the eastern California deserts or the southern Great Basin (Kroeber 1925: 578-580). Unfortunately, there is not much archaeological evidence for the Gabrieliño from the Los Angeles Basin due to the rapid development that has occurred throughout the area, specifically within the last century.

Both the Chumash and Gabrieliño were responsible for distinctive polychrome pictographs (Grant 1965). The Santa Monica Mountains pictograph site CA-LAN-717, featured red monochrome paintings in direct association with an archaeological deposit. Dillon (1990) notes that there were surely Gabrieliño pictograph sites in the lowlands of the Los Angeles Basin, but that these probably did not survive the massive development of Los Angeles.

5.7.1.7 Ethnohistoric Period

The project area is located within the ethnographic boundaries of the coastal Chumash and the Gabrieliño. The following discussion has been synthesized from Dillon (1990), Bean and Smith (1978), Moratto (1984) and Grant (1978a; 1978b).

Anthropologists and linguists note that the Hokan language stock of the Chumash appears to be one of the oldest language groups in California. Linguistic evidence suggests that the Chumash ancestors must have been present in the area for at least several thousand years prior to European contact. The Gabrieliño, speakers of a Shoshonean-based language from the eastern Californian deserts, probably arrived into the Los Angeles Basin at a much later date. The project area lies almost exclusively within traditional Gabrieliño territory, but certain areas might, at one time, have been considered ethnographic territory of the Ventureño Chumash. The pre-European contact Chumash population of this area was probably between 10,000 and 15,000 individuals. To the south, the Gabrieliño, who occupied the San Fernando Valley and the Los Angeles basin as far east as San Bernardino, may have numbered 5,000.

The Chumash had a high level of material culture and craftsmanship, including intricate basketry, woodcarving, fine stone objects, well-developed rock art, and excellent canoes that highly impressed Spanish explorers. Most Chumash lived in permanent villages, composed of large round houses up to 50 feet in diameter, which might be home to as many as 10 families. Families were monogamous. The dietary staple for all Chumash groups was the acorn, though the addition of pine nuts, soaproot, berries, mushrooms, seeds, mollusks, fish, and game varied the diet. The material culture of the Gabrieliño appears to have been similar to that of the Chumash, including permanent villages and a subsistence strategy like that mentioned above.

During the Late Period, mainly circa 900 to 200 years ago, a highly advanced fishing and hunting strategy developed that included the exploitation of a wider variety of fish and shellfish. These new subsistence strategies, coupled with the appearance of the bow and arrow, enabled a substantial increase in local populations, the development of permanent settlements, and a 'money' economy based on the shell trade.

Antonio de la Ascencion, a friar accompanying Viscaino in 1602, documented that the Gabrieliño of Santa Catalina Island were constantly trading with their mainland counterparts (Ascencion 1615 [1929]). Mainly, steatite and shell ornaments, including the shell bead ‘money’ (1615 [op. cit.: 95-99]), were traded. Bean and Smith (1978: 540) estimate that perhaps 50-100 inhabitants occupied each Gabrieliño village at the time of the first Spanish contacts. The number of Gabrieliño in each household must have varied. Ascencion (1615 [1929: 237]) noted that some huts were large enough to hold 50 people, but were considered ‘single family dwellings.’ However, Dillon noted the observation by Costanso (1911, in Dillon 1990: 21) that multiple families lived in Gabrieliño houses on Santa Catalina Island.

The first recorded European contact with the Gabrieliño was by Juan Rodriguez Cabrillo in October of 1542 (see Wagner 1929). However, it was not until 1769 that Portola made the first Spanish overland expedition through present day Los Angeles County. Prior to that time, the Spanish were focused on the immediate coast and islands. Hence, the interior Gabrieliño probably had little European contact prior to Portola’s journey. While en route from San Diego to Monterey Bay, Portola stopped at an interior Gabrieliño village called Yang’na, situated on the western bank of the Los Angeles River, near what is now downtown Los Angeles. From there, Portola and his crew traveled west, through the Sepulveda Pass (now the 405 freeway), and into the San Fernando Valley.

Hugo Reid, an immigrant from Scotland who became a Mexican citizen of Los Angeles and married a Gabrieliño woman, is considered to be an important source for Gabrieliño village names and locations (Dillon 1990: 22). He noted 28 Gabrieliño villages or place names known to him from the 1830s and 1840s (Dakin 1978: 220-221). Reid noted the aforementioned Yang’na, as well as Maug’na (Rancho de los Veliz), and Cahueg’na (now near Cahuenga Boulevard).

In 1771, two years after Portola’s expedition, Mission San Gabriel was founded. It was at this time that the Native Americans from the Los Angeles Plain were encouraged to move from their old habitation sites to the mission area. The Gabrieliño name is derived from the mission at which they congregated. It was standard practice during the Spanish and Mexican periods to name the local inhabitants after the local Catholic Mission (Johnston 1962, La Lone 1980). The mission became the center of Gabrieliño culture during this earlier part of the historic period. It was during the 1800s that the Chinigchinich cult, reliant on the use of the psychotropic plant *Datura* by its practitioners, became known to Europeans (Boscana 1983). Boscana’s informants were Juaneño (from the San Juan Capistrano Mission). Kroeber (1959), through Juaneño informants at San Juan Capistrano, maintains that the Chinigchinich cult had come over from Santa Catalina Island (hence, Gabrieliño).

By 1832, the Spanish had baptized 7,825 Native Americans at the San Gabriel Mission. At that time, there were no remaining Native Americans living on the Los Angeles plain or the

adjacent coast. By the 1850s, the Gabrieliño ethnic identity had been almost entirely suppressed by the rapidly expanding Los Angeles population, and by the end of the 1800s, the Gabrieliño language and culture had been further eroded (Dillon 1990: 23).

5.7.1.8 Historic Setting

The project lies in the County of Los Angeles, and has components in the incorporated cities of El Segundo, Manhattan Beach, and the communities of Playa del Rey and Marina del Rey. The sections below are synthesized from an excellent summary by Dillon (1990), and general common knowledge of the Los Angeles city area.

As mentioned in the previous section, the Spanish initially focused their settlements on the coast and in nearby valleys, leaving the interior largely to its original inhabitants. Los Angeles was eventually founded as a small settlement on September 4, 1781, and the pueblo was known by the original name given by Portola, El Pueblo de Nuestra Señora de la Reina de los Angeles de Porciuncula. The pueblo's original lands equated some four square leagues with the northwest corner boundary just north of Santa Monica Boulevard and the western limit at Hoover Street. The early pueblo did not follow the traditional Spanish grid system, but rather it expanded in a random manner from the original central plaza. The first streets were nothing more than mule tracks and horse trails.

In 1786, the villagers of Los Angeles received formal titles for their settled plots, but apparently none of the inhabitants were literate. By 1800, the town had some 30 adobe houses and had become an important stop for trade along the Santa Fe Trail. In 1800, a flood from the Los Angeles River caught the town unaware, and the town had to be relocated onto higher elevations. The new plaza was built on Wine Street, since renamed after the first judge of Los Angeles, Agustin Olvera, as Olvera Street.

After successfully throwing off Spanish rule in the war of 1820-24, the Mexicans continued the general pattern of settlement in California established by their former government. Late in the 1830s, the Mexican government began to grant ranchos to Mexican and foreign settlers. The ranchos tended to be clustered in the vicinity of formerly Spanish coastal settlements, with a few were located in the interior. All across California, settlements established under Spanish and later Mexican rule as ranchos formed the basis for many emerging towns and cities (Hoover, Rensch and Rensch, 1966: 76-82). Los Angeles received a new influx of Anglo-Americans, and the town center became known as Sonora Town. By the end of the 19th Century, the old town had been absorbed into Chinatown, and after the 1960s, the only standing adobe was (and still is) the Avila Adobe at 14 Olvera Street.

Secularization of the missions in 1833-34 led to the break up of the various mission holdings. The San Gabriel Mission lands were parceled off, and the Native Americans living there

were dispersed. Some of these Native Americans moved to the town limits of Los Angeles and lived in brush houses. In 1836, citizens of Los Angeles put these Native Americans into a barrio known as the *Rancheria de los Poblanos* (near the southeast corner of Commercial and Alameda Streets). This somewhat suburban *rancheria* was in place until 1845, when a naturalized German with the assumed name Juan Domingo bought it and moved the Native Americans to the east. In the 1830s, according to Hugo Reid (Dakin 1978: 200), Los Angeles had roughly 1500 inhabitants. In 1835, Los Angeles was raised from *pueblo* status to that of a city, and was promptly made California's capitol.

During the Mexican War of 1846-1848, Los Angeles was the most important city on the Mexican-held Pacific Coast. On August 6, 1846, American Commodore Stockton captured San Pedro, and on August 13, John Charles Fremont and Stockton captured the city of Los Angeles. The American garrison was quite small, and on September 23, 1846, the local inhabitants revolted against the occupying force. About 300 *Angeleños* surrounded the hilltop garrison of Captain Gillespie and, trapped, Gillespie negotiated an agreement to withdraw to the San Pedro area. Three hundred and fifty reinforcement troops, sent from San Francisco, arrived at San Pedro on October 7, 1846 and joined Gillespie's troops. The battle of San Gabriel was lost by the Mexican forces on January 8, 1847. The Mexican forces retreated to the Los Angeles area, and were again defeated by the Americans on January 10, 1847. On January 13, 1847, the formal surrender document was signed at Campo de Cahuenga, ending California's role in the Mexican War. Finally, on February 2, 1848, the Treaty of Guadalupe Hidalgo was signed, confirming that California was now a Euro-American possession.

The Gold Rush of 1848 shifted attention away from Los Angeles, and by the time California became a state in 1850, the Los Angeles area was something of a backwater. Los Angeles slowly began to develop as a trading and transport center during the 1860s and 1870s, and there was a minor boom when gold was discovered in the Inyo Mountains. The silver strike at Cerro Gordo near Owens Lake also funneled many prospectors to and through Los Angeles. However, by the close of the 1860s, Los Angeles still had a population of only 5000 or so inhabitants.

By 1880, Los Angeles had over 10,000 people. Trash collection was instituted in 1867, gas lamps for the streets were installed in 1866, only to be replaced by electricity in 1882 due to a dispute with the gas company. In 1882, telephone service started, with the first Los Angeles phone book a mere three pages in length (Weaver 1973: 84). In 1887, the Santa Fe Railroad completed its link to Los Angeles. This rail connection helped to facilitate the big citrus boom in the Los Angeles Basin, and the population began to rise. Towards the end of the 1800s, the petroleum industry had picked up significantly in Los Angeles, especially after the formation of the Union Oil Company in 1880. One thing led to another, and on May 30, 1897, a Mr. J. Philip Erie drove the first car through the streets of Los Angeles. By 1915, Los

Angeles County had 750, 000 inhabitants and 55, 217 automobiles. By 1924, California was the largest oil producer in the United States, with most of that being pumped back into the cars of Angeleños.

Finally, movie making came to Los Angeles in 1903, in the form of the Electric Theater at 262 S. Main Street. This was the first theater in the country to exclusively play moving pictures, and had no accompanying burlesque or vaudevillian sideshows. The first dedicated film studio was opened in 1911, in Hollywood, at the corner of Sunset and Gower, and the rest is history.

City of El Segundo

The following historical information was referenced from the City of El Segundo web site: www.elsegundo.org/html/history/htm.

The City of El Segundo began as a melon patch, and into grew a major international business community. It all started in 1911 when five men stood on a sand dune and looked out over a vast melon patch. The five men were from Standard Oil Company. They were surveying the area as a potential site for their next oil refinery. What they required was an area adjacent to the seashore, so their tankers could have appropriate access. The undeveloped nature of the site appealed to them because they had to keep land costs down. And lastly, the site had to be close enough to populated areas so they could attract enough employees. The melon patch was perfect.

Of course, this new site needed a name. El Segundo, Spanish for “the second,” was the name given to the area because the site was to be Standard Oil’s second oil refinery. Six years after construction began, on January 18, 1917, the City of El Segundo was incorporated.

The city remained a one-industry town until the 1920s, when Mine’s Field, a landing strip used by early barnstormers, was chosen as the site for the new Los Angeles Municipal Airport. Then, in the mid-1950s, Southern California Edison purchased a 43-acre site for a major electrical generating station.

Naturally, the addition of the Los Angeles International Airport, which officially opened in 1930, had a major role in turning El Segundo into an aerospace center. The likes of Douglas Aircraft, Hughes Aircraft, Northrop and North American Aviation (Rockwell) all located in El Segundo during the 1940s and 1950s. Most of these aircraft-related companies would eventually transition into the aerospace/defense industry. In 1960, the creation of The Aerospace Corporation and Los Angeles Air Force Base once and for all gave El Segundo the esteemed title of “The Aerospace Capital of the World.”

Today, the city encompasses over five square miles, spanning from the Los Angeles International Airport on the north, to the Chevron Refinery on the south, to the Pacific Ocean on the west and Aviation Boulevard on the east. The city's population has leveled off at approximately 16,500 residents, which has enabled the community to preserve the small town intimacy and charm.

5.7.1.9 Native American Consultation

The ESPR Project Native American correspondences discussed below – including consultation letters, Native American mailing list, telecommunication notes, follow-up letters, and responses – are confidential. Copies are appended to the confidential Cultural Resources Technical Report, Appendix J.

Concurrent with the records search at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), and prior to the beginning of fieldwork, the California Native American Heritage Commission (NAHC) was contacted on October 6, 2000 for a list of local Native American groups and/or individuals with direct or indirect knowledge of cultural resources within or near the project area. These consultations also sought to identify any sacred lands within the proposed project area (including a one-mile radius study area) that are identified in the NAHC's Sacred Lands File. An initial search of the Sacred Lands File of the NAHC failed to indicate the presence of Native American cultural resources in the immediate project area.

Letters describing the project and a map of the proposed plant site and various components were sent by priority mail, with delivery confirmation, to 25 groups or individuals identified by the NAHC as appropriate contacts for Los Angeles County on October 18, 2000. The letters inquired whether the groups/individuals had any concerns regarding the project, or wished to provide input regarding cultural resources in the project area. No responses were received.

Changes in the project description subsequent to the initial mailing of contact letters necessitated the initiation of a second consultation process, in order to address new temporary staging and parking areas not included in the first NAHC request and mailing. A second letter was sent to the NAHC on November 1, 2000, requesting a search of the Sacred Lands File for the new project components, and a current list of contacts for Los Angeles County. The NAHC responded on November 6, 2000, with a negative search of the Sacred Lands File. A second set of letters and maps was mailed to the NAHC listed contacts on November 14, 2000, informing them of the revised project and soliciting comments from concerned groups/individuals.

CITY OF EL SEGUNDO TIMELINE

1917	City incorporates January 18, 1917
1919	Library moved to City Hall
1920	General Chemical Co. (now Allied) builds plant in El Segundo
1923	Standard Oil Company spends \$10-15 million on equipment program, making plant one of the largest of its kind in the world; Police and Water Departments established
1927	El Segundo High School opens with enrollment of 124
1929	ESHS graduates first class
1930	El Segundo Library opens with 1400 books
1933	Earthquake damages plunge, city hall and school buildings; Converse Building becomes second home for Library
1936	Mrs. H.E. Merritt becomes first female School Board member; elementary and high school districts combine to form El Segundo Unified School District
1938	City builds water treatment plant
1941	U.S. enters WWII December 7; City turns 25
1946	Nash-Kelvinator builds factory in El Segundo; West Basin Water District formed; Library construction resumes
1947	Fire Department established November 24 with 6 members
1948	West Basin Water District joins Metropolitan District; Library completed at a cost \$76,000; two-way radios installed in fire and police departments; City buys Maxim fire truck
1949	California and El Segundo celebrate Centennial; Center Street School opens
1956	City adopts Council-Manager form of government; Recreation Department formed; Imperial Street School opens; El Segundo becomes Aerospace Capital of the World
1957	Contract awarded to Marion Varner & Associates for \$80,000 to build Fire Station No. 2 at El Segundo Blvd. & Nash Street
1963	Library is expanded
1965	Junior High School completed
1966	Joslyn Center dedicated in Recreation Park
1967	City joins in week-long celebration of its 50 th anniversary; 1967 dedication of City Hall at 350 Main Street
1983	Raiders come to town; El Segundo Education Foundation founded
1986	Park Vista home for seniors opens its doors
1991	Library expands
1996	City mural program begins with 5 murals completed; Heritage Walk begins on Main Street
1997	City of El Segundo turns 80

URS Corporation received two telephoned responses, and one written response to the second mailing. A telephoned response from one individual was received by URS Corporation on November 17, 2000. This individual requested that an archaeological monitor be present to inspect all ground-breaking activity, especially trenching for utilities, and that a Native American monitor be present to monitor any construction resulting in subsurface disturbance in areas adjacent to known prehistoric sites. A second individual responded via telephone on November 20, 2000, stating that she had comments and requests, which would be detailed in a letter mailed to URS. Receipt of the letter is pending. A written response from a third individual was received on November 27, 2000, expressing concern that Native Americans be involved in the project, particularly in regard to monitoring of any ground disturbing construction activity. No other responses have been received to date. The Applicant is committed to forwarding copies of all correspondence to the CEC that may be received subsequent to submission of the AFC.

5.7.1.10 Key Personnel Qualifications

The cultural resources personnel who conducted and/or supervised the field survey and prepared the Technical Reports and Application for Certification (AFC) Section 5.7 are:

- Bryon Bass, Ph.D. (URS Archaeologist)
- Alex Wesson, B.A. (URS Archaeologist)
- Steve Mikesell, M.A. (JRP Historical Consultants)
- Brian Hatoff, M.A. (Principal Investigator for the project).

Mr. Hatoff and Dr. Bass meet the professional standards of the Secretary of the Interior for this work (Standards and Guidelines for Archaeology and Historic Preservation, National Park Service, 1983) and are certified by the Register of Professional Archaeologists.

5.7.1.11 Records Searches

Prior to initiation of the cultural resources inventory, pre-field research was conducted to identify the extent of prior archaeological surveys and known cultural resources within or adjacent to the project areas. Bibliographic references, previous survey reports, and archaeological site records were compiled through multiple records searches at the SCCIC of the CHRIS, at California State University, Fullerton. A total of three records searches were conducted at the Information Center (October 9, 2000, Invoice #8898; November 1, 2000, Invoice #8974, November 8, 2000, Invoice #9001). The plant site and linear project areas were searched with a one-half mile-wide study area (i.e. one-half mile each side of the APE). Proposed temporary staging and parking areas were searched with a one-quarter-mile-wide study area (i.e. one-quarter-mile each side of the APE). The one-quarter-mile-wide search radius was employed in these areas because no ground-breaking activities are planned for

these temporary staging and parking areas, thus reducing the possibility of adverse effects to cultural resources.

The SCCIC searches included a review of all recorded sites, surveys, historical listings, and historical maps within the project areas and specified study areas. Review of the existing archaeological survey information indicated that only limited portions of the project area had previously undergone archaeological survey. Access to some project components was limited in the field. Wherever possible, pedestrian survey was conducted. However, in areas of limited access, the subject lands were visually inspected from the perimeter.

Data relating to all previous archaeological surveys and previously recorded archaeological sites within or adjacent to the project APE were compiled. All sites were checked against the National Register of Historic Places (NRHP) (National Association of State Historic Preservation Officers *et al.* 1988), quarterly updates to the Historic Resources Inventory (Office of Historic Preservation 2000), California Historical Landmarks (Office of Historic Preservation 1997), and Points of Historic Interest (Office of Historic Preservation 1992), for any listed and eligible properties and locally listed historic properties and structures within the specified search radius for each project component. None of the previously recorded archaeological sites identified during the CHRIS records search had been formally evaluated for National Register eligibility.

Previous Cultural Resource Surveys within Project APE or Adjacent Study Area

Twenty cultural resource studies on file with the SCCIC have been conducted within the project APE and/or the given search radius around each proposed project component. References and brief overviews of the previous surveys are given in Table 5.7-1.

Previously Recorded Archaeological Sites within the Project APE. There are no previously recorded archaeological resources located within the project APE. (See Table 5.7-2.)

Previously Recorded Sites within Adjacent Study Areas (Outside Project APE). A total of four archaeological sites have been documented within a one-quarter-mile radius of the project APE (Table 5.7-3). The specific detailed descriptions and locations of these sites can be found in Appendix J.

CA-LAn-47 (P-19-000047). This resource is a large prehistoric Native American village site, variously referred to as CA-LAn-47 (P-19-000047), “the Admiralty site,” and “Sa’anga” or “Sa’Angna.” The site is listed as a City of Los Angeles Historic-Cultural Monument. It is located northwest of the proposed Marina Del Rey Boat Launch Parking Area. This substantial occupation site has yielded human remains as well as bowl mortars, pestles,

projectile points, lithic and bone tools, shell beads, antler harpoons, and chert debitage. This site has been excavated several times, including salvage recoveries of human remains (Dillon 1988; Altschul 1990; Altschul, et al. 1992; Levine 1969). Dillon (1988) concluded that CA-LAn-47 was occupied during the Late Prehistoric Period, probably by the Coastal Gabrieliño. The site itself spans several different parcels with different ownership. Varying degrees of disturbance are also present on these different parcels, however, several test excavations have shown that intact deposits remain in some areas.

CA-LAn-1698 (P-19-001698). This prehistoric site, consisting of a scatter of marine shell, is located east of the proposed Marina Del Rey Boat Launch Parking Area. The site was recorded in 1989 by N. Neuenschwander of Peak & Associates. A shovel testing program (LA-2445), conducted by Peak & Associates in 1990, found a variety of marine shell species, assorted historic debris, but no prehistoric lithics or tools. Peak concluded that the site was highly disturbed, and that the placement of a trench for a fiber optic line through the site would not impact cultural resources. However, it was recommended that an archaeological monitor be present during the installation of the fiber optic line, in case an intact cultural deposit remained at the site.

CA-LAn-2386/H (P-19-002386). This resource consists of an intact World War II era observation bunker, constructed of concrete, with a fronting concrete “apron” on the ocean side. This historic site was recorded by Bissell in 1995. The bunker is located on the south side of Killgore Street, approximately one-quarter-mile west of the proposed LAX Pershing Staging Area.

CA-LAn-2345 (P-19-002345). This is a large prehistoric site eroding out of sand dunes, featuring hundreds of chipped lithic and groundstone fragments, faunal remains, marine shell fragments, and thermally affected stones, observed in six distinct loci. A possible hearth feature, comprised of a roughly circular alignment of thermally affected stones, was observed partially exposed in the side of a dune. This site was recorded by Bissell in 1995, who suggested that the excavation of a large borrow pit near the site has created conditions favorable for aeolian erosion in the area of the archaeological site, with sand moving from the site into the borrow pit. The site is located southeast of the proposed Dockweiler State Beach Parking Area and southwest of the proposed LAX Pershing Staging Area.

Field Survey. Preparation for the cultural resources field survey consisted of an inventory and overview of all known cultural resources within the study area. This study provided the basis for evaluating project impacts and assessing current survey requirements and cultural resources likely to be present in the project area. Review of the existing archaeological survey information indicated that only limited portions of the project area had previously undergone archaeological survey, indicating the need for field inventory. Access to some

project components was limited in the field. Wherever possible, pedestrian survey was conducted. In all cases, the subject lands were visually inspected. Essentially, the bibliographic survey, coupled with the project field survey, facilitates an accurate assessment of the cultural resources possibly affected by project implementation.

Survey Methodology and Coverage

Archaeology. Figure 5.7-2 illustrates the project components and the areas surveyed for cultural resources, and Table 5.7-4 gives the specific coverage details and field conditions encountered at each project component. On November 3, 2000 Bryon Bass of URS Corporation conducted the field inventory for archaeological resources. The existing El Segundo plant site and proposed linear project areas were surveyed on foot. Systematic, regularly-spaced transects were not employed, as the environment is nearly all built, which precluded the observation of native surfaces in most cases. The aqueous ammonia line route crosses the Chevron Refinery. This linear component is slated to use existing Chevron pipes and established utility corridors, however some trenching may be required. The various parking lots proposed for project use were inspected.

A second field visit was made on November 29, 2000 by Bryon Bass, in order to inspect areas not accessed during the first visit. The Kramer Staging Area and the Federal Express Staging Area were both surveyed for cultural resources, utilizing pedestrian inspection. As the Kramer Staging Area is paved and the Federal Express Staging Area is covered in opportunistic grass and shrubs. No cultural resources were detected within the APE at either area. However, concrete foundations of a 1951 foundry, located within the study area adjacent to the Kramer Staging Area but outside the project APE, were recorded on a primary record form. (See Table 5.7-7 and Appendix J.)

Built Environment. An on-site historic evaluation of existing structures on the power plant site was conducted on October 12, 2000 by Stephen D. Mikesell and Meta Bunse of JRP Historical Consulting Services. Extensive background research was conducted to provide a historical context for the construction and use of each structure. All structures were documented and photographed. The generating station as a whole was evaluated to determine if the complex qualifies for listing in the NRHP, or as a historic resource under applicable guidelines (Section 15064.5 (a)(2)-(3)) of CEQA.

On November 3, 2000, Stephen D. Mikesell of JRP Historical Consulting Services conducted an on-site inspection of various sites that might be used for ancillary elements of the El Segundo Generating Station Project to determine whether potential historic architectural resources were present. He was accompanied on this inspection by staff from URS Corporation and Chevron. JRP Historical Consulting Services had previously inspected the existing El Segundo Generating Station, where the majority of all construction activities will

TABLE 5.7-6

NEWLY RECORDED SITES OR ISOLATES WITHIN THE PROJECT APE

Site No.	USGS 7.5' Quad	Project Component	Site Type	Resources present	Status
NO ARCHAEOLOGICAL SITES OR ISOLATES WERE RECORDED DURING THE FIELD INVENTORY					

TABLE 5.7-7

NEWLY RECORDED SITES WITHIN ADJACENT STUDY AREAS (OUTSIDE PROJECT APE)

Site No.	USGS 7.5' Quad	Project Component	Site Type	Resources present	Status
N/A	Venice	Kramer Staging Area	historic	Concrete foundations from 1951 foundry	5- Not Evaluated

occur. The inspection on October 3, 2000 included the proposed aqueous ammonia supply line route and the ancillary parking/staging areas, as described above. The purpose of the on-site inspection of these ancillary sites was two-fold. First, it was designed to determine whether the project would directly or indirectly affect any buildings or structures at any of the sites that might have the potential for historic significance, under federal or state law. Second, it was designed to determine the sensitivity for historic architectural resources of the general area for each of the ancillary sites, and the corollary the potential for indirect impacts on potentially significant buildings or structures.

On November 10, 2000, Stephen D. Mikesell of JRP Historical Consulting Services conducted an on-site inspection of proposed routes for water and sanitary lines to determine whether potential historic architectural resources were present. Like the previous inspection of ancillary facilities, the purpose of the field inspection was designed to determine whether the project would directly or indirectly affect any buildings or structures along the proposed water and sanitary line routes that might have the potential for historic significance, under federal or state law. The survey was also designed to determine the sensitivity for historic architectural resources of the general area for each of the proposed water and sanitary lines, and the corollary potential for indirect impacts on potentially significant buildings or structures. The eastern end of the water lines are being considered within a study area, it was necessary to inspect all possible alternatives. The study area covers the connection between El Segundo Boulevard and Grand Avenue. The full range of alternatives extends from Eucalyptus Street on the east to Loma Vista Street on the west, and from Grand Avenue on the north to El Segundo Boulevard on the south. Stephen Mikesell of JRP Historical Consulting Services drove and walked all of the streets that frame this 14-block area, inspecting every building on these streets, including buildings on the outer edges of Grand, Eucalyptus, Loma Vista, and El Segundo, which are the outside streets in this area. Pursuant to CEC staff direction, Mr. Mikesell identified all buildings within the 14-block area that appear to have been built 50 or more years ago (see Table 5.7-7). Also pursuant to CEC staff direction, formal recordation of these structures on California DPR 523 Forms was not undertaken at this time.

Mr. Mikesell also made a cursory assessment of their potential for listing in the NRHP. Buildings were not formally recorded or evaluated, however, the cursory visual assessment did offer an initial indication as to the architectural merit and integrity of the buildings. As noted in Table 5.7-8, each of the buildings has been assigned a potential significance rating. Buildings rated as “None” or “Low” potential significance have been heavily modified and thus, in the opinion of the project’s architectural historian, would not qualify for inclusion on the National Register of Historic Places or California register of Historic Resources.

The results of the assessment are further addressed in Section 5.7.1, under Current Survey Results, and detailed in Appendix K. Figure 5.7-3 depicts all areas surveyed for historic built environment resources.

TABLE 5.7-8

IDENTIFIED HISTORIC BUILT ENVIRONMENT RESOURCES ADJACENT TO PROJECT COMPONENTS *

Street Address (El Segundo, CA)	Potential Significance	Estimated Date	Project Component	Street Address (El Segundo, CA)	Potential Significance	Estimated Date	Project Component
301-303 Main Street	High	1920	Water Lines	135-139 Concord	Medium	1925	Water Lines
116-126 Grand Ave.	None	1920	Water Lines	224 Concord	Medium	1915	Water Lines
200-206 Grand Ave.	Low	1915	Water Lines	221 Concord	Medium	1915	Water Lines
201-207 Grand Ave.	Medium	1915	Water Lines	115 Virginia	Low	1915	Water Lines
219 Grand Ave.	None	1930	Water Lines	117 Virginia	None	1915	Water Lines
406 Grand Ave.	Low	1920	Water Lines	215 Virginia	Low	1915	Water Lines
412 Grand Ave.	Low	1915	Water Lines	202 Whiting	Medium	1915	Water Lines
500 Grand Avenue	None	1945	Water Lines	210 Whiting	Low	1915	Water Lines
201 Franklin	High	1915	Water Lines	214 Whiting	Low	1915	Water Lines
216 Franklin	Low	1915	Water Lines	229 Whiting	Low	1915	Water Lines
215 Franklin	Low	1915	Water Lines	225 Whiting	Low	1915	Water Lines
324 El Segundo	None	1940	Water Lines	224 Whiting	Low	1925	Water Lines
111-115 Main St.	Low	1945	Water Lines	115 Loma Vista	Low	1940	Water Lines
Richmond, Franklin to El Segundo	High	1915	Water Lines	117 Loma Vista	Low	1940	Water Lines
Richmond, Franklin to Grand	High	1915	Water Lines	207 Loma Vista	Low	1945	Water Lines
147 Concord	Medium	1915	Water Lines	213 Loma Vista	Medium	1930	Water Lines
				215 Loma Vista	High	1930	Water Lines

* Per CEC staff direction, these properties were not formally recorded/evaluated on DPR 523 forms. No potentially significant properties were identified adjacent to other project components.

Newly Recorded Sites and Isolates. No new archaeological sites or isolates were recorded during the survey (See Table 5.7-4), however one primary record form was completed on the foundations of the former H. Kramer Company foundry located adjacent to the Kramer Staging Area (See Table 5.7-5).

5.7.1.12 Survey Results

5.7.1.12.1 Power Plant Site

Topography, Soils, and Existing Conditions. The power plant site is located on an existing 32.8 acre power plant site at the edge of Santa Monica Bay, in the City of El Segundo, just north of the City of Manhattan Beach. The power plant site is bounded by 45th Street to the south, Dockweiler State Beach to the west, the Chevron Marine Terminal to the north, and Vista Del Mar Avenue to the east. The existing electric generating station is currently comprised of four gas-fired conventional, electric power generating units. Several other existing ancillary structures are also present on the site.

Previous Work. No prior cultural resource surveys have been conducted on the power plant site and no previously recorded sites are located on the subject lands. The northernmost extent of survey LA-01625 (Woodward 1987) is located immediately to the southwest, at the border of Manhattan State Beach. Several structures, dating to the mid- to late-twentieth century, exist on the power plant site. No known previous historic evaluations have been conducted on these structures.

Current Survey Results (Power Plant Site)

Archaeology. The proposed plant site was surveyed utilizing pedestrian inspection. No archaeological sites were detected within the plant site.

Built Environment. An historic evaluation of the existing power plant site, and all of the structures contained therein, was conducted on October 12, 2000 by Stephen D. Mikesell and Meta Bunse of JRP Historical Consulting Services. Extensive background research was conducted to provide a historical context for the construction and use of each structure. All structures were documented and photographed. The generating station as a whole was evaluated to determine if the complex qualifies for listing in the NRHP, or as a historic resource under applicable guidelines (Section 15064.5 (a)(2)-(3)) of CEQA. The generating station complex was recommended to be ineligible for listing in the NRHP and not an important historic resource under CEQA.

TABLE 5.7-5

ARCHAEOLOGICAL SURVEY COVERAGE BY PROJECT COMPONENT AND FIELD CONDITIONS

Project Component	Field Conditions	Comments
Power Plant Site	0 percent ground visibility; entire facility is built environment.	Pedestrian field inspection, no visibility and no exposures.
Water Supply Lines (Potable & Reclaimed) – Route 1	0 percent ground visibility; entire linear component is built environment.	Visual inspection, no visibility and no exposures.
Sanitary Discharge Line – Route 2	0 percent ground visibility; entirely built underneath sand and rip-rap.	Pedestrian field inspection, no ground visibility and no exposures.
Aqueous Ammonia Supply Line – Route 3	0-2 percent ground visibility; The Aqueous Ammonia Line component runs from the El Segundo Power Plant across the Chevron El Segundo Refinery property. The entire Chevron property is essentially a built refinery environment with nearly all open spaces covered by asphalt and/or imported gravels. Most of the natural sand dunes have been covered with the asphalt to prevent creep and subsidence. There are almost no surface exposures throughout the entire length on the Aqueous Ammonia Line. Chevron indicated that the aqueous ammonia line will, in most instances, run through existing refinery pipes. Survey occurred in areas deemed safe and appropriate by Chevron staff. The survey required a Chevron staff member to serve as escort across the refinery. No cultural resources were observed in the exposures.	Survey of the entire linear component via pedestrian walking (non-transect). Limited access to the Chevron areas due to safety concerns.
Kramer Staging Area – Area 1	0 percent ground visibility; area is paved.	Pedestrian field inspection, no ground visibility and no exposures.
Federal Express Staging/Parking Area – Area 2	0-5 percent ground visibility. Field is covered in grass and scrub brush.	Pedestrian field inspection, no ground visibility and no exposures.
LAX Pershing Staging/Parking Area – Area 3	0 percent ground visibility. Entire area is an existing parking lot.	Pedestrian field inspection, no ground visibility and no exposures.
Marina Del Rey Boat Launch Parking Area – Area 4	0 percent ground visibility. Entire area is an existing parking lot.	Pedestrian field inspection, no ground visibility and no exposures.
Dockweiler State Beach Parking Area – Area 5	0 percent ground visibility. Entire area is an existing parking lot.	Pedestrian field inspection, no ground visibility and no exposures.
Hyperion Parking Area – Area 6	0 percent ground visibility. Entire area is an existing parking lot.	Pedestrian field inspection, no ground visibility and no exposures.
Grand Avenue Parking Area – Area 7	0 percent ground visibility. Entire area is an existing parking lot.	Pedestrian field inspection, no ground visibility and no exposures.
Chevron Marine Terminal Staging Area – Area 8	0-5 percent ground visibility; area mostly covered in asphalt, with some minor surface exposures.	Pedestrian field inspection, minimal ground visibility, one exposure at location where Chevron had previously excavated.

5.7.1.12.2 Pipeline Routes

Route 1 – Water Supply Lines

Topography, Soils, and Existing Conditions. The entire route of the potable and reclaimed water lines (including alternatives) lies within paved city street in an existing, disturbed utility corridor. This area was afforded a brief visual inspection, but due to the lack of ground visibility (0%), the area was not systematically surveyed for archaeological resources. The proposed route (and alternatives) was systematically surveyed by the project architectural historian, due to the presence of numerous residential and commercial structures adjacent to the proposed alternative routes for the potable and reclaimed water lines within the City of El Segundo.

Previous Work. No cultural resources have been recorded along this route (and alternatives), and only a small portion of the potable and reclaimed water line route (and alternatives) has been surveyed previously. The portion of the route on Grand Avenue, from Vista Del Mar to just west of Loma Vista Street has been covered by two different surveys of the Hyperion Treatment Plant. Due to the submission of a handwritten copy and a typed copy of the report to the SCCIC, the first survey has erroneously been assigned two distinct numbers and authors (LA-125 (Leonard 1975) and LA-4051 (D’Altroy 1975)). The text in both of these copies is identical, and as such, the two reports are considered to represent one survey. The other survey conducted at the Hyperion Treatment Plant is LA-3494 (Briuer 1976). Neither of these surveys revealed the presence of cultural resources. No known previous historic evaluations have been conducted along the proposed potable and reclaimed water line route (and alternatives).

Current Survey Results (Water Supply Lines)

Archaeology. The proposed potable and reclaimed water line route (and alternatives) lies within a highly disturbed utility corridor, within paved city streets. The potable and reclaimed water line route (and alternatives) was afforded a cursory visual assessment, but the total lack of ground surface visibility precluded the need for systematic pedestrian survey.

Built Environment. Within the zone of alternative water line routes (framed by El Segundo, Loma Vista, Grand, and Eucalyptus streets in the City of El Segundo), there are 58 buildings or structures that appear to have been built 50 or more years ago (See Table 5.7-7). The specific location and description of each is provided in Appendix K. The older buildings are scattered throughout the zone, although the distribution is uneven. The highest concentration of potentially significant buildings is along Richmond Street between El Segundo Boulevard and Grand Avenue. Whiting, Virginia, and Loma Vista also include older buildings; these are

residential streets and all of the older buildings are single-family homes or apartment buildings, with the concentration of older buildings much lower than along Richmond Street. There are virtually no buildings along Eucalyptus, Standard, and Main Street that appear to have been built 50 or more years ago (See Table 5.7-7). The only properties along Grand Avenue west of Loma Vista, and along Vista Del Mar to the plant site are large-scale industrial facilities, namely the Department of Water and Power steam plant, the Chevron refinery, and the El Segundo steam plant.

As noted in Table 5.7-7 each of the buildings has been assigned a potential significance rating. Buildings rates as “None” or “Low” potential significance have been heavily modified and thus, in the opinion of the project’s architectural historian, would not qualify for inclusion on the National Register of Historic Places or California register of Historic Resources. Those buildings rated “Medium” or “High” have the potential to be considered significant under criterion C of the National Register of Historic Places and the California Register of Historic Resources. That is they appear to embody the distinctive characteristics of a type, period, region or method of construction.

Route 2 – Sanitary Discharge Line

Topography, Soils, and Existing Conditions. The sanitary discharge line exits the ESPR Power Plant near the southwest corner of the plant. The discharge line will extend south for approximately 150 feet, crossing over a rip-rap barrier for the edge of the bicycle path. The area to the west is a combination of the sandy beach fill and low Holocene dunes of Manhattan Beach. To the east are apartments and the city bike path. There were no exposures of native surfaces in the survey corridor.

Previous Work. This area may have been surveyed during Woodward’s 1987 survey of Manhattan State Beach (LA-1625), however the eastern extent of the survey coverage is unclear. No archaeological sites were recorded during that survey. No known previous historic evaluations have been conducted on structures near the proposed sanitary discharge line.

Current Survey Results (Sanitary Discharge Line)

Archaeology. The proposed sanitary discharge line was surveyed by pedestrian inspection. No sites were detected within the survey corridor

Built Environment. Other than the El Segundo steam plant itself, there are no historic properties near the route of the proposed sanitary discharge line. Pedestrian inspection of two blocks of beachfront residences (45th to 44th and 44th to 43rd Streets in the City of Manhattan

Beach) by the project architectural historian detected no buildings that appear to have been built 50 or more years ago.

Route 3 – Aqueous Ammonia Supply Line

Topography, Soils, and Existing Conditions. The aqueous ammonia supply line will exit the ESPR Power Plant site near the northeastern portion of the plant. The aqueous ammonia supply line will be bundled with existing utilities, crossing Vista Del Mar, and entering the west side of the Chevron Refinery. Once inside the refinery boundary, the aqueous ammonia supply line continues to follow an existing, disturbed utility corridor to the east. The existing utility corridor follows a paved driveway and then a railroad track, into a switchyard, where it ends. The component runs from the El Segundo Power Plant across the Chevron El Segundo Refinery property. The entire Chevron property is essentially a built refinery environment with nearly all open spaces covered by asphalt and/or imported gravels. Most of the natural sand dunes have been covered with the asphalt to prevent creep and subsidence. There are almost no surface exposures throughout the entire length on the Aqueous Ammonia Line.

Previous Work. No prior cultural resource surveys have been conducted along proposed aqueous ammonia supply line route, nor are there any previously recorded sites located within or adjacent to this linear route. Survey LA-2950 (Peak and Associates 1992), which surveyed a linear route for a proposed pipeline stretching from Santa Barbara to the Chevron Refinery, was terminated approximately 700 feet to the east of the eastern end of the proposed aqueous ammonia supply line. This survey documented many sites, but did not discover any cultural resources within the USGS 7.5 minute quadrangle of Venice. No known previous historic evaluations have been conducted on structures within the Chevron Refinery.

Current Survey Results (Aqueous Ammonia Supply Line)

Archaeology. Survey along the proposed Aqueous Ammonia Supply Line detected no archaeological sites.

Built Environment. JRP Historical Consulting Services examined the entire pipeline alignment, from aqueous ammonia tanks well inside the Chevron refinery to the edge of the El Segundo Generating Station. Along the majority of the length, the new pipe would be installed on existing pipe racks (above-ground metal structures that support various types of pipes). In many instances, the pipe will be installed within existing pipes that are no longer in use. The number of pipes on each rack differs from one place to the next. The refinery is laced with pipe racks that support hundreds, perhaps thousands of pipes that range from a few inches to several feet in diameter. While there are a few buildings within the refinery that

may be 50 years or older, none is near the aqueous ammonia tanks or any part of the pipeline route to the steam station.

5.7.1.12.3 Areas.

Area 1 – Kramer Staging Area

Topography, Soils, and Existing Conditions. This is a highly disturbed, industrialized area located between two alignments of railroad track. The proposed equipment staging area is paved with asphalt, and features an integral rainwater drainage system encompassing the blacktop. The asphalt covers a deposit of slag and debris from the former H. Kramer Company foundry that was determined to be hazardous, and hence capped. There are no soils visible in the area. The area is generally flat. The foundations of the former H. Kramer Company foundry are located to the southwest of the Kramer Staging Area. The foundations are in situ, but there are no remaining walls. Weeds have grown through cracks in the ground across the foundry, and it appears that most of the foundry site has been used for illegal concrete/ brick/ glass dumping. A stripped modern motorcycle frame was noted along the western fence line at the edge of the former H. Kramer Company foundry.

Previous Work. Survey LA-2950 (Peak and Associates 1992), was conducted along the Southern Pacific railway alignment which forms the northwest boundary of the proposed Kramer Staging Area. As stated above, this survey did not result in the recordation of any cultural resources within the USGS 7.5 minute quadrangle of Venice. No known previous historic evaluations have been conducted within the proposed Kramer Staging Area.

Current Survey Results (Kramer Staging Area)

Archaeology. The area was surveyed by pedestrian inspection across the property tarmac. Native ground visibility was 0% across the entire proposed Kramer Staging Area. To the northwest, a rail spur noted on USGS maps as ‘Old Railroad Grade’ is situated adjacent to, but not on, the Kramer Staging Area. This railroad grade may have passed southwest of the proposed Kramer Staging Area at one time, however there is no trace of the alignment or berm visible between the two existing railways (See Figure 5.7-5). No archaeological resources were detected during the pedestrian survey, however the foundry foundations described below, which are located to the southwest of the proposed staging area, were recorded on a primary record form (See Table 5.7-6 and Appendix J).

Built Environment. There are no standing buildings or structures at this 11.5-acre site, located at the terminus of Chapman Way in the City of El Segundo. The site is also occupied by an asphalt-paved area which “caps” industrial waste from the former H. Kramer Company

Foundry. The foundations of this foundry are located to the southwest of the proposed staging area. There are very few buildings or structures that may be seen from this site or from which the site may be seen. The parcel is an isolated, nearly landlocked remnant framed by railroad tracks, other vacant parcels, and the rear elements of industrial facilities.

H. Kramer and Company operated a foundry southwest of the proposed Kramer Staging Area, however, none of the foundry buildings or any of its related facilities remain. The only visible remains of the foundry are the foundations and the asphalt-capped slag heap. According to the caretaker of the property, the H. Kramer Company built and operated a foundry on this site beginning in 1951. This is consistent with USGS mapping for the area that shows the site as vacant in 1950. By the time of the next edition of the topographic map (1964) a large building had been erected on the parcel. The building was razed sometime after 1981 and prior to 1995. This time frame is based on the last edition of USGS mapping of the area (1981) and a 1995 "Initial Study" filed with the El Segundo Planning Department submitted as part of a plan to erect a hot mix asphalt plant on the parcel (Meyer 1995). This study concluded that the remnants of the foundry and the surrounding properties were devoid of any cultural, historical, or scenic aspects. The project architectural historian has concluded that the foundations located adjacent to the Kramer Staging Area retain no historic integrity whatsoever, and do not appear to meet the criteria for listing on the National Register of Historic Places.

The Kramer Staging Area is partly bounded by two railroad lines. The alignment on the north side was originally a portion of the El Segundo branch of the Pacific Electric. The Southern Pacific Railroad later acquired the line before being taken over by Union Pacific in 1995. The Kramer Staging Area is adjacent to, but does not include this line. In addition to these existing railroad lines, a rail spur noted on USGS maps as 'Old Railroad Grade' is located to the northwest (adjacent to, but not within, the Kramer Staging Area). This railroad grade has been obliterated in the vicinity of the proposed staging area.

Area 2 – Federal Express Staging/Parking Area

Topography, Soils, and Existing Conditions. The property is an open, plowed field that is covered in opportunistic grasses and scrub vegetation. The entire area appears to have been bulldozed and plowed with a heavy equipment rake. There was only 0% to 5 % native ground visibility. These areas were strictly limited to random geomorphologic windows created through bioturbation across the property.

Previous Work. No previous surveys have been conducted within the proposed Federal Express Staging Area. There are no previously recorded cultural resources located within or adjacent to this area. No known prior historical evaluations have been conducted within the proposed Federal Express Staging Area.

Two documents, an environmental impact report for a proposed Federal Express Facility (PCR Environmental Services 1998) and an initial study for a proposed media center (RBF 2000) both concluded that there would be no impact to cultural resources. There is no indication that records searches or field surveys were conducted.

Current Survey Results (Federal Express Staging/Parking Area)

Archaeology. Due to the lack of ground visibility, survey strategy was confined to random pedestrian field survey and inspection of disturbed areas. No cultural resources were noted on the property.

Built Environment. This 46-acre vacant parcel, located at Mariposa Avenue and Nash Street in El Segundo, was owned and used at one time by Northrup Grumman Corporation. There are no buildings or structures on the site, nor is there any evidence of foundations or remnants of former buildings. Such foundations may, however, exist, beneath vegetation. This parcel is situated in a developing commercial and industrial area of El Segundo, an area that is dominated by new construction. It is framed on all four sides by buildings that appear to have been constructed within the past 20 years.

Historic fire insurance maps for El Segundo only record buildings and structures near the center of the town in 1917 and 1929, the years that the Sanborn Map Company produced maps of the area. Neither edition indicates that there were buildings at this site during that period (Sanborn Map Company 1917 and 1929).

Area 3 – LAX Pershing Staging/Parking Area

Topography, Soils, and Existing Conditions. This component consists of an existing asphalt-paved parking lot located at the southwest end of the LAX runways. No exposures of native surfaces were visible in the area.

Previous Work. No known prior historic evaluations have been conducted within this area. Although not plotted by the SCCIC, this area was surveyed in 1995 by Bissell, during his 1995 survey of the entire LAX property (no number). The proposed LAX Pershing Staging/Parking Area may have been surveyed during Leonard's 1974 study of LAX (LA-96), however no map showing the extent of his survey coverage is available. No previously recorded cultural resources are located on the subject lands. However, two previously recorded cultural resources are located within one-quarter-mile of the proposed LAX Pershing Staging/Parking Area. A large prehistoric site (CA-LAn-2345) is located to the southeast and a historic concrete bunker (CA-LAn-2386/H) is situated to the west. In addition to Bissell's 1995 survey of the LAX property and LA-96, which probably covered

the proposed LAX Pershing Staging/Parking Area, four cultural resources surveys have been conducted within one-quarter-mile. Surveys LA-3673 and LA-309 covered portions of Imperial Highway (approximately 500 feet to the south). Survey LA-3673 also covered a curvilinear swath within LAX property, running roughly northeast to southwest, which runs as close as roughly 100 feet near the southwest corner of the proposed LAX Pershing Staging Area. In addition, two studies of the Hyperion Treatment Plant (LA-125/4051 and LA-3494) were conducted south of Imperial Highway, approximately 250 feet to the south of the proposed LAX Pershing Staging Area.

Current Survey Results (LAX Pershing Staging/Parking Area)

Archaeology. The proposed component was surveyed by pedestrian inspection. No sites were detected within the proposed project component.

Built Environment. There are no buildings or structures on this parcel, which is located near the western end of the LAX property off Pershing Drive. This parcel is located at the end of major runways at LAX, a location that necessitates that there be no buildings or structures within the vicinity. The only visible building from the site is the Scattergood Plant, a steam generating plant owned by Los Angeles Department of Water and Power. This facility is located approximately three-quarters-of-a-mile to the south but is visible owing to the great height of the stacks.

Area 4 – Marina Del Rey Boat Launch Parking Area

Topography, Soils, and Existing Conditions. This component consists of an existing asphalt-paved parking lot located at the northeast end of the Marina del Rey boat launch. There were no exposures of native surfaces in the area.

Previous Work. No prior cultural resource surveys have been conducted within the proposed Marina Del Rey Boat Launch Parking Area, however nine studies have been conducted within one-quarter-mile. No known prior historic evaluations have been conducted within the area. No previously recorded cultural resources exist within the area itself, however, two prehistoric archaeological sites (CA-LAn-47 and CA-LAn-1698) are located within one-quarter-mile. The prehistoric Coastal Gabrieliño village of Sa'anga, also known as CA-LAn-47 or "The Admiralty Site," is located to the northwest. This major occupation and burial site has been investigated several times, and was declared a Historic-Cultural Monument (No. 490) by the City of Los Angeles in 1990. Another prehistoric site (CA-LAn-1698) is located to the east of the proposed Marina Del Rey Boat Launch Parking Area, adjacent to Lincoln Boulevard (Highway 1).

Several cultural resources studies have been conducted within one-quarter-mile of the proposed Marina Del Rey Boat Launch Parking Area. Five studies have been conducted on CA-LAn-47, located to the northeast (LA-3495, LA-2673, LA-3583, LA-2669, LA-2558). In addition, survey LA-1975 was conducted along portions of Mindanao Way and Lincoln Boulevard (Highway 1), approximately 400 feet east of the proposed Marina Del Rey Boat Launch Parking Area. Study LA-3898 addressed the area of Hammock Street and Port Drive in Marina Del Rey, referring to cultural materials that have been uncovered in the area between these two streets. However, no specific sites are mentioned, and it does not appear that any formal records searches or field inventories were conducted. Study LA-2445 conducted a program of shovel testing at CA-LAn-1698, located to the southeast of the proposed Marina Del Rey Boat Launch Parking Area.

Current Survey Results (Marina Del Rey Boat Launch Parking Area)

Archaeology. The area is covered by an existing asphalt surface. No cultural resources were detected.

Built Environment. This area is an existing parking lot adjacent to the boat launch at the harbor at Marina Del Rey. There are no buildings or structures within the parking lot. The area is not historically sensitive, i.e. there are no older buildings within the immediate viewshed of the lot.

Area 5 – Dockweiler State Beach Parking Area

Topography, Soils, and Existing Conditions. This component consists of an existing asphalt-paved parking lot located atop Dockweiler State Beach, east of Vista Del Mar, north of the western extent of Imperial Highway, northwest of the proposed Grand Avenue Parking Area, and west of the proposed LAX Pershing Staging Area.

Previous Work. No known previous cultural resources studies or historical evaluations have been conducted within the proposed Dockweiler State Beach Parking Area. However, four previous cultural resource surveys have been conducted within one-quarter-mile (LA-3673, LA-3494, LA-125/4051, and Bissell 1995). Surveys LA-125/4051 and LA-3494 were conducted for the Hyperion Treatment Plant, located across Vista Del Mar to the southeast, with negative results. Survey LA-3673 was conducted along Imperial Highway to the southeast, also with negative results. Bissell's 1995 survey of the LAX property resulted in the recordation of numerous sites, including prehistoric site CA-LAn-2345 and historic site CA-LAn-2386/H, both located within one-quarter-mile of the proposed Dockweiler State Beach Parking Area. There are no previously recorded cultural resources located within the proposed Dockweiler State Beach Parking Area.

Current Survey Results (Dockweiler State Beach Parking Area).

Archaeology. The proposed Dockweiler State Beach Parking Area was surveyed by pedestrian inspection. No sites were detected within the proposed project component.

Built Environment. This area is an existing asphalt-paved parking lot. There are no buildings or structures within the parking lot. The area is not historically sensitive, i.e. there are no older buildings within the immediate viewshed of the lot.

Area 6 – Hyperion Parking Area

Topography, Soils, and Existing Conditions. This component consists of an existing asphalt-paved parking lot located atop Dockweiler State Beach, east of Vista Del Mar, and northwest of the Grand Avenue Parking Area. The Hyperion Treatment Plant is located directly across Vista Del Mar to the east.

Previous Work. No known previous cultural resources studies or historical evaluations have been conducted within the proposed Hyperion Parking Area. However, four previous cultural resource surveys have been conducted within one-quarter-mile (LA-3673, LA-3494, LA-125/4051, and Bissell 1995). Surveys LA-125/4051 and LA-3494 were conducted for the Hyperion Treatment Plant, located across Vista Del Mar to the southeast, with negative results. Survey LA-3673 was conducted along Imperial Highway to the east, also with negative results. Bissell's 1995 survey of the LAX property resulted in the recordation of numerous sites, including prehistoric site CA-LAn-2345, located within one-quarter-mile of the proposed Hyperion Parking Area. There are no previously recorded cultural resources located within the proposed Hyperion Parking Area.

Current Survey Results (Hyperion Parking Area)

Archaeology. The proposed Hyperion Parking Area was surveyed by pedestrian inspection. No cultural resources were detected within the proposed project component.

Built Environment. This area is an existing asphalt-paved parking lot. There are no buildings or structures within the parking lot. The area is not historically sensitive, i.e. there are no older buildings within the immediate viewshed of the lot.

Area 7 – Grand Avenue Parking Area

Topography, Soils, and Existing Conditions. This is an existing asphalt-paved parking lot located atop Dockweiler State Beach, east of Vista Del Mar, at the western extent of Grand

Avenue, and northwest of the proposed Chevron Marine Terminal Staging Area. No exposures of native surfaces were visible.

Previous Work. No known prior cultural resources studies have been conducted, nor are there any previously recorded cultural resources located within the proposed Grand Avenue Parking Area. However, surveys LA-125/4051 and LA-3494 were conducted for the Hyperion Treatment Plant, located directly across Vista Del Mar to the east. The results of these surveys were negative. No known prior historical evaluations have been conducted within the proposed Grand Avenue Parking Area.

Current Survey Results (Grand Avenue Parking Area)

Archaeology. The proposed Grand Avenue Parking Area was surveyed by pedestrian inspection. No cultural resources were detected within or adjacent to the proposed project component.

Built Environment. This area is an existing asphalt-paved parking lot. There are no buildings or structures within the parking lot. The area is not historically sensitive, i.e. there are no older buildings within the immediate viewshed of the lot.

Area 8 – Chevron Marine Terminal Staging Area

Topography, Soils, and Existing Conditions. The Chevron Marine Terminal Staging Area is located adjacent to the El Segundo Power Plant. The entire area is paved, except for one small ditch (10 m x 10 m diameter) that had been previously been excavated by Chevron. The area is flat, and there were no other exposures to examine, except for the open ditch.

Previous Work. No prior cultural resource surveys have been conducted within the Chevron Marine Terminal, nor are any previously recorded sites located within this area. No known previous historic evaluations have been conducted within the Chevron Marine Terminal, although the El Segundo Steam Generating Station to the south has been evaluated as part of the ESPR Project.

Current Survey Results (Chevron Marine Terminal Staging Area)

Archaeology. The survey did not detect any new sites on the property. One fragment of possibly culturally fire affected rock was noted in the ditch backfill, but the origins of this are completely uncertain. There is a chance that it is cultural in origin, possibly prehistoric. While it is potentially prehistoric, the rock was in a secondary deposit and it may have been produced from a modern beach campfire.

Built Environment. The proposed Chevron Marine Terminal Staging Area was investigated in the field by JRP Historical Consultants. There are no buildings or structures at this site, except for pipeline bulkheads associated with the Chevron refinery. This largely vacant parcel is sited near three major industrial plants. It is across Vista del Mar from the huge Chevron Oil Refinery and is regarded as part of that plant. It is due north of the El Segundo Generating Station, and near the Scattergood steam plant of the Los Angeles Department of Water and Power. The Marine Terminal is not visible from the Chevron Oil Refinery, nor is the refinery visible from it. The area is visible from the existing El Segundo Generating Station, a property that was found not to be historically significant after evaluation (see AFC Appendix K). The Marine Terminal site is also visible from the Scattergood plant of LADWP. This plant has not been evaluated for historic significance. The first unit was installed in 1958, making it younger than the nearby El Segundo Generating Station, which was found not be historically significant by JRP Historical Consultants in October 2000 (see AFC Appendix K).

5.7.2 Environmental Consequences

With few exceptions, the potential effects of any project upon cultural resources are always evaluated under the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA). The El Segundo Power Redevelopment Project (ESPR Project) currently does not require an assessment with respect to the requirements of NEPA because the proposed facilities do not cross Federal lands. If this scenario prevails, this AFC will serve as CEQA environmental documentation.

In the event of Federal involvement, the AFC for the ESPR Project would require compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, set forth at 36 CFR 800. In any event, the California State and Federal criteria for evaluating cultural resources are consistent and generally interchangeable, and therefore application of one set of cultural resources evaluation criteria essentially conforms with the other.

State Level Mandates

Cultural resources include archaeological and historical objects, sites and districts, historic buildings and structures, cultural landscapes, and sites and resources of concern to local Native American and other ethnic groups. All cultural resources work conducted for the ESPR Project is consistent with compliance procedures set forth in the California Environmental Quality Act (CEQA), Sections 15064.5 and 15126.4, and, in the case of Federal involvement, Section 106 of the National Historic Preservation Act (NHPA), set forth at 36 Code of Federal Regulations (CFR) 800.

In considering impact significance under CEQA or NHPA, the significance of the resource itself must first be determined. At the State level, consideration of significance as an “...important archaeological resource” is measured by cultural resource provisions considered under CEQA Sections 15064.5 and 15126.4, and the draft criteria regarding resource eligibility to the California Register of Historic Resources (CRHR).

Generally, under CEQA an historical resource (these include built-environment historic and prehistoric archaeological resources) is considered significant if it meets the criteria for listing on the CRHR. These criteria are set forth in Section 15064.5, and defined as any resource that:

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

Section 15064.5 of CEQA also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under PRC 5097.98.

Impacts to “unique archaeological resources” and “unique paleontological resources” are also considered under CEQA, as described under PRC 21083.2. A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that—without merely adding to the current body of knowledge—there is a high probability that it meets one of the following criteria:

1. The archaeological artifact, object, or site contains information needed to answer important scientific questions and there is a demonstrable public interest in that information; or
2. The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
3. The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource indicates an archaeological artifact, object, or site that does not meet the above criteria. Impacts to non-unique archaeological resources and resources which do not qualify for listing on the CRHR receive no further consideration under CEQA.

Under CEQA Section 15064.5, a project potentially would have significant impacts if it would cause substantial adverse change in the significance of:

1. An historical resource (i.e. a cultural resource eligible to the CRHR), or
2. An archaeological resource (defined as a unique archaeological resource which does not meet CRHR criteria),
3. A unique paleontological resource or unique geologic feature (i.e. would directly or indirectly destroy a site)
4. Human remains (i.e. would disturb or destroy burials).

A non-unique archaeological or paleontological resource is given no further consideration, other than the simple recording of its existence by the lead agency.

Criteria for eligibility for the CRHR are very similar to those that qualify a property for the NRHP, which is the significance assessment tool used under the NHPA. The criteria of the NRHP apply when a project has federal involvement. Note that a property that is eligible for the NRHP is also eligible to the CRHR. On projects with federal involvement, impacts to significant resources are assessed and addressed under the procedures of Section 106 of the NHPA, set forth at 36 CFR 800. At present, this project has no federal involvement.

All resources encountered during the mitigation and monitoring phases of the ESPR Project, with the exception of isolate artifacts and isolate features that appear to lack integrity or data potential, will be evaluated for significance vis-à-vis CRHR and CEQA criteria described above. If a resource is found to be significant, then it will be subject to avoidance through alterations in project design when feasible. In the event that avoidance of cultural resources is not possible via project design modifications, appropriate mitigation data recovery, in accordance with this report and the CEC, will be conducted.

The five previously recorded sites within the ESPR Project APE or adjacent study areas have not been formally evaluated for significance. For purposes of analysis all cultural resources, with the exception of isolate artifacts that appear to lack integrity or data potential, are treated as potentially significant until formally evaluated.

Federal Level Mandates

The legal frameworks for addressing cultural resources at the federal and state level are generally equivalent. The four criteria for evaluation established by the NRHP, listed below, are identified at 36 CFR 60.4 and are in accordance with the regulations outlined in 36 CFR 800 established by the Advisory Council on Historic Preservation (ACHP).

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. Resources that are associated with events that have made a significant contribution to the broad patterns of our history; or
2. Resources that are associated with the lives of persons significant in our past; or
3. Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
4. Resources that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Hence, these evaluating criteria are used to help determine what properties should be considered for protection from destruction or impairment (36 CFR 60.2).

Although the project is not considered a Federal undertaking at this time, the legal framework for addressing cultural resources at the Federal and State level are generally equivalent and are used somewhat interchangeably herein. If a U.S. Army Corps of Engineers (USACE) 404 permit is required, compliance with Section 106 of the NHPA may be invoked for those portions of the project subject to such a permit. If utilization of the proposed LAX Pershing Staging/Parking Area requires coordination with the Federal Aviation Administration (FAA), compliance with Section 106 of the NHPA may be invoked for these portions of the project.

As noted above, impacts to identified cultural resources must be considered if the resource is an “important” or “unique archaeological resources,” under the provisions of CEQA Sections 15064.5 and 15126.4 and the eligibility criteria, or a “historic property” as defined in the NHPA and its implementing regulations. In many cases, determination of a resource’s eligibility can be made only through extensive research and archaeological testing. Because

this may be costly and time-consuming, it is recommended that whenever possible, all cultural resources be avoided to the maximum extent feasible.

5.7.2.1 Power Plant Site

No impacts to archaeological resources are anticipated at the Power Plant Site. The plant has been evaluated by the project architectural historian as a built environment resource and assessed as non-significant. Therefore, the proposed modifications and partial destruction of the plant are not considered significant impacts.

5.7.2.2 Pipeline Routes

Route 1 – Water Supply Lines. No impacts to known archaeological resources are anticipated along the potable and reclaimed water line routes (and alternatives), however unidentified buried cultural resources could potentially be present. It does not appear that construction of the proposed potable water line will result in significant impacts to built environment resources beyond temporary and less-than-significant noise and visual impacts.

Route 2 – Sanitary Discharge Line. No impacts to known archaeological resources are anticipated along the sanitary discharge line, however unidentified buried cultural resources could potentially be present. No impacts to built environment resources are anticipated.

Route 3 – Aqueous Ammonia Supply Line. No impacts to known archaeological resources or built environment resources are anticipated along the aqueous ammonia supply line, however unidentified buried cultural resources could potentially be present.

5.7.2.3 Areas

Area 1 – Kramer Staging Area. The area was subjected to pedestrian archaeological survey, with negative results. The proposed equipment staging area will be confined to the existing paved area. The foundry foundations recorded in the field are located outside of the project APE. There is no potential for disturbance of archaeological resources. However, should subsurface disturbance be required below the asphalt, such activity could result in disturbance to previously unidentified buried cultural resources. No impacts to built environment resources are anticipated.

Area 2 – Federal Express Staging/Parking Area. The area was subjected to pedestrian archaeological survey, with negative results. The area has been extensively disturbed. There is a low potential for disturbance of known archaeological resources. However, should subsurface disturbance be required below the asphalt, such activity could result in

disturbance to previously unidentified buried cultural resources. No impacts to built environment resources are anticipated.

Area 3 – LAX Pershing Staging/Parking Area. No impacts to archaeological or built environment resources are anticipated.

Area 4 – Marina Del Rey Boat Launch Parking Area. This proposed project component (an existing paved parking lot) is located adjacent to a known Native American site (CA-LAn-47) that has yielded an abundance of *in situ* artifacts and related Native American village remains, including burials. If there is no subsurface disturbance at this location, then there should be no effect on cultural resources.

Area 5 – Dockweiler State Beach Parking Area. No impacts to archaeological or built environment resources are anticipated.

Area 6 – Hyperion Parking Area. No impacts to archaeological or built environment resources are anticipated.

Area 7 – Grand Avenue Parking Area. No impacts to archaeological or built environment resources are anticipated.

Area 8 – Chevron Marine Terminal Staging Area. The fire-affected rock discovered in this area was not recorded as an isolated archaeological find because it was in a secondary . It is also not clear whether it was archaeological or modern. Normally, isolate finds do not qualify as significant under CEQA or the NRHP. However, this does not preclude the potential for *in situ* unknown cultural resources to be located within the limits of this project component. No impacts to built environment resources are anticipated.

5.7.2.4 Direct, Indirect and Cumulative Impacts

Direct Impacts. Direct impacts are typically associated with construction activity and have the potential to immediately alter, diminish or destroy all or part of the character and quality of historic and archaeological resources. The construction, operation and maintenance of the ESPR Project are not expected to result in significant new direct impacts to the known cultural resource base. Previously undiscovered cultural resources could be affected by construction-related activities. Provisions for such an occurrence are provided in Section 5.7.3.2.

Indirect Impacts. Indirect impacts as defined in the Caltrans Guidance for Consultants (Caltrans 1991, 5-5,6) “...are related to the primary consequences of the completed project and may be several steps removed from the project in the chain of cause and effect. Indirect

impacts can normally be expected to cause change in the character or use of built environment by the introduction of undesirable auditory or visual intrusions. Noise and vibration activity itself may be considered indirect effects...”. It is important to note that the Caltrans guidance defines certain categories of projects that have *virtually no potential for affecting historic resources*, which they define as projects with a “minimal APE”. These undertakings typically include “...repair, maintenance, or minor alteration of existing streets, sidewalks, gutters ... and similar facilities (Caltrans 1991: 5-2,3). The construction, operation and maintenance of the ESPR Project are not expected to result in significant new indirect impacts to the built environment cultural resource base. The only project components that are adjacent to potentially significant built environment resources are the water lines. Because construction activities will be confined to the existing paved roadways, it falls within the definition of a minimal APE. The short-term effects associated with their installation are not expected to have an effect on the adjoining properties as these roadways are already subject to daily traffic use and periodic maintenance activities. The proposed action appears to have no potential for adversely affecting these built environment resources.

Cumulative Impacts. Section 5.20 describes past, present and reasonably foreseeable projects that could affect the same resources as the ESPR Project. The reader is referred to that section for details regarding each of these projects. The projects identified are listed below:

- LAX Master Plan EIR/EIS – City of Los Angeles, LAWA, FHWA
- Continental City Project - City of Los Angeles, LAWA
- LAX Northside Project – City of Los Angeles, LAWA
- Offices – City of El Segundo
- EA #50 – City of El Segundo
- Hotel/Office – City of El Segundo
- Widening of Aviation Boulevard – City of El Segundo
- Remax Building – City of Manhattan Beach
- Former Data General Building – City of Manhattan Beach
- Expo Design Center (Home Depot) – City of Redondo Beach
- Hawthorne Gateway Redevelopment Project – City of Hawthorne
 - Auto Nation USA
 - Avres Group Hotel
 - Proposed Retail
- Mar Ventures – City of Hawthorne
- Residential – City of Hawthorne
- Hawthorne Airport– City of Hawthorne
- Hawthorne Ocean Gate Redevelopment Project – City of Hawthorne.

Each of these projects was assessed in conjunction with the ESPR to ascertain the potential contribution of the ESPR to cumulative impacts to the cultural resource base. Based on this analysis it has been concluded that cumulative impacts from the ESPR Project on the regional cultural resource base are limited because implementation of the mitigation measures proposed below for cultural resources will reduce project-related impacts to a less than significant level. The archaeological resources identified near this project appear to derive their potential significance from their potential to yield information important in prehistory. Although no archaeological sites have been identified that would be affected by the proposed project, in the event that such a site were encountered, data recovery at significant sites and/or site avoidance ensures that the information content of significant archaeological resource sites will be retained, and thus, limits the contribution of cumulative impacts of the ESPR Project on the regional cultural resources base for this project. Likewise, no potentially significant built-environment resources have been identified that would be directly or indirectly impacted by the proposed project and thus there would be no contribution of cumulative impacts from the ESPR Project on the regional built environment cultural resources base.

5.7.3 Stipulated Conditions

As a means of cooperating with the CEC and establishing a conciliatory relationship, and an open efficient AFC process that allows the Commission to utilize its resources in the most efficient manner possible, ESPR expresses a willingness to stipulate to and accept the following CEC standard general conditions as promulgated by the CEC that apply to the issue area of Cultural and Historical Resources.

CUL-1: Curation of Significant Cultural Resource Materials. The project owner shall ensure the recovery, preparation for analysis, identification and inventory, the preparation for curation and the delivery for curation of all significant cultural resource materials encountered and collected during mapping and mitigation activities.

Verification: The project owner shall maintain in its compliance files, copies of signed contracts or agreements with the designated cultural rescue specialist and other qualified research specialists. These specialists will ensure the necessary recovery, preparation for analysis, identification and inventory, and preparation for curation of all significant cultural resource materials collected during monitoring, data recovery, mapping, and mitigation activities for the project. The project owner shall keep these files on-site and available for periodic audit by the CPM, for a period of at least two years after completion of the approved Final Cultural Resources Report.

CUL-2: Preliminary Cultural Resources Report. The project owner shall ensure preparation of a Preliminary Cultural Resources Report following completion of data recovery and site mitigation work.

Protocol: The proposed scope of work shall include (but not be limited to): a. discussion of any analysis to be conducted on recovered cultural resource materials; b. discussion of possible results and findings, c. proposed research questions which may be answered or raised by analysis of the data recovered from the project; and d. an estimate of the time needed to complete the analysis of recovered cultural resource materials and prepare the Cultural Resources Report.

Verification: The project owner shall ensure that the designated cultural resources specialist prepares the proposed scope of work within 90 days following completion of the data recovery and site mitigation work. Within 7 days after completion of the proposed scope of work, the project owner shall submit it to the CPM for review and written approval.

CUL-3: Final Cultural Resources Report. The project owner shall ensure preparation of a Final Cultural Resources Report following completion of data recovery and site mitigation work.

Protocol: The Cultural Resources Report shall include (but not be limited to) the following for all projects:

1. Description of pre-project literature search, surveys, and any testing activities
2. Maps of showing areas surveyed or tested
3. Description of any monitoring activities
4. Maps of any areas monitored ,
5. Conclusions and recommendations.

For projects in which cultural resources were encountered, include the items specified under a of CUL-2 and also provide:

1. Site and isolate records and maps
2. Description of testing for, and determinations of, significance and potential eligibility
3. Research questions answered or raised by the data from the project.

For projects regarding which cultural resources were recovered, include the items specified under a and b of CUL-2 and also provide:

1. Descriptions (including drawings and/or photos) of recovered cultural materials
2. Results and findings of any special analyses conducted on recovered cultural resource materials
3. An inventory list of recovered cultural resource materials
4. Name and location of the public repository receiving the recovered cultural resources for curation.

Verification: The project owner shall ensure that the designated cultural resources specialist completes the Cultural Resources Report within 90 days following completion of the analysis of the recovered cultural materials. Within 7 days after completion of the report, the project owner shall submit the Cultural Resources Report to the CPM for review and written approval.

CUL-4: Provide Final Cultural Resources Report to CPM. The project owner shall provide the CPM with an original copy of the Final Cultural Resources Report and other copies necessary to submit to the public institution receiving the recovered data and materials for curation.

Protocol: The copies of the Cultural Resource Report to be sent to the curating repository, the SHPO, and the regional information center(s) shall include the following (based on the applicable scenario (a, b or c) set forth CUL-2: a. originals or original-quality copies of all text; b. originals of any topographic maps showing site and resource locations; c. originals or original-quality copies of drawings of significant or diagnostic cultural resource materials found during pre-construction surveys or during project-related monitoring, data recovery, or mitigation; and d. photographs of the site(s) and the various cultural resource materials recovered during project monitoring and mitigation and subjected to post-recovery analysis and evaluation. The project owner shall provide the curating repository with a set of negatives for all of the photographs.

Verification: Within 30 days after receiving approval of the Cultural Resources Report, the project owner shall provide to the CPM documentation that the report has been sent to the public repository receiving the recovered data and materials for curation, the SHPO, and the appropriate archaeological information center(s). For the life of the project the project owner shall maintain in its compliance files copies of all documentation related to the filing of the CPM-approved Cultural Resources Report with the public repository receiving the recovered data and materials for curation, the SHPO, and the appropriate archaeological information center(s).

CUL-5: Delivery of Collected Cultural Materials. Within 30 days following the Final Cultural Resources Report with the CPM, etc., the project owner shall deliver for curation all cultural resource materials collected during data recovery and mitigation for the project.

Verification: The project owner shall ensure that all recovered cultural resource materials are delivered for curation within 30 days after providing the CPM-approved Cultural Resource Report to the public repository receiving the recovered data and materials, to the SHPO, and to the appropriate archaeological information center(s).

For the life of the project the project owner shall maintain in its project history or compliance files, copies of signed contracts or agreements with the public repository to which the project owner has delivered for curation all cultural resource materials collected during data recovery and mitigation for the project.

CUL-6: Designated Cultural Resource Specialist and Mitigation Team Members. Prior to construction, the project owner shall provide the CEC CPM with the name(s) and qualifications of its designated cultural resource specialist and mitigation team members.

Protocol: The statement of qualifications for the designated cultural resource specialist shall include all information needed to demonstrate that the specialist meets the minimum qualifications specified in the US Secretary of Interior Guidelines, as published by the State Office of Historic Preservation (1983). The minimum qualifications include the following:

1. A graduate degree in anthropology, archaeology, California history, cultural resource management, or a comparable field
2. At least three years of archaeological resource mitigation and field experience in California
3. At least one year of experience in each of the following areas:
 - Leading archaeological resource field surveys
 - Leading site and artifact mapping, recording, and recovery operations
 - Marshalling and use of equipment necessary for cultural resource recovery and testing
 - Preparing recovered materials for analysis and identification
 - Determining the need for appropriate sampling and/or testing in the field and in the lab

- Directing the analyses of mapped and recovered artifacts
- Completing the identification and inventory of recovered cultural resource materials
- Preparing appropriate reports to be filed with the receiving curation repository, the SHPO, all appropriate regional archaeological information center(s).

The statement of qualifications for the designated cultural resource specialist shall include:

1. A list of specific projects on which the specialist has previously worked
2. The role and responsibilities of the specialist for each project listed
3. The names and phone numbers of contacts familiar with the specialist's work on these referenced projects.

Verification: At least 90 days prior to the start of project construction, the project owner shall submit the name and statement of qualifications of its designated cultural resource specialist to the CPM for review and written approval. At least 10 days but no more than 30 days prior to the start of construction, the project owner shall confirm in writing to the CPM that the approved designated cultural resource specialist will be available at the start of construction. And, furthermore, that the cultural resource specialist is prepared to implement the cultural resource Conditions of Certification. At least 10 days prior to the termination or release of a designated cultural resource specialist, the project owner shall obtain CPM approval of the replacement specialist by submitting to the CPM the name and resume of the proposed new designated cultural resource specialist.

CUL-7: Provision of Maps and Drawings. Prior to construction, the project owner shall provide the designated cultural specialist and the CPM with maps and drawings for the project.

Verification: At least 75 days prior to the start of construction on the project and linear facilities, the project owner shall provide the designated cultural resource specialist and the CPM with final drawings and site layouts for each project facility and maps at appropriate scale(s) for all areas potentially affected by project construction. If the designated cultural resource specialist requests enlargements or strip maps for linear facility routes, the project owner shall also provide a set of these maps to the CPM at the same time that they are provided to the specialist.

CUL-8: Draft Cultural Resources Monitoring and Mitigation Plan. Prior to construction, the designated cultural specialist shall prepare a draft Cultural Resources Monitoring and

Mitigation Plan. The Cultural Resources Monitoring and Mitigation Plan shall include, but not be limited to, the following elements and measures:

- a. A proposed research design that includes a discussion of questions that may be answered by the mapping, data and artifact recovery conducted during monitoring and mitigation activities, and by the post-construction analysis of recovered data and materials.
- b. A discussion of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the pre-construction, construction, and post-construction analysis phases of the project.
- c. Identification of the person(s) expected to perform each of the tasks and description of the mitigation team organizational structure and the inter-relationship of team roles and responsibilities. Specification of the qualifications of any professional team members.
- d. A discussion of the need for Native American observers or monitors, the procedures to be used to select them, the areas or post-mile sections where they will be needed, and their role and responsibilities.
- e. A discussion of measures such as flagging or fencing, to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during construction and/or operation, and identification of areas where these measures are to be implemented. The discussion shall address how these measures will be implemented prior to the start of construction and how long they will be needed to protect the resources from project-related effects.
- f. A discussion of where monitoring of project construction activities is deemed necessary by the designated cultural resource specialist. The specialist will determine the size or extent of the areas where monitoring is to occur and will establish the percentage of the time that the monitor(s) will be present. The areas to be monitored shall include the power plant site, the construction lay-down area, the natural gas pipeline route, and the 230 kV electric transmission line route.
- g. A discussion of the requirement that all cultural resources encountered will be recorded and mapped (may include photos) and all significant or diagnostic resources will be collected for analysis and eventual curation into a retrievable storage collection in a public repository or museum that meets the US Secretary of Interior standards and requirements for the curation of cultural resources.

- h. A discussion of the availability and the designated specialist's access to equipment and supplies necessary for site mapping, photographing, and recovering any cultural resource materials encountered during construction.
- i. Identification of the public institution that has agreed to receive any data and cultural resources recovered during project-related monitoring and mitigation work. Discussion of any requirements, specifications, or funding needed for the materials to be delivered for curation and how they will be met. Also include the name and phone number of the contact person at the institution.

Verification: At least 60 days prior to the start of construction on the project, the project owner shall provide the Cultural Resources Monitoring and Mitigation Plan, prepared by the designated cultural resource specialist, to the CPM for review and written approval.

CUL-9: Pre-construction Reconnaissance and Staking. Prior to construction, the project owner shall conduct a pre-construction reconnaissance and staking in all areas expected to be affected by construction and operation of the project and its associated linear facilities.

Verification: Throughout the project construction period, the project owner shall ensure that the daily log and weekly summaries are available for periodic audit by the CPM. Upon request by the CPM, the project owner shall provide specified weekly summaries to the CPM.

CUL-10: Employee Training Program. Prior to construction, the designated cultural resource specialist shall prepare an employee training program. The program shall be submitted to the CEC CPM. The training program shall discuss the potential to encounter cultural resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources.

The training program shall also include the set of resource reporting procedures and work curtailment procedures that workers are to follow if previously unknown cultural resources are encountered during project activities. The training program shall be presented by the designated cultural resource specialist or qualified individual(s) approved by the CPM and may be combined with other training programs prepared for biological resources, paleontological resources, hazardous materials, or any other areas of interest or concern.

Verification: At least 60 days prior to the start of construction on the project, the project owner shall submit to the CPM for review and written approval, the proposed employee training program, the set of reporting procedures, and the work curtailment procedures that the workers are to follow if previously unknown cultural resources are encountered during

construction. The project owner shall provide the name and resume of the individual(s) performing the training.

CUL-11: Training Regarding Operation of Ground Disturbing Equipment. Prior to and throughout construction, the cultural resource specialist shall provide training to all new employees, project managers, construction supervisors, and workers who operate ground-disturbing equipment.

Verification: Within 7 days after the start of construction, the project owner shall provide the CPM with documentation that the designated cultural resources trainer(s) has/have provided to all project managers, construction supervisors, and workers hired before the start of construction the CEC-approved cultural resources training and the set of reporting and work curtailment procedures.

In each Monthly Compliance Report after the start of construction, the project owner shall provide the CPM with documentation that the designated cultural resource trainer(s) has/have provided to all project managers hired in the month to which the report applies the CPM-approved cultural resources training and the set of reporting and work curtailment procedures.

CUL-12: Weekly Project Activity Report to Designated Cultural Resource Specialist. Throughout the project construction period, the project owner shall provide the designated cultural resource specialist with a current schedule of anticipated weekly project activity and a map indicating the area(s) where construction will occur.

Verification: At least 10 days prior to the start of construction involving ground-disturbing activities, and in each monthly compliance report, the project owner shall provide the CPM with copies of the schedules and maps provided to the designated cultural resource specialist. The project owner shall notify the CPM when all ground disturbing activities, including landscaping, are completed.

CUL-13: Presence of the Designated Cultural Resource Specialist On-Site. The designated cultural resource specialist shall be present at the construction site at all times when construction-related grading, excavation, trenching an/or auguring occurs in areas of previously recorded archaeological sites.

Protocol: If the designated cultural resource specialist determines that full-time monitoring is not necessary in certain portions of the project area or along portions of the linear facility routes, the designated specialist shall notify the project owner and the CPM of the changes. The designated cultural resource specialist shall use milestone markers and boundary stakes

placed by the project owner to identify areas where monitoring is being reduced or is no longer deemed necessary.

Verification: Throughout the project construction period the project owner shall include in the Monthly Compliance Reports to the CPM copies of the weekly summary reports prepared by the designated cultural resource specialist regarding project-related cultural resource monitoring.

CUL-14: Encounter of Sensitive Resources. The designated cultural resource specialist or their delegated monitor shall have the authority to halt or redirect construction if potentially significant previously unknown cultural resource sites or materials are encountered during project-related grading, auguring, excavation, and/or trenching. If such resources are found and the specialist determines that they are not significant, the specialist may allow construction to resume. The project owner shall notify the CPM of the find as set forth in the Verification section.

If such resources are found and the specialist determines that they are or may be significant, the halting or redirection of construction shall remain in effect until:

- a. the designated cultural resources specialist has notified the CPM of the find and the work stoppage
- b. the specialist, the project owner, and the CPM have conferred and determined what, if any, data recovery or other mitigation is needed
- c. any necessary data recovery and mitigation has been completed.

The designated cultural resources specialist, the project owner, and the CPM shall confer within five working days of the notification of the CPM to determine what, if any, data recovery or other mitigation is needed.

If data recovery or other mitigation measures are required, the designated cultural resource specialist and team members shall monitor construction activities and implement data recovery and mitigation measures, as needed.

All required data recovery and mitigation shall be completed expeditiously unless all parties agree to additional time.

Verification: At least 30 days prior to the start of construction, the project owner shall provide the CPM with a letter confirming that the designated cultural resources specialist has the authority to halt construction activities in the vicinity of a cultural resource find.

For any cultural resource encountered that the specialist determines is or may be significant, the project owner shall notify the CPM as soon as possible.

For any cultural resource encountered that the specialist determines is not significant, the project owner shall notify the CPM within 72 hours after the find.

5.7.4 Mitigation Measures

Mitigation under CEQA Sections 15064.5 and 15126.4 must address impacts *to the values* for which a cultural resource is considered important. To mitigate adequately, it must therefore be determined what elements make a site eligible for the CRHR and/or NRHP. As noted previously and detailed below, the first line of mitigation is complete avoidance of all cultural resources when feasible. The standard conditions, discussed and listed above, in Section 5.7.3, provide the measures needed to ensure avoidance of sites within the corridors, and measures to avoid indirect impacts to nearby sites are described below.

5.7.4.1 Specific Mitigation Measures

General mitigation measures have been described above. Specific actions recommended at each project facility are described below. Table 5.7-9 is a summary table that describes by project component the results of the records search, survey and an assessment of potential impacts and mitigation.

5.7.4.1.1 Power Plant Site. Pursuant to standard condition CUL-13, listed above in Section 5.7.3, an archaeological monitor should be present to inspect initial grading and excavation activity.

5.7.4.1.2 Pipeline Routes.

Route 1 – Water Supply Lines. Pursuant to standard condition CUL-13, listed above in Section 5.7.3, an archaeological monitor should be present to inspect initial grading and excavation activity. No mitigation measures will be required for built environment resources, as the APE will be confined to a 50-foot-wide construction corridor within existing city streets.

Route 2 – Sanitary Discharge Line. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect trenching and excavation activity. No additional mitigation measures are required in this location unless previously undiscovered cultural resources are detected during construction.

Route 3 – Aqueous Ammonia Supply Line. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect trenching and excavation activity. No additional mitigation measures are required in this location unless previously undiscovered cultural resources are detected during construction.

5.7.4.1.3 Areas.

Area 1 – Kramer Staging Area. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect trenching and excavation activity, if such subsurface disturbance became required. No additional mitigation measures are required in this location unless previously undiscovered cultural resources are detected during construction.

TABLE 5.7-9

**CULTURAL RESOURCES BY PROJECT COMPONENT:
RECORDS SEARCH RESULTS, SURVEY RESULTS, IMPACTS AND MITIGATION**

Project Component	Previous Studies Conducted Within or Adjacent to APE	Previously Recorded Cultural Resources Within APE.	Previously Recorded Cultural Resources Within Adjacent Study Areas (Outside APE)	Current Survey Results: Archaeological Resources	Current Survey Results: Historic Built Environment Resources	Potential Impacts to Cultural Resources (Direct, Indirect, or Cumulative)	Mitigation Recommendations
Power Plant Site	LA-1625	None	None	Negative	All structures evaluated: recommended ineligible for listing in NRHP and not an important historic resource under CEQA.	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Route 1 – Water Supply Lines	LA-125/4051, LA-3494	None	None	Negative (entire route paved)	58 buildings identified within zone of alternative water line routes that appear to be 50+ years old.	None anticipated (pipeline construction will occur within existing street, buildings are outside APE).	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Route2 – Sanitary Discharge Line	LA-1625	None	None	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 1 – Kramer Staging Area	LA-2950	None	None	Negative (No resources within APE, however adjacent foundry foundations outside APE recorded.)	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 1 – Kramer Staging Area	LA-2950	None	None	Negative (No resources within APE, however adjacent foundry foundations outside APE recorded.)	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.

**TABLE 5.7-9
(CONTINUED)**

Project Component	Previous Studies Conducted Within or Adjacent to APE	Previously Recorded Cultural Resources Within APE.	Previously Recorded Cultural Resources Within Adjacent Study Areas (Outside APE)	Current Survey Results: Archaeological Resources	Current Survey Results: Historic Built Environment Resources	Potential Impacts to Cultural Resources (Direct, Indirect, or Cumulative)	Mitigation Recommendations
Area 2 – Federal Express Staging/Parking Area	None	None	None	Pending	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 3 – LAX Pershing Staging/Parking Area	LA-96, Raschke & Bissell 1995, LA-309, LA-3673, LA-125/4051, LA-3494	None	CA-LAn-2345 (P-19-002345), CA-LAn-2386/H (P-19-002386)	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 4 – Marina Del Rey Boat Launch Parking Area	LA-3495, LA-2673, LA-3583, LA-2669, LA-2558, LA-1975, LA-3898, LA2445	None	CA-LAn-47 (P-19-000047), CA-LAn-1698 (P-19-001698)	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 1 – Kramer Staging Area	LA-2950	None	None	Negative (No resources within APE, however adjacent foundry foundations outside APE recorded)	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 2 – Federal Express Staging/Parking Area	None	None	None	Pending	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.

**TABLE 5.7-9
(CONTINUED)**

Project Component	Previous Studies Conducted Within or Adjacent to APE	Previously Recorded Cultural Resources Within APE.	Previously Recorded Cultural Resources Within Adjacent Study Areas (Outside APE)	Current Survey Results: Archaeological Resources	Current Survey Results: Historic Built Environment Resources	Potential Impacts to Cultural Resources (Direct, Indirect, or Cumulative)	Mitigation Recommendations
Area 3 – LAX Pershing Staging/Parking Area	LA-96, Raschke & Bissell 1995, LA-309, LA-3673, LA-125/4051, LA-3494	None	CA-LAn-2345 (P-19-002345), CA-LAn-2386/H (P-19-002386)	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 4 – Marina Del Rey Boat Launch Parking Area	LA-3495, LA-2673, LA-3583, LA-2669, LA-2558, LA-1975, LA-3898, LA2445	None	CA-LAn-47 (P-19-000047), CA-LAn-1698 (P-19-001698)	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 5 - Dockweiler State Beach Parking Area	LA-3673, LA-3494, LA-125/4051, Raschke & Bissell 1995	None	CA-LAn-2345 (P-19-002345), CA-LAn-2386/H (P-19-002386)	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 6 - Hyperion Parking Area	LA-3673, LA-3494, LA-125/4051, Raschke & Bissell 1995	None	CA-LAn-2345 (P-19-002345),	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.
Area 7 – Grand Avenue Parking Area	LA-3494, LA-125/4051	None	None	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.

**TABLE 5.7-9
(CONTINUED)**

Project Component	Previous Studies Conducted Within or Adjacent to APE	Previously Recorded Cultural Resources Within APE.	Previously Recorded Cultural Resources Within Adjacent Study Areas (Outside APE)	Current Survey Results: Archaeological Resources	Current Survey Results: Historic Built Environment Resources	Potential Impacts to Cultural Resources (Direct, Indirect, or Cumulative)	Mitigation Recommendations
Area 8 – Chevron Marine Terminal Staging Area	JRP 2000	None	None	Negative	Negative	None anticipated	Archaeological monitoring of all subsurface disturbance. No mitigation for built environment.

The foundry foundations located to the southwest of the proposed Kramer Staging Area (outside the project APE) have been recorded but not formally evaluated. Absent formal evaluation, these resources will be considered to be potentially significant. If it is determined by the Applicant, prior to use, that the area containing the foundry foundations is required for additional equipment staging space, this resource would be subjected to formal evaluation pursuant to the NRHP and CRHR. If found to be a significant resource, appropriate mitigation measures would have to be developed in concert with the CEC and the Applicant prior to use. This project is outside the project APE, however, and so such are not indicated

Area 2 – Federal Express Staging/Parking Area. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect trenching and excavation activity, if such subsurface disturbance became required. No additional mitigation measures are required in this location unless previously undiscovered cultural resources are detected during construction.

Area 3 – LAX Pershing Staging/Parking Area. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect trenching and excavation activity, if such subsurface disturbance became required. No additional mitigation measures are required in this location unless previously undiscovered cultural resources are detected during construction.

Area 4 – Marina Del Rey Boat Launch Parking Area. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect trenching and excavation activity, if such subsurface disturbance became required. No additional mitigation measures are required in this location unless previously undiscovered cultural resources are detected during construction. Furthermore, it is recommended that a Native American monitor be present during such activity. If there is subsurface disturbance, and cultural resources are detected, then the following approach is recommended:

1. A focused archaeological testing program should be undertaken to determine the nature and extent of subsurface cultural deposits within the project APE.
2. If subsurface deposits are present within the APE and found to be significant and cannot be avoided then the site should be subject to a targeted data recovery program developed in concert with the CEC and implemented to reduce significant impacts to a less than significant level.
3. A Native American monitor should be present during the testing and possible data recovery program.

These actions are recommendations fall within the scope of the standard conditions and thus no additional mitigation or conditions are required:

Area 5 – Dockweiler State Beach Parking Area. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect initial grading and excavation, if such construction activities are required at this location.

Area 6 – Hyperion Parking Area. Pursuant to standard conditions CUL-13, an archaeological monitor should be present to inspect initial grading and excavation, if such construction activities are required at this location

Area 7 – Grand Avenue Parking Area. Pursuant to standard conditions CUL-13, an archaeological monitor should be present to inspect initial grading and excavation, if such construction activities are required at this location.

Area 8 – Chevron Marine Terminal Staging Area. Pursuant to standard condition CUL-13, an archaeological monitor should be present to inspect all grading and excavation activities in the Marine Terminal Facility, especially near the previously exposed ditch.

5.7.4.2 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts to cultural resources have been identified to date. Implementation of the specific conditions described above in Section 5.7.3 will effectively reduce potential significant adverse impacts to a less than significant level.

5.7.5 LORS Compliance: Applicable Laws, Ordinances, Regulations, and Standards

See Table 5.7-10 at the end of this section.

5.7.5.1 Federal

National Historic Preservation Act of 1966 (NHPA), as amended; 16 USC § 470 et. seq.; Section 106; 36 CFR 800. The code includes provisions for protection of significant archaeological and historical resources. Procedures for dealing with previously unsuspected cultural resources discovered during construction are identified in 36 CFR 800 (for implementing § 106 processes).

The administering agency for the above authority is the State Historic Preservation Officer (SHPO) and the federal lead agency. Federal involvement has not yet been identified for this project, thus a lead Federal agency would be identified at the time the project the project is determined to be a “Federal undertaking”.

National Environmental Policy Act of 1968 (NEPA), as amended; USC § 4321 4327; 40 CFR 1502.25. The Act requires analysis of potential environmental impacts to cultural resources. Federal involvement has not yet been identified for this project, thus a lead Federal agency would be identified at the time the project is determined to be a “Federal undertaking”.

Federal Antiquities Act of 1906, 16 USC 432, 433. This Act serves as the basis for legislation regarding the preservation of cultural properties on federal lands, and provides for a permit process for scholarly use of properties, and misdemeanor-level penalties. Federal involvement has not yet been identified for this project, thus a lead Federal agency would be identified at the time the project the project is determined to be a “Federal undertaking”.

Executive Order 11593 directs federal agencies to inventory cultural properties under their jurisdiction, to nominate properties to the NRHP, and to use due caution until the inventory and nomination processes are completed. Federal involvement has not yet been identified for this project, thus a lead Federal agency would be identified at the time the project the project is determined to be a “Federal undertaking”.

Archeological and Historic Preservation Act of 1976, 16 USC 469. This Act provides for the preservation of historical and archaeological data that might otherwise be lost as the result of a federal construction project or a federally licensed or assisted project. Federal involvement has not yet been identified for this project, thus a lead Federal agency would be identified at the time the project the project is determined to be a “Federal undertaking”.

Archaeological Resources Protection Act of 1979, 42 USC 470aa et seq. This Act provides felony-level penalties for removal or damage to archaeological resources more than 100 years old. Federal involvement has not yet been identified for this project, thus a lead Federal agency would be identified at the time the project the project is determined to be a “Federal undertaking”.

American Indian Religious Freedom Act of 1979, 42 USC 1996. It is the policy of the United States to protect and preserve the American Indian’s (and other indigenous groups) right to express and exercise their traditional religions, including access to religious sites. Federal involvement has not yet been identified for this project, thus a lead Federal agency would be identified at the time the project the project is determined to be a “Federal undertaking”.

Native American Graves Protection and Repatriation Act of 1990, 25 USC 3001. This Act establishes the rights of Indian tribes and Native Hawaiians to claim ownership of certain cultural items held or controlled by federal agencies. Federal involvement has not yet been

identified for this project, thus a lead Federal agency would be identified at the time the project the project is determined to be a “Federal undertaking”.

Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation, September 29, 1983. These guidelines are non-regulatory standards for the gathering and treatment of data related to cultural resources.

The administering agency for the above authority is the Secretary of the Interior and a lead Federal agency which would be identified at the time the project the project is determined to be a “Federal undertaking.”

Prevention of Significant Deterioration Permit (PSD). Provided when issuance of the PSD Permit is a federal undertaking and requires compliance with Section 106 of the NHPA. Federal involvement has not been identified.

5.7.5.2 State

California Environmental Quality Act (CEQA) Section 15064.5; California Public Resources Code § 5024, 5024.5, and 21083.2; Title 14, CCR § 15126. CEQA addresses the treatment of cultural resources that could be affected by the project, the evaluation of the importance of these resources, the assessment of project impacts to important resources, and the development of a plan to avoid or address adverse effects to these resources. Formal findings of importance (for state purposes, eligibility to the California Register of Historic Places) and project effects are made by the lead state regulatory agency or, for federal undertakings, in consultation between the federal lead agency, SHPO, and the Advisory Counsel on Historic Preservation.

The administering agency for the above authority is the CEC.

California Public Resources Code §§ 25523(A), 25527; 20 CCR §§ 1752, 1752.5, 2300 - 2309, and Chapter 2, Subchapter 5, Article 1, Appendix B, Part (i). The code sections provide for the inclusion of requirements in the CEC’s decision on an AFC to assure protection of environmental quality; the AFC is required to include a detailed description and discussion of the environment of the project area and the CEC is required to give special consideration to the need for protection of unique historical, archaeological and cultural sites.

The administering agency for the above authority is the CEC.

California State Health and Safety Code § 7050.5. The code section provides for County Coroner identification of human remains and, if determined to be of Native American origin, coordination with the NAHC.

The administering agency for the above authority is the Los Angeles County Coroner (Medical Examiner).

California Public Resources Code § 5097.5. The code section makes it a misdemeanor to remove without authorization archaeological resources or paleontological remains on sites located on public lands (Stats. 1965, c. 1136, p. 2792).

The administering agency for the above authority is the Los Angeles County Planning Department.

California State Public Resources Code § 5024.1. The code section provides for the establishment of the California Register of Historic Resources and procedures for nominating sites to the Register.

The administering agency for the above authority is the State Historical Resources Commission.

California Public Resources Code § 5097.94 and 5097.98. The code section provides for mediation of disputes related to recovery and treatment of Native American human remains and identification of Most Likely Descendants.

The administering agency for the above authority is the California Native American Heritage Commission (NAHC).

5.7.5.3 Local

Los Angeles County General Plan: General Provisions

The Los Angeles general plan (Los Angeles County 1980) encourages cultural heritage resources to be identified and protected. These resources include historical, archaeological, paleontological and geological sites, and significant architectural structures. The county promotes public awareness and use of cultural heritage sites consistent with the protection of these resources. Los Angeles County supports the mitigation of damage to archaeological and paleontological resources, which may include excavation and deposition of specimens in scientific institutions. The county offers various techniques to protect and enhance cultural heritage resources including land use regulations, historic district zoning, conservation and open space easements, registration in the National Register, transfer of development rights, and public acquisition.

Per Ms. Annie Lin of Los Angeles County Planning, the County of Los Angeles follows all provisions of the CEQA.

The administering agency is Los Angeles County.

Los Angeles County Code

In the Los Angeles County, Title 22: Planning and Zoning, Chapter 22.56.215 refers to regulations in hillside management and significant ecological areas. Section F(1)(b) requires proposed projects in hillside management areas be compatible with the natural, biotic, cultural, scenic and open space resources of the area.

The administering agency is Los Angeles County.

City of El Segundo

Per Mr. Enrique Huerta of the El Segundo City Planning Department, the City of El Segundo follows all provisions of CEQA. Upon discovery of areas of potential cultural, archaeological and paleontological significance, the city requires notification to the administering city or state agency.

The administering agency is the City of El Segundo.

City of Manhattan Beach

Per Ms. Rosemary Lackow of the Manhattan Beach Community Development Department, there is no specific city legislation regarding cultural or paleontological resources. The city will follow all provisions of CEQA and require notification upon discovery of areas with potential cultural and paleontological significance.

The administering agency is the City of Manhattan Beach.

City of Los Angeles

The City of Los Angeles Planning Department is unaware of any city LORS pertaining to cultural or paleontological resources. They city will follow all provisions of CEQA and require notification upon discovery of areas with potential cultural and paleontological significance.

The administering agency is the City of Los Angeles.

5.7.5.4 Industry Codes and Standards

No laws, ordinances, regulations, standards or codes are applicable.

5.7.5.5 Agencies and Agency Contacts

Agencies with jurisdiction to issue applicable permits and/or enforce LORS related to cultural resources are shown in Table 5.7-1.

5.7.5.6 Applicable Permits

Applicable Permits for cultural resources are listed in Table 5.7-12.

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TABLE 5.7-10

SUMMARY OF LORS AND COMPLIANCE CULTURAL RESOURCES

AFC Section	Jurisdiction	Authority	Administering Agency	Requirements/Compliance
Sections 5.7.1, 5.7.5.1	Federal	NHPA, as amended; 16 USC § 470 et. seq.; Section 106; 36 CFR 60.4 and 800.	*SHPO/Lead Federal Agency	Formal findings by the lead Federal agency for cultural resources in consultation with the SHPO and the Advisory Council on Historic Preservation. Implement procedures for dealing with cultural resources discovered during construction.
Sections 5.7.1, 5.7.5.1		NEPA; 42 USC 4321 - 4327; 40 CFR § 1502.25.	*Lead Federal Agency	Analysis of potential environmental impacts on federal lands.
Sections 5.7.1, 5.7.2, 5.7.5.1		Federal Antiquities Act of 1906: 16 USC 432, 433	*Lead Federal Agency	Basic legislation for preservation of cultural properties on Federal lands.
Sections 5.7.1, 5.7.5.1		Executive Order 11593	*Lead Federal Agency	Directs Federal agencies to inventory, nominate properties to the NRHP and protect cultural resources
Sections 5.7.1, 5.7.5.1		Archaeological and Historic Preservation Act of 1976 (16 USC 469)	*Secretary of the Interior and Lead Federal Agency	Provides for coordination with the Secretary when a Federally licensed undertaking may cause irreparable damage to significant cultural resources.
Sections 5.7.1, 5.7.5.1		Archaeological Resources Protection Act of 1979 16 USC 470a et. seq.	*Secretary of the Interior and Lead Federal Agency	Provides for felony-level penalties for destruction, damage or removal of cultural resources on Federal lands.
Sections 5.7.1, 5.7.5.1		Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001).	*Lead Federal Agency	Establishes mechanism for right of Indian tribes to claim ownership of human remains and certain cultural items.
Sections 5.7.1, 5.7.5.1		Secretary of the Interior’s Standards and Guidelines, September 29, 1983.	*Secretary of the Interior and Lead Federal Agency	Establishes standards for the gathering and treatment of data related to cultural resources.
Sections 5.7.1, 5.7.5.1		Prevention of Significant Deterioration (PSD) permit	*U.S. Fish and Wildlife Services (USFWS) (via delegation to South Coast Air Quality Management District (SCAQMD)	Provided when issuance of the PSD permit is a “federal undertaking” and requires compliance with section 106 of the NHPA.

**TABLE 5.7-10
(CONTINUED)**

AFC Section	Jurisdiction	Authority	Administering Agency	Requirements/Compliance
Sections 5.7.1, 5.7.2, 5.7.3, 5.7.5.2	State	California Environmental Quality Act (CEQA) Section 15064.5; California Public Resources Code § 5024, 5024.5, and 21083.2; Title 14, CCR § 15126.4	CEC	Formal findings by the lead state agency regarding project-related effects to important cultural resources.
Sections 5.7.1, 5.7.2, 5.7.3, 5.7.5.2		Cal. Pub. Res. Code §§ 25523(A), 25527; 20 CCR §§ 1752, 1752.5, 2300 – 2309, and Chapter 2, Subchapter 5, Article 1, Appendix B, Part (i).	CEC	Special consideration of unique historical, archaeological and cultural sites.
Sections 5.7.1, 5.7.2, 5.7.3, 5.7.5.2		Cal. Health & Safety Code § 7050.5.	County Coroner (Medical Examiner) Mr. Lakshmanan Sathyavagiswaran, M.D. (323)343-0714	Determination of origin of human remains and coordination with NAHC.
Sections 5.7.1, 5.7.2, 5.7.5.2	State (continued)	Cal. Pub. Res. Code § 5024.1	State Historical Resources Commission	Provides for the establishment of the California Register of Historic Resources and procedures for nominating sites to the Register.
Sections 5.7.3, 5.7.5.2		Cal. Pub. Res. Code § 5097.94 and 5097.98. 21	Native American Heritage Commission (NAHC) Rob Wood (916) 653-4040	Provides for mediation of disputes related to recovery and treatment of Native American human remains and identification of Most Likely Descendants.
Sections 5.7.2, 5.7.3, 5.7.5.3	Local	Los Angeles County General Plan (Los Angeles County 1980).	Los Angeles County Mr. Lee Stark (213) 974-6467	Provides policies to protect and identify historical, archaeological, paleontological, geological and significant architectural structures.
Sections 5.7.2, 5.7.3, 5.7.5.3		Los Angeles County Code Title 22; Chapter 22.56.215 Section F1b.	Los Angeles County Mr. Lee Stark (213) 974-6467	Requires projects in hillside management areas be compatible with the natural, biotic, cultural, scenic and open space resources of the area.
Sections 5.7.2, 5.7.3, 5.7.5.3		City of El Segundo Planning Department	City of El Segundo Mr. Enrique Huerta (310) 322-4670	The city follows all provisions of CEQA and requires notification of significant cultural findings to the administering city or state agency.
Section 5.7.5.3	Local (continued)	Los Angeles City Planning Department	City of Los Angeles Mr. Con Howe (213) 580-1160	The city follows all provisions of CEQA and will be notified of significant cultural findings.
Section 5.7.5.4	Industry	None Applicable	--	--

**TABLE 5.7-10
(CONTINUED)**

AFC Section	Jurisdiction	Authority	Administering Agency	Requirements/Compliance
Sections 5.7.3, 5.7.5.2	State	California's Public Resources Code §5097.5		It is a misdemeanor to remove archaeological resources or paleontological remains on public lands.
Sections 5.7.3, 5.7.5.1	Federal	American Indian Religious Freedom Act of 1979, 42 USC 1996		To protect and preserve American Indian right to traditional religions, including access to religious sites.

* This project is not a Federal undertaking at this time and is not expected to trigger any of the Federal LORS described herein.

**TABLE 5.7-11
AGENCY CONTACTS**

AGENCY	CONTACT	TITLE	TELEPHONE
California Native American Heritage Commission	Mr. Rob Wood	Associate Government Program Analyst	(916) 653-4040
Los Angeles County Coroner	Mr. Lakshmanan Sathyavageswaran	Medical Doctor	(323) 343-0714
County of Los Angeles, Department of Regional Planning	Mr. Lee Stark	Supervising Regional Planner	(213) 974-6467
Los Angeles City Planning Department	Mr. Con Howe	Director of Planning	(213) 580-1160
City of Manhattan Beach, Community Development Department	Mr. Richard Thompson	Director of Community Development	(310) 802-5504
City of El Segundo, Community Development Department	Mr. Enrique Huerta	Associate Planner	(310) 322-4670
California Department of Parks & Recreation Office of Historic Preservation	Mr. Dwight Dutschke	Associate Government Program Analyst	(916) 653-6624

TABLE 5.7-12

PERMIT LIST

Permit	Agency	Schedule
<i>Federal</i>	No permits have been identified	
<i>State</i>	No permits have been identified	
<i>Local</i>	No permits have been identified	

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date _____

Technical Area: Cultural Resources

Project: _____

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Sections 5.7.1.1, 5.7.1.2, 5.7.2, 5.7.3, and 5.7.4 Table 5.7-1		
Appendix B (g) (2) (A)	A brief summary of the ethnology, prehistory, and history of the region in which the project site and related facilities are located and maps at a scale of 1:24,000, indicating areas of ethnographic occupation. The region may vary depending on the extent of the territory occupied or used by prehistoric cultures indigenous to the area in which the project is located.	Sections 5.7.1.3 through 5.7.1.7 Figure 5.7.1		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date _____

Technical Area: Cultural Resources

Project: _____

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (B)	A description of all literature searches and field surveys used to provide information about known cultural resources in the project vicinity. If survey records of the area potentially physically affected by the project are not available, and the area has the potential for containing significant cultural resources, the applicant shall submit a new or revised survey for any portion of the area lacking comprehensive survey data. A discussion of the dates of the surveys, methods used in completing the surveys, and the identification and qualification of the individuals conducting the surveys shall be included.	Sections 5.7.1.8 through 5.7.1.10, and 5.7.1.11.1 Tables 5.7-1, 5.7-2, 5.7-3; Appendix J		
Appendix B (g) (2) (C)	A discussion of the sensitivity of the project area described in subsection (g)(2)(A) and the presence and significance of any known archeological sites and other cultural resources that may be affected by the project. Information on the specific location of archeological resources shall be included in a separate appendix to the application and submitted to the Commission under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq.	Section 5.7.2.3 Appendix J		
Appendix B (g) (2) (D)	A summary of contacts and communications with, and responses from, Native American representatives who may have an interest in heritage lands and/or resources potentially affected by the proposed project.	Section 5.7.1.8 Appendix J		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date _____

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Project: _____

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (E)	In the discussion on mitigation and monitoring prepared pursuant to subsection (g)(1), a discussion of any educational programs proposed to enhance awareness of potential impacts to archeological resources by employees and contractors, measures proposed for mitigation of impacts to known cultural resources, and a set of contingency measures for mitigation of potential impacts to previously unknown cultural resources.	Section 5.7.3 Pages 5.7-46 through 5.7-50,		
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Pages 5.7-79 to 82 (Table 5.7-10)		
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Page 5.7-83 (Table 5.7-11)		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date _____

Technical Area: Cultural Resources

Project: _____

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Various, Sections 5.7.1, 5.7.2, 5.7.3, 5.7.4, and 5.7.5		
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 5.7-11		
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Table 5.7-12		