3.4

CULTURAL RESOURCES

3.4.1 Introduction

This section describes the environmental setting for cultural resources within the PMPU area, identifies applicable regulations, and analyzes the potential impacts that could result from implementing the proposed Program. Mitigation measures and the significance of impacts after mitigation also are described.

Cultural resources include archaeological resources, ethnographic resources, and the historical built environment (architectural resources). Though not specifically a cultural resource, paleontological resources (fossils pre-dating human occupation) are considered here because they are discussed in Appendix G of the CEQA Guidelines (Environmental Checklist Form), in the context of Section V, Cultural Resources.

3.4.2 Environmental Setting

The Port is located in the Los Angeles Basin, a broad, level expanse of land comprising more than 800 square miles that extends from Cahuenga Peak south to the Pacific coast, and from Topanga Canyon southeast to the vicinity of Aliso Creek. Prior to historical settlement of the area, the plain was characterized by extensive inland prairies and a lengthy coastal strand, with elevations approximately 500 feet above MSL. The Los Angeles plain is traversed by several large watercourses, most notably the Los Angeles, Rio Hondo, San Gabriel, and Santa Ana Rivers. Marshlands fed by fresh or salt water once covered many portions of the area. To the west, the coastal region encompasses approximately 375 square miles of varied terrain. West of Topanga Canyon the terrain is rugged; the steep, westward slopes of the Santa Monica Mountains reach 1,000 feet or more in elevation, except where stream-cut ravines and canyons drain onto narrow beaches at the water's edge. From Topanga Canyon south to the Palos Verdes Peninsula, a distance of roughly 22 miles, the coast is flat and level. Extensive marshlands once existed near the mouth of Ballona Creek in the area now known as Playa del Rey. The terrain becomes rugged once again along the Palos Verdes Peninsula for a distance of approximately 12 miles before reaching San Pedro Bay, which in prehistoric times was characterized by extensive mud flats and sand bars (McCawley 1996; Hamilton et al. 2004).

The PMPU area is located on the eastern side of the Palos Verdes Hills in the southwestern portion of the Los Angeles Basin. The Palos Verdes Peninsula is composed primarily of marine sedimentary rocks that have been uplifted about 1,300 feet in the past 1 million years. The Palos Verdes Hills consist of a Jurassic-age metamorphic basement complex (Catalina Shist) that is overlain by about 3,000 feet of sedimentary rock formations of Miocene, Pliocene, and Pleistocene age (Woodring et al. 1946). The Miocene rocks (light-colored, well-bedded mudstones, siltstones, and shales) are covered by fill material which also makes up large portions of the PMPU area, as land has been built up during the historic development of the Port (USACE and LAHD 2008).

The port complex was once a low-lying coastal marsh generally referred to as either the Wilmington Lagoon or San Pedro Creek. The lagoon had a complex network of estuaries, stream channels, tidal channels, sand spits, beaches, and marshy inlands (Schell et al. 2003). Although the present configuration of the Port partly reflects the natural arrangement of the landscape, filling and dredging activities have formed an extensive network of wharves and shipping channels along the waterfront. Earth deposits underlying much of the PMPU area consist of artificial fill materials, as this area of land has been built up during the historic development of the Port.

3.4.2.1 Prehistoric Setting

Around 11,000 years ago, a general warming trend, often referred to as the Altithermal, began in California (Carbone 1991). The Altithermal resulted in a rise in sea levels, which had an enormous impact on drainage patterns and the type and availability of food sources in the area. Rapid sea level rise markedly altered land areas along the California coast during the Early Holocene (10,000 to 6,600 years ago). As a result of marine encroachment, large portions of the continental shelf were submerged. Therefore, archaeological sites located along the modern coast are, in some cases, far removed from Early Holocene shorelines. Furthermore, it is likely that most archaeological sites associated with the Early Holocene along the southern mainland coast were destroyed or obscured by sea level advance and sedimentation (Arnold 1991; Carbone 1991).

Evidence of human occupation in southern California extends at least 10,000 years ago. A number of chronological schemes have been proposed for subdividing that time span into developmental periods (Wallace 1955; Warren 1968; King 1981). Cultural evolution has been consistently defined in four general periods: the Early Period from 10,000 to 8,000 before present (BP); the Millingstone Period from 8,000 to 3,500 BP; the Intermediate Period from 3,500 to 800 BP; and the Late Prehistoric Period from 800 BP to the Spanish missionization of California, in this case the founding of Mission San Gabriel in 1771. Occasionally, the period from AD 1542 (the date of initial European contact with California Native Americans) to AD 1771 (the date of the founding of Mission San Gabriel) is designated as Protohistoric in recognition of the profound effects presumed to have occurred as a result of intermittent contact with European explorers.

The Early Period material culture is characterized by large, fluted projectile points that imply heavy reliance on large game for subsistence. This diet was most likely supplemented with plants and small game. Sites dating to the Early Period appear

primarily along the eastern portions of southern California (China Lake, Lake Tulare, and Borax Lake); however, the La Brea skeleton has been dated to 9,000± 80 BP.

The Milling Stone Period material culture is characterized by portable milling stones and hand stones (manos) for processing its primary subsistence base of wild seeds. Some terrestrial hunting was practiced during this period, and there is evidence of marine resource use in Milling Stone sites (Wallace 1978). Sites attributed to this complex have been dated as early as 8,000 BP. In Los Angeles County, the best known site from this period is the Topanga Culture, as defined by Treganza and Malamud (1950).

The subsistence base diversified during the Intermediate Period to include a wider variety of plant foods, as evidenced by the appearance of mortars and pestles, and greater reliance on marine resources within the small-animal protein dietary component (Wallace 1978). The 1,250 BP (AD 700) modal radiocarbon date falls toward the end of this period. Ballona Creek sites, CA-LAN-64 (1860 BP), CA-LAN-59 (620 to 1100 BP), CA-LAN-61 (1000 to 2900 BP), and CA-LAN-63 (1590 to 2120 BP) are among the few recognized Intermediate Period deposits (Dillon 1994).

By the Late Prehistoric Period, the southern California coast was occupied by a maritime-adapted people who lived in populous, semi-permanent coastal villages and had a high reliance on animal protein, both terrestrial and marine (Rogers 1929). These people used seagoing canoes that enabled them to deep sea fish, hunt for marine mammals, and travel the coastal and channel island trade networks. Sites CA-LAN-47 (Marine del Rey) and CA-LAN-43 (Encino) are among the Late Prehistoric village sites identified in Los Angeles County.

3.4.2.2 Ethnographic Setting

Ethnographic resources include sites, areas, and materials important to Native Americans for religious, spiritual, or traditional uses. These can encompass the sacred character of physical locations (mountain peaks, springs, and burial sites) or particular native plants, animals, or minerals that are gathered for use in traditional ritual activities. All prehistoric archaeological sites (including villages, burials, rock art, and rock features) along with traditional hunting, gathering, or fishing sites are generally considered by contemporary Native Californians as important elements of their heritage.

Native Americans who prehistorically inhabited the Port region at the time of Spanish contact were ultimately baptized at Mission San Gabriel. These Native Californians are known as the Gabrielino. These people occupied a vast area of territory extending through the watersheds of Los Angeles, San Gabriel and Santa Ana rivers, several streams in the Santa Monica and Santa Ana mountains, all of the Los Angeles basin, along the Pacific Coast from Aliso Creek to Topanga Creek, and on San Clemente, San Nicholas, and Santa Catalina islands (Bean and Smith 1978). As the population was distributed over diverse environmental habitats, strategies for food collection including hunting, fishing, and plant gathering were varied.

The Gabrielino as a group were extremely wealthy and populous due to their access to a variety of natural resources, such that their influence through trade extended as far as

the San Joaquin Valley, the Colorado River, and south into Baja California. In particular, their use of shell inlay in asphaltum, use of rare minerals, stone carvings, and rock paintings are considered of exceptional quality. Their steatite (soapstone) carvings of animals, pipes, ornaments and other ritual ornaments are cultural trademarks. The Gabrielino maintained a sophisticated chiefdom level of social organization, with an elite (including the chief and his family, and the very rich), middle class family lineages, and a lower class involved in ordinary social activities (Bean and Smith 1978).

With the establishment of the mission system at Mission San Gabriel in 1771, the Gabrielino peoples were forcibly baptized and integrated into the economic sphere of the Mission. Villages were abandoned, hunting and gathering activities were disrupted as newly introduced agricultural practices altered the landscape, and large segments of the native population were decimated by European diseases. By the time mission lands were secularized in 1834, there were approximately 1,000 converts (neophytes) living at Mission San Gabriel; however, the ancestral Gabrielino lifestyle had been destroyed.

A succession of administrators subsequently liquidated Mission holdings. By the time California was admitted into the U.S. in 1848, most of the Native American population had fled. The smallpox epidemic of 1862-1863, other introduced diseases, starvation, and violence devastated the remaining Native Californian population. By 1900, there were only a few scattered Gabrielino survivors (Bean and Smith 1978).

3.4.2.3 Historic Setting

3.4.2.3.1 Early History

The Port, at the southernmost point of Los Angeles County, occupies portions of three former historic ranchos: *Rancho San Pedro*, *Rancho Los Palos Verdes*, and *Rancho Los Cerritos*, with a combined total of 84,000 acres (Beck and Haase 1974). By 1830, San Pedro was the leading west coast center of hide production, the primary export of the missions and, later, the ranchos (Queenan 1986). Admission into the U.S. in 1848 and the gold rush of 1849 brought landless Americans to the San Pedro area, but ranching remained its primary enterprise. Flint, Bixby & Company (one of the largest sheep ranchers) was headquartered in San Pedro, but the Port area remained underused.

Ships generally anchored near the rocky shoreline along the western edge of the bay at San Pedro; the harbor was not well protected or very deep. Eight major floods along the Los Angeles River between 1815 and 1876 caused tons of silt to be deposited into the river channel, also affecting San Pedro Bay.

Modification of the harbor area began when USACE constructed two jetties in 1871 and deepened the channel leading to the Wilmington landing in 1880. USACE began construction on the breakwater in 1899.

3.4.2.3.2 Initial Commercial Shipping, 1857 to 1897

Phinneas Banning, one of the earliest residents of the area, recognized its potential as a commercial shipping port. In 1857, he constructed new docks to capitalize on the

increasing trade coming in and out of Los Angeles along two of the primary routes to the southwest goldfields, the Gila River Trail and the Old Spanish Trail. With his base location in Wilmington, Banning shuttled materials on smaller boats to and from the Rancho San Pedro waterfront.

Banning also understood the importance of rail transportation between his operation on the bay and the growing City of Los Angeles. In 1869, Banning organized the Los Angeles and San Pedro Railroad (LA&SP), the first reliable means of moving cargo from the ships coming into San Pedro Harbor to the City of Los Angeles.

The first short rail line in southern California, the LA&SP, was acquired by the Southern Pacific Railroad (SPRR) in 1872. In an attempt to break the monopoly the SPRR had on shipping in the area, Senator John P. Jones from Nevada started the Los Angeles and Independence Railroad (LA&I) (Los Angeles to Santa Monica Pier) 1 year prior to the acquisition of LA&SP by SPRR. However, the LA&I also was absorbed quickly into the SPRR system, in 1877 (Queenan 1986).

Improved transportation to and from the harbor facilitated the burgeoning growth of Los Angeles. Between 1880 and 1890, the population of the city grew from 11,000 to 50,000. By 1900, it had reached 102,000 (Matson 1920). This boom fueled increased demand for construction supplies and consumer goods, much of which arrived on ships that docked at San Pedro.

3.4.2.3.3 Founding of Port of Los Angeles, 1897 to 1913

The growth of commerce in the Los Angeles region required formal establishment of a shipping port. The federal government agreed to assist the city by establishing its official harbor in the region. Following the recommendation of several studies of possible alternatives, the San Pedro Harbor site won authorization from Congress in March 1897.

In preparation for the opening of the Panama Canal (which occurred in 1914), the City of Los Angeles extended its boundaries to coastal tidewaters when it annexed a strip of San Pedro in 1906. The Port and the LAHD were officially created in December 1907, and numerous harbor improvements followed. These improvements included completion of the 2.22-mile breakwater, broadening and dredging of the main channel, completion of the first major wharf by the SPRR, construction of the Angel's Gate lighthouse, and construction of the first municipal pier and wholesale fish market. By 1909, both Wilmington and San Pedro had been consolidated into the City of Los Angeles. As a result of these improvements and consolidation, by 1913, the Port was the largest lumber importer in the world (Matson 1920).

The opening of the Panama Canal in August 1914 significantly reduced the transshipment time between eastern and western U.S. ports. The canal also promised to open up new trade opportunities worldwide. In anticipation of increased trade, the City of Los Angeles completed one of many large municipal terminals in the harbor. With the outbreak of World War I, the promise of increased trade and expansion possibilities was put on hold (Queenan 1986).

3.4.2.3.4 Wartime Changes, 1914 to 1950

World War I considerably changed the principal uses of the Port. Wishing to establish a significant presence on the Pacific coast, the U.S. Navy took possession of a portion of the harbor and used it as a training and submarine base.

During the war, the Port was one of the chief sources of employment for area residents. Shipbuilding enterprises (including Southwestern Shipbuilding Company, Los Angeles Shipbuilding and Drydock Corporation, and Ralph J. Chandler Shipbuilding) began turning out vessels by the dozens for the war effort. The Port of Long Beach, established only 2 years before the onset of the war, offered the only southern California shipping and shipbuilding competition to the Port.

Despite the previous use of the Port for the shipment of goods both into and out of California, it was not until 1915 that the first warehouse was completed. With that completion, the Port was transformed from a small, poorly equipped landing to a significant seaport able to handle deep-sea ships with varied cargo (Queenan 1986). Increased trade at the Port between 1917 and 1930 motivated many distributors to construct more warehouses and sheds.

Improvements to transportation systems in the harbor area also facilitated the growth of trade. By 1917, a vast railroad network existed around the harbor and the Los Angeles region, allowing for the efficient transfer of goods across the country (San Buenaventura Research Associates 1992).

Following the end of World War I in 1918, the Port was increasingly used for the importation of lumber and other types of raw materials. As in the prewar period, approximately 98 percent of the inbound cargo consisted of lumber needed to satisfy the demand for housing and factories caused by the rapid growth of the Los Angeles area (Matson 1920). The dominant export in the postwar years was crude oil.

With the end of the war, limitations on trade ended. Los Angeles had developed a wide variety of enterprises whose products passed through the Port. Although freight-handling facilities had long existed for oil, lumber, shipbuilding, and fish, new facilities were developed to handle such products as cotton, borax, citrus crops, and steel. In 1923, the City of Los Angeles passed a harbor improvement bond measure for construction of additional wharves to meet the demands of increased trade (Queenan 1986; San Buenaventura Research Associates 1992). By 1929, in an effort to streamline the railroad portion of shipping within the harbor, the various railroad companies including the SPRR, UP, Santa Fe, and Pacific Electric Railway, consolidated their operations under the title “Harbor Belt Line Railroad” (Queenan 1986; San Buenaventura Research Associates 1992).

During the Depression years, traffic within the Port slowed along with the rest of the American economy (Queenan 1986). Although the Port experienced a sharp decline in its international trade, the Harbor Commission continued to improve its facilities, constructing a new breakwater and new cargo and passenger terminals.

During World War II, San Pedro Harbor, as one of the closest major ports to the Pacific Theatre of Operations, was fully involved in defense activities. Between 1941 and 1945, ship and aircraft production facilities in the harbor area worked day and

night to produce more than 15 million tons of war equipment. Hundreds of thousands of military and civilian personnel shipped out through San Pedro in support of the war effort and returned through it when their tasks were done.

Following the war, LAHD launched a broad restoration program. Many of the facilities in the harbor required maintenance that had been delayed due to the war. Although the adjacent Long Beach Harbor conducted its own improvements while battling subsidence (the sinking of the land from the many years of oil extraction), LAHD improved a number of its buildings and removed many temporary wartime buildings (Queenan 1986).

3.4.2.3.5 Containerization, 1950 to Present

Methods of shipping changed dramatically following World War II with the introduction of containerization. Containerization is an integrated system of transport in which goods are shipped in standardized (20- or 40-foot-long), sealable metal boxes, designed for easy placement on compatible truck beds, railcars, and ships. Advantages of containerization include reduction of the labor force necessary to load shipments, decreased loading and unloading time, and decreased loss via theft or damage. Additional efficiencies arise from the integration of transport by truck, train, and ship. The primary disadvantage is the large capital outlay necessary to produce the new ships, cranes, rail cars, truck trailers, and port facilities designed to fit the containerization system.

In response to changes in shipping methods, the Port facilities were modified and upgraded. Changes included redesigning terminals to maximize the surface area of the terminal by providing berthing space at the wharves with little backland (transit sheds) to service each wharf. This would allow the placement of goods directly on the wharf and reduce handling and transit time between shed and ship.

In addition to the changes in the terminals, the new system required extensive backlands primarily to accommodate trailers and provide internal roadways to service each wharf. Because of the use of containers, the weight of the cargo increased dramatically, requiring much larger cranes to move the containers. The existing timber wharves were replaced with concrete that could support the cranes and containers.

The Port continued to evolve during the 1970s. Improvements included deepening the Main Channel to accommodate the larger container vessels; acquiring more land to expand existing terminals; and replacing old wharves with new ones that could support the increased weight of the containers. International shipment through the Port increased during the latter half of the twentieth century as ocean-going vessels grew too large to negotiate the Panama Canal. Using a land-bridge system, shippers could transfer materials from Pacific region sources to Atlantic region markets by unloading at the Port and trans-shipping via truck or train to vessels waiting at east coast ports (Queenan 1986).

3.4.2.4 Paleontological Resources Setting

Any rock material that contains fossils has the potential to yield fossils that are unique or significant to science. However, paleontologists consider that geological formations having the potential to contain vertebrate fossils are more “sensitive” than

those likely to contain only invertebrate fossils. Invertebrate fossils found in marine sediments are usually not considered by paleontologists to be significant resources, because geological contexts in which they are encountered are widespread and fairly predictable. Invertebrate fossil species are usually abundant and well preserved such that they are not unique. In contrast, vertebrate fossils are much rarer than invertebrate fossils and are often poorly preserved. Therefore, when found in a complete state, vertebrate fossils are more likely to be a more significant resource than are invertebrate fossils. As a result, geologic formations having the potential to contain vertebrate fossils are considered the most sensitive.

Vertebrate fossil sites are usually found in non-marine, upland deposits. Occasionally, vertebrate marine fossils such as whale, porpoise, seal, or sea lion can be found in marine rock units such as the Miocene Monterey Formation and the Pliocene Sisquoc Formations known to occur throughout central and southern California.

3.4.2.5 PMPU Area Setting

3.4.2.5.1 Archaeological Resources

A cultural resource site record and literature search of the PMPU area was performed on July 27, 2012, to identify the location of recorded archaeological sites and results of previous archaeological studies (Morlet et al. 2012). The records search was conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The SCCIC maintains the California Historical Resource Information System (CHRIS) database for Orange, Los Angeles, and Ventura Counties and keeps a record of all reported cultural resource studies and findings within these counties. The records search included a review of all archaeological sites within the PMPU area and a half-mile search radius surrounding the PMPU area.

The SCCIC records search results identified 22 archaeological sites within the search radius, eight of which are located within the PMPU area (Table 3.4-1). There could also be unknown and unrecorded archaeological sites potentially located within and adjacent to the PMPU area, although much of the PMPU area is underlain by artificial fill materials from prior dredging and construction activities and these fill soils have little likelihood of containing intact archaeological deposits.

Table 3.4-1. Archaeological Resources Recorded within the PMPU Area

Site Designation	*Description*	*Comment*
19-000145	Possible ethnographic village site	Reported as possibly destroyed
19-000146	Midden site	Reported as destroyed in 1977
19-000147	Midden site	Reported as destroyed
19-000149	Possible midden site	-
19-000150	Large midden site	-
19-000283	Ethnographic village site	Reported as largely destroyed by freeway construction
19-000285	Possible ethnographic village site	Reported as probably destroyed
19-001129	Historic site containing remnants of Lower Fort Arthur; remains included early 20th century refuse, a railroad gun, dike and trestle, and a pier	Reported as largely destroyed

3.4.2.5.2 Historic Architectural Resources

Based on the cultural resource site record and literature search noted above, a review was completed of the California Points of Historical Interest, the California Historical Landmarks (SHL), the California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), the California State Historic Resources Inventory, and the City of Los Angeles Historic-Cultural Monuments (LAHCM). Additionally, archaeological and architectural history evaluation reports on file at the Port were reviewed. Most of these reports were conducted for LAHD between from 2000 to 2008, and consist of architectural survey and assessments of individual or multiple properties. The studies also include several historical assessments, such as those of the Bekins Warehouses and the National Polytechnic College of Engineering and Oceaneering.

Based on the above review, Table 3.4-2 lists the various historic architectural resources within the PMPU area that are eligible for listing or have been listed in one of the federal, state, and/or local registers.

Table 3.4-2. Recorded and Potentially Eligible Historic Resources in the PMPU Area

Register	*Name/Description*	*PMPU Planning Area*
CRHR	Al Larson Boat Shop, 1046 South Seaside Avenue, Structures A1 (Stock Room and Tool Room), A2 (Offices, Carpenter Shop, winch houses and bathrooms and storage), A3 (Storage), C1 (Machine and Electrical Shops), and C2 (Welding Shop and Storage)	4
LAHCM	American Marine Corporation, 1500 S. Barracuda Street, office and sheds	3
CRHR	Borax Facility, 300 Falcon Street, Berths 165-166	2
LAHCM	Cabrillo Beach Bathhouse,3720 Stephen M. White Drive, LAHCM No. 571	1
CRHR	***Cabrillo Marine Aquarium, 3730 Stephen M. White Drive***	1
NRHP	California Petroleum Company Terminal, Marine Oil Terminal, Berths 171-173 (demolished)	2
NRHP	Chicken of the Sea Cannery, 338 Cannery Street, Cannery Building, Retort Building, Packing Building, Cooking Building, Butchering Building, Office Building, and Warehouse 1	4
LAHCM	College of Oceaneering - National Polytechnic College of Engineering and Oceaneering, 252 South Fries Street, Single Two-Story Wooden Office Building	2
CRHR	Cruise Terminal 100 Swinford Street, Berths 93A, B, C	2
CRHR	Duffy's Ferry	2
NRHP	Federal Breakwater	5
CRHR	Harbor Construction and Maintenance Yard, Berth 161, Auto Repair Garage, Service Building, Cabinet Shop and Mill, Consolidated Shop, Boat Shop, Carpenter's Shop and Rigging Loft, Blacksmith Shop, Electric Shop, and Paint Shop	2
SHL	***Liberty Hill Site, vicinity of 5th Street and Harbor Boulevard, SHL-1021, 19-150331***	1
NRHP	***Los Angeles Harbor Light Station, San Pedro (19-167268)***	5
NRHP, LAHCM	***Municipal Ferry Building (Maritime Marine Museum), Berth 84, San Pedro (19-176736), LAHCM No. 146***	1
NRHP, LAHCM	***Municipal Warehouse No. 1, 2500 Signal Street, LAHCM No. 2709***	1
NRHP	Municipal Pier No. 1, Berths 57-60	1

Table 3.4-2. Recorded and Potentially Eligible Historic Resources in the PMPU Area

Register	*Name/Description*	*PMPU Planning Area*
NRHP	Municipal Wholesale Fish Market, 2190 Signal Street	1
NRHP	Pan American Petroleum Company Marine Loading Station Facility Pump House (Westway Facility), Berth 70	1
NRHP	Pan Pacific Fisheries, 350 Sardine Street, Cannery Building	4
NRHP	Pan-Am Terminal Facility – Signal Street Properties, Berth 56, CDFG Building	1
NRHP, LAHCM	***Ralph J. Scott Fireboat No. 2, Berth 87, San Pedro (19-180719), LAHCM No. 154***	1
NRHP	S.P. Slip No. 1	1
NRHP	***S.S. Lane Victory, Berth 4, San Pedro (19-1870720)***	1
NRHP, SHL, LAHCM	***S.S. Catalina (The Great White Steamship), San Pedro (19-167267), SHL-0894, LAHCM No. 213, (Broken up for Scrap)***	
CRHR	San Pedro Boat Works, Berth 44, All Buildings	1
CRHR	Sewage Pump Station #666, 647 Fries Avenue	2
NRHP	Sewage Pump Station #669, 390 N. Seaside Avenue	4
NRHP District	Southwest Marine Terminal, Berth 240, Administration Building, Medical Building (No. 8), Foreman's Building (No. 34), Transportation Shop (No. 4), Blacksmith and Anglesmith Shop, Plate Shop (No. 6), Machine Shop (No. 3), Machine Storage and Warehouse Building (No. 7), Shop (No. 9), Employees' Building, Paint Shop and Substation, Substation No. 3, Substation No. 7, Building No. 22, Dry Dock No. 2, and Pre-1946 Cranes	3
NRHP	Star-Kist Tuna Cannery Main Plant, 1050-1054 Ways Street	4
SHL, LAHCM	***Timm's Point and Landing, SHL-0384, 19-186583, LAHCM No. 171***	1
NRHP	Transit Sheds, Berths 57, 58-60, 151-157	2
NRHP	Union Oil Terminal, Berths 150-151	2
NRHP	United Fruit Company Terminal, Berth 147 (Demolished)	2
NRHP	U.S. Customs House, 300 South Ferry Street, Office Building and Warehouse	3
NRHP	U.S. Immigration Station, 309 E. 22nd Street, Two-story Commercial Building (currently Canetti's Restaurant)	1
LAHCM	***USS Los Angeles Naval Monument (John S. Gibson, Jr. Park), LAHCM No. 188***	1
NRHP	Vincent Thomas Bridge	2,3,5
Note: Bold italic type indicates that a property is listed in the NRHP, CRHR, or LACHM.		

Additionally, field reconnaissance surveys of all unevaluated buildings in the PMPU area were conducted in August and September 2012 by an architectural historian who meets the U.S. Secretary of the Interior's Professional Qualifications Standards (48 Federal Register 44738-9) (Morlet et al. 2012) (Appendix E). The historical significance and integrity of seven unevaluated properties was assessed to determine each property's eligibility for listing in the CRHR and as a Historic-Cultural Monument for the City of Los Angeles. Significance is based on how well the resource represents one or more of the themes discussed in the historic context and its association with important events or people as well as its inherent architectural and engineering qualities and potential to yield information about the past. Moreover, in order to be considered representative of a particular historical theme, a resource not only must possess significant associations but also retain integrity, meaning it must

possess the ability to convey its importance. The seven aspects of integrity are location, setting, feeling, association, workmanship, materials, and design. Based on this evaluation, the four properties recommended as eligible for listing in the CRHR are the Borax Facility 300 Falcon Street (Berths 165-166), Harbor Construction and Maintenance Yard (Berth 161), Pump House # 666, and Cruise Terminal 100 Swinford Street (Berths 93A, B, C) (Table 3.4-2).

3.4.2.5.3 Paleontological Resources

A museum records search was conducted at the Natural History Museum of Los Angeles County on September 11, 2012, to determine whether or not fossil localities have been previously discovered within a particular rock unit within or near the PMPU area. According to published geologic mapping and museum records, the PMPU area is underlain by eight individually mapped geologic units, spanning in age from the Tertiary to the Quaternary periods. These units, in approximate ascending stratigraphic order, include the late Miocene (11.6 to 5.3 million years ago [Ma]) Valmonte Diatomite of the Monterey Formation; the late Miocene Malaga Mudstone, the early Pleistocene (2.6 to 1.8 Ma) Timms Point Silt; the late Pleistocene (1.8 Ma to 10,000 years BP) San Pedro Sand; the late Pleistocene Palos Verdes Sand; Quaternary nonmarine terrace deposits of late Pleistocene age; Quaternary beach sediments of Holocene age (10,000 BP to recent); and Quaternary artificial fill of Recent age (Dibblee 1999; McLeod 2012).

Museum collections records maintained by the Vertebrate Paleontology section of the Natural History Museum of Los Angeles County indicate that at least 15 scientifically significant fossil localities yielding hundreds of terrestrial and marine vertebrates have been documented either within or close by the PMPU area. These localities yielded an abundant and diverse number of fossil specimens, including large terrestrial fauna such as mammoths and camel, small mammals including squirrel and rabbit, as well as avian and reptilian remains. Marine fauna identified at these various localities include pinnipeds, whales, sharks, rays, and bony fish, among other taxa. These fossil specimens were recovered from Quaternary nonmarine terrace deposits, the Valmonte Diatomite, the Timms Point Silt, the San Pedro Sand, and the Palos Verdes Sand. No vertebrate localities were reported from the Malaga Mudstone, Quaternary beach sediments, or artificial fill. However, McLeod (2012) notes that the Malaga Mudstone was deposited in an environment conducive to the preservation of fossils and does have the potential to produce vertebrate specimens.

3.4.3 Applicable Regulations

Cultural resources within the Port and its vicinity are governed by federal, state, and local regulations, as described below.

3.4.3.1 Federal Regulations

3.4.3.1.1 Archaeological and Historic Architectural Resources

The National Historic Preservation Act (NHPA) of 1966, as amended, is the primary set of federal laws governing projects that may affect cultural resources. Section 106

of the NHPA requires that all federal agencies review and evaluate how their actions or undertakings may affect historic properties, although it only applies to the activities undertaken by federal agencies. Historic properties may include those that are already listed in the NRHP or those that are eligible but not yet listed.

The federal significance of an archaeological site or an architectural structure is determined by applying the NRHP eligibility criteria (36 CFR 800 and 36 CFR Section 60.4). These criteria state that a resource must be at least 50 years old and meet one or more of the following:

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:

- Is associated with events that have made a significant contribution to the broad patterns of history;
- Is associated with the lives of persons significant in the past;
- Embodies the distinctive characteristics of a type, period, or method of construction, represents the work of a master, possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or,
- Has yielded, or may be likely to yield, information important in prehistory or history.

If a property is less than 50 years old, it could be eligible for listing in the NRHP if it meets Criterion G, which requires a property to be "exceptionally significant." The phrase "exceptional importance" may be applied to the extraordinary importance of an event or to an entire category of resources so fragile that survivors of any age are unusual.

If a particular resource possesses integrity and meets at least one of the above criteria, it is considered as an eligible "historic property" for listing in the NRHP.

For Section 106 review, cultural resources (that is, archaeological and historic resources) must be identified and then evaluated using NRHP eligibility criteria. If NRHP-eligible cultural resources (termed historic properties) are present in the Area of Potential Effect (APE) for the project, it must be determined if the project will have an effect on the historic property and if the effect will be adverse. Title 36 CFR Part 800 (Section 106) defines effects and adverse effects on historic resources as follows:

- Section 800.9(a), Criterion of Effect, indicates that an undertaking has an effect on a historic property when it may alter characteristics of the property that may qualify it for inclusion in the NRHP. For the purpose of determining effect, alteration of features of a property location, setting, or use may be relevant depending on significant characteristics of a property; and,
- Section 800.9(b), Criteria of Adverse Effect, indicates an undertaking is considered to have an adverse effect when the impact on an historic property may

diminish the integrity of the location, design, setting, materials, workmanship, feeling, or association of the property. Adverse effects on historic properties include, but are not limited to:

- Physical destruction, damage, or alteration of all or part of the property;
- Isolation of the property from, or alteration of the character of the setting of the property when that character contributes to the qualification of the property for the NRHP;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- Neglect of a property resulting in its deterioration or destruction; or,
- Transfer, lease, or sale of the property without adequate provisions to protect historic integrity.

The federal agency makes the determination of eligibility and determination of effect and requests concurrence on these determinations from the State Historic Preservation Officer (SHPO). If there will be adverse effects to eligible historic properties, mitigation measures are stipulated in a MOA signed by the federal agency and the SHPO. When a federal permit is involved, the federal agency makes compliance with the provisions of the MOA a permit condition.

In addition to the NHPA, cultural resources are protected by the Archaeological Resources Protection Act of 1979 (ARPA) (16 USC Sections 469-469c). ARPA describes the requirements that must be satisfied before federal authorities can issue a permit to excavate or remove any archeological resource on federal or Indian lands. Requirements for curation of artifacts, other materials excavated or removed, and the records related to the artifacts and materials are described. The act provides detailed descriptions of prohibited activities including damage, defacement, and unpermitted excavation or removal of cultural resources on federal lands. Selling, purchasing, and other trafficking activities of cultural resources in the U.S. or internationally is prohibited. ARPA also identifies stiff penalties that can be levied against convicted violators.

3.4.3.1.2 Ethnographic Resources

As prehistoric archaeological sites, artifacts, and human remains are considered important components of contemporary Native American heritage, and two federal statutes apply. The American Indian Religious Freedom Act of 1978 (42 USC Sections 1996-1996a) requires that locations identified as central to Native American religious practice be protected. The Native American Graves Protection and Repatriation Act of 1990 (25 USC Sections 3001-3013) requires that prehistoric human remains and burial-related artifacts of individuals recovered during ground disturbances be provided to those contemporary Native Americans who are recognized as descendants.

3.4.3.1.3 Paleontological Resources

There is no federal legislation designed specifically for the management and protection of paleontological resources on non-federal lands.

3.4.3.2 State Regulations

3.4.3.2.1 Archaeological and Historic Architectural Resources

CEQA Guidelines Section 15064.5(a.3) and California PRC Section 21084.1 define below the criteria used to determine the significance of cultural resources, characterized as "historic resources."

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

CEQA Guidelines (Section 15064.5[b], revised July 27, 2007) state that "a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." CEQA Guidelines list the following definitions:

- Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- The significance of an historical resource is materially impaired when a project:
  - Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR;
  - Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or,
  - Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

When an archaeological resource is listed in, or is eligible to be listed in, the CRHR, PRC Section 21084.1 requires that any substantial adverse effect to that resource be considered a significant environmental effect. PRC Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of the environmental analysis for a project. Either of these

benchmarks may indicate that a proposal may have a potential adverse effect on archaeological resources.

PRC Section 21084.1 states that an historical resource is a resource listed in, or is determined to be eligible for listing in, the CRHR, or listed in a local register of historical resources, or deemed significant pursuant to criteria identified in PRC Section 5024.1(g) defined above, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. The fact that a resource is not listed in, or is determined not to be eligible for listing in, the CRHR, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 does not preclude a lead agency from determining whether the resource may be a historical resource.

CEQA Guidelines Sections 15064.5 and 15126.4 guide the evaluation of impacts to prehistoric and historic archaeological resources. Section 15064.5(c) provides that, to the extent an archaeological resource is also a historical resource, the provisions regarding historical resources apply. These provisions endorse the first set of standardized mitigation measures for historic resources by providing that projects following the Secretary of the Interior's *Standards for Treatment of Historic Properties* (Weeks and Grimmer 1995) be considered as mitigated to a less than significant level.

PRC Section 21083.2 states that as part of conditions imposed for mitigation, a lead agency may make provisions for archaeological sites accidentally discovered during construction. These provisions may include an immediate evaluation of the find. If the find is determined to be a unique archaeological resource, contingency funding and a time allotment sufficient to allow recovering an archaeological sample or to employ one of the avoidance measures may be required under the provisions set forth in this section. Construction work may continue on other parts of the building site while archaeological mitigation occurs. Other state-level requirements for cultural resources management are written into the California PRC, Chapter 1.7, Section 5097.5 (Archaeological, Paleontological, and Historical Sites).

CEQA Guidelines Section 15064.5 (revised July 27, 2007) indicates a project may have a significant environmental effect if it causes "substantial adverse change" in the significance of an "historical resource" or a "unique archaeological resource," as defined or referenced in CEQA Guidelines Section 15064.5 (b, c). Such changes include "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines 1Section 15064.5 [b]).

3.4.3.2.2 Ethnographic Resources

The disposition of Native American burials is governed by Section 7050.5 of the California Health and Safety Code and California PRC Sections 5097.94 and 5097.98, and falls within the jurisdiction of the Native American Heritage Commission (NAHC). Section 7052 of the Health and Safety Code establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives. Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains

are those of a Native American. According to California PRC Section 5097.98, if the NAHC is unable to identify a most likely descendant, the descendant fails to make a recommendation, or the descendant and landowner are not capable of reaching a mutually acceptable strategy through mediation by the NAHC, the Native American human remains and associated grave goods should be reburied with appropriate dignity on the proposed project site in a location not subject to further subsurface disturbance. The Health and Safety Code also specifies that six or more human burials at one location constitute a cemetery (Section 8100).

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historical or archaeological interest located on public or private lands, but specifically excludes the landowner. PRC Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, or historical, resources located on public lands.

3.4.3.2.3 Paleontological Resources

Paleontological resources are included in Appendix G of the CEQA Guidelines (Environmental Checklist Form) used to prepare a CEQA IS. Use of this checklist requires determining if a project will have a significant impact on unique paleontological resources.

Section 5097.5 of the California PRC prohibits excavation or removal of any "vertebrate paleontological site or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands." Section 30244 requires reasonable mitigation of adverse impacts to paleontological resources from development on public land. Penal Code Section 623 spells out regulations for the protection of caves, including their natural, cultural, and paleontological contents. It specifies that no "material" (including all or any part of any paleontological item) will be removed from any natural geologically formed cavity or cave.

3.4.3.3 Local Regulations

3.4.3.3.1 Archaeological and Historic Architectural Resources

City guidelines for the protection of archeological resources are set forth in Section 3 of the *City of Los Angeles General Plan Conservation Element*, which, in addition to compliance with CEQA, requires the identification and protection of archaeological sites and artifacts as a part of local development permit processing. Specifically, LAMC Section 91.106.4.5 states that the Building Department:

> *"…shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated, or has been determined by state or federal action to be eligible for designation, on the National Register of Historic Places, or has been included on the City of Los Angeles list of historic cultural monuments, without the department having first determined whether the demolition, alteration or removal may result in the loss of or serious damage to a significant historical or cultural asset. If the department determines that such loss or damage may occur, the applicant shall file an application and pay all fees*

for the California Environmental Quality Act Initial Study and Check List, as specified in Section 19.05 of the LAMC. If the Initial Study and Check List identify the historical or cultural asset as significant, the permit shall not be issued without the department first finding that specific economic, social or other considerations make infeasible the preservation of the building or structure."

3.4.3.3.2 Historic Architectural Resources

Five types of historic protection designations apply in the City: 1) Historic-Cultural Monument designation by the Los Angeles Cultural Heritage Commission and approved by the City Council; 2) placement in the California Register; 3) placement in the NHRP (1980 NHPA); 4) designation by the Community Redevelopment Agency as being of cultural or historical significance within a designated redevelopment area; and, 5) classification by the City Council (recommended by the planning commission) as an Historic Preservation Overlay Zone (HPOZ). These designations help protect structures and support rehabilitation fund requests (City of Los Angeles 2001).

The Los Angeles Cultural Heritage Commission was established by ordinance in 1962 to protect and/or identify architectural, historical, and cultural buildings, structures, and sites of importance in the city's history and/or cultural heritage. The Los Angeles Cultural Heritage Commission has designated over 700 sites as Historic-Cultural Monuments, including historic buildings, corridors (tree-lined streets), and geographic areas. Historical resources may also include resources listed in the State Historic Resources Inventory as significant at the local level or higher, and those evaluated as potentially significant in a survey or other professional evaluation (City of Los Angeles 2001). The HPOZ provision of the zone code, LAMC Section 12.20.3, was adopted in 1979, and was amended in 2001. It contains procedures for designation and protection of areas that have structures, natural features, or sites of historic, architectural, cultural, or aesthetic significance. HPOZ areas contain significant examples of architectural styles characteristic of different periods in the city's history. No area within the Port has been designated as part of an HPOZ (City of Los Angeles 2001).

The significance of a historical resource is also based on the following: 1) whether the site has been coded by the Department of Building and Safety with a Zoning Instruction number in the 145 series (indicating prior identification of the property as historic); 2) whether the resource has been classified as historic in a historical resources survey conducted as part of the updating of the Community Plan, the adoption of a redevelopment area, or other planning project; 3) whether the resource is subject to other federal, state, or local preservation guidelines; 4) whether the resource has a known association with an architect, master builder or person or event important in history such that the resource may be of exceptional importance; and, 5) whether the resource is over 50 years old and a substantially intact example of an architectural style significant in Los Angeles.

The City of Los Angeles CEQA Guidelines criteria for historical architectural resources are provided below.

City of Los Angeles Historic-Cultural Monument Designation

In the City of Los Angeles, resources may be designated as Historic-Cultural Monuments under LAMC Sections 22.120, *et seq*. An historical or cultural monument is defined as:

> *"[A]ny site (including significant trees or other plant life located thereon), building or structure of particular historic or cultural significance to the City of Los Angeles, such as historic structures or sites in which the broad cultural, political, economic or social history of the nation, state or community is reflected or exemplified, or which are identified with historic personages or with important events in the main currents of national, state or local history, or which embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period style or method of construction, or a notable work of a master builder, designer, or architect whose individual genius influenced his age."*

City of Los Angeles Historic Preservation Overlay Zones

HPOZs are essentially locally designated historic districts or groupings of historical resources. As defined in Section 12.20.3.B.17 of the LAMC, a *Preservation Zone* is "any area of the City of Los Angeles containing buildings, structures, landscaping, natural features, or lots having historic, architectural, cultural, or aesthetic significance and designated as an HPOZ under the provisions of this section." Subsection 12.20.3 of the LAMC, which establishes the regulations that apply to HPOZs, requires that a historical resources survey be prepared, identifying all contributing and noncontributing elements. Under the HPOZ ordinance (LAMC Section 12.20.3), to be significant, structures, natural features, or sites within the involved area or the area as a whole would meet one or more of the following criteria:

- Have substantial value as part of the development, heritage, or cultural characteristics of, or is associated with the life of a person important in the history of the city, state, or nation;
- Are associated with an event that has made a substantial contribution to the broad patterns of our history;
- Are constructed in a distinctive architectural style characteristic of an era of history;
- Embody those distinguishing characteristics of an architectural type or engineering specimen;
- Are the work of an architect or designer who has substantially influenced the development of the city;
- Contain elements of design, details, materials or craftsmanship which represent an important innovation;

- Are part of or related to a square, park, or other distinctive area and should be developed or preserved according to a plan based on a historic, cultural, architectural or aesthetic motif;
- Owing to its unique location or singular physical characteristics, represent an established feature of the neighborhood, community or city; or,
- Retaining the structure would help preserve and protect a historic place or area of historic interest in the city.

3.4.3.3.3 Ethnographic Resources

Relative to ethnographic resources, the *L.A. CEQA Thresholds Guidelines* (City of Los Angeles 2006) state: "Consider compliance with guidelines and regulations such as the California PRC." No specific local regulations mandating the protection of ethnographic resources exist.

3.4.3.3.4 Paleontological Resources

City guidelines for the protection of paleontological resources are specified in Section 3 of the *City of Los Angeles General Plan Conservation Element*. The policy requires that paleontological resources in the city be protected for research and/or educational purposes. It mandates the identification and protection of significant paleontological sites and/or resources known to exist or that are identified during land development, demolition, or property modification activities.

3.4.4 Impacts and Mitigation Measures

3.4.4.1 Methodology

Impacts to cultural resources from the proposed Program were evaluated by determining whether the proposed appealable/fill projects and land use changes under the proposed Program could affect the following:

- Areas that contain or are likely to contain any archaeological or historical sites listed in or eligible for listing in the NRHP or the CRHR;
- Areas designated as a LAHCM;
- Areas included within a City of Los Angeles HPOZ; or,
- Areas that are otherwise considered a unique or important archaeological resource under CEQA.

In particular, impacts on significant or unique cultural resources from the proposed Program were evaluated by determining whether demolition, construction, or operational activities could affect areas that contain or could contain any significant or unique archaeological, paleontological, ethnographic, or historical resources.

3.4.4.2 Thresholds of Significance

The *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006) is the basis for the following significance criteria and for evaluating the significance of impacts on cultural resources resulting from the proposed Program. Cultural resource impacts would be significant under the following conditions:

CR-1: The proposed Program would disturb, damage, or degrade an archaeological resource or its setting that is found to be important under the criteria of CEQA because it:

- Is associated with an event or person of recognized importance in California or American history or of recognized scientific importance in prehistory;
- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;
- Has a special or particular quality, such as the oldest, best, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or,
- Involves important research questions that historical research has shown can be answered only with archaeological methods.

CR-2: The proposed Program would result in a substantial adverse change that would impair the significance of an historic resource that is found to be important because it:

- Is associated with an event or person of recognized importance in California or American history;
- Has associations with an architect, master builder or person or event important in history such that the resource may be of exceptional importance;
- Is over 50 years old and is a substantially intact example of an architectural style significant in Los Angeles (City of Los Angeles 2006); or,
- Is a significant historic resource under the applicable standards of federal, state or local law (City of Los Angeles 2006).

A substantial adverse change in significance would occur if the proposed Program would involve:

- Demolition of a significant resource;
- Relocation that does not maintain the integrity and significance of a significant resource;

- Conversion, rehabilitation, or alteration that does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; or,
- Construction that reduces the integrity or significance of important resources on the site or in the vicinity.

CR-3: The proposed Program would result in the permanent loss of, or loss of access to, a paleontological resource of regional or statewide significance (City of Los Angeles 2006).

3.4.4.3 Impacts and Mitigation

Impact CR-1: The proposed Program would not disturb, damage, or degrade archaeological or ethnographic resources, and thus cause a substantial adverse change in the significance of such resources as defined in §15064.5.

Planning Area 2

Construction

Recorded archaeological resources occur within or adjacent to Planning Area 2, and other unknown and unrecorded archaeological or ethnographic resources could be located within and adjacent to the planning area, especially along the outer perimeter near the former coastal shoreline. Therefore, any construction activities that entail ground disturbance could disturb, damage, or degrade intact archaeological or ethnographic resources and result in significant impacts to resources that may be eligible for listing in the NRHP or CRHR. Buried resources, including human remains, could be inadvertently unearthed during ground-disturbing activities, resulting in demolition of or substantial damage to significant archeological or ethnographic resources and thus creating a significant impact. Outside of the former shoreline, most of Planning Area 2 is underlain by artificial fill materials from prior dredging and construction activities and these fill soils have little likelihood of containing intact archaeological deposits.

For the proposed appealable/fill projects and associated land uses, the in-water fill activities associated with the Yang Ming Terminal Redevelopment and China Shipping Fill have little likelihood of impacting intact archaeological deposits because these areas have been previously disturbed by prior dredging and construction activities. By comparison, the Berths 187-189 Liquid Bulk Relocation Project and removal of the Berths 118-120 (Kinder Morgan) liquid bulk facility would have a greater likelihood of impacting archaeological deposits. In general, potential impact from land-based ground disturbance associated with any of the proposed appealable/fill projects and land use changes would depend on whether such activities occur within artificial fill materials (low likelihood of impact) or intact soil deposits (higher likelihood of impact). If construction activities disturbed, damaged, or degraded intact archaeological or ethnographic resources, this would result in significant impacts to resources that may be eligible for listing in the NRHP or CRHR.

Operations

The proposed Program would not result in any operations-related impacts on cultural resources within Planning Area 2 because no ground disturbances are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Planning Area 3

Construction

Most, if not all, of Planning Area 3 is underlain by artificial fill materials from prior dredging and construction activities, and therefore have little likelihood of containing intact archaeological deposits. For example, the proposed in-water fill activities associated with the Berth 300 Development Project has little likelihood of impacting intact archaeological deposits because this area has been previously disturbed by prior dredging and construction activities. Any land-based ground disturbance associated with the proposed appealable/fill projects and land use changes in Planning Area 3 have little likelihood of impacting intact archaeological deposits, but impacts cannot be discounted entirely. Potential impacts from land-based ground disturbance would depend on whether such activities occur within artificial fill materials (low likelihood of impact) or intact soil deposits (higher likelihood of impact). If construction activities disturbed, damaged, or degraded intact archaeological or ethnographic resources, this would result in significant impacts to resources that may be eligible for listing in the NRHP or CRHR.

Operations

The proposed Program would not result in any operations-related impacts to cultural resources within Planning Area 3 because no ground disturbances are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Planning Area 4

Construction

Planning Area 4 is underlain by artificial fill materials from prior dredging and construction activities, and therefore has little likelihood of containing intact archaeological deposits. Therefore, proposed land-based ground disturbance associated with the proposed appealable/fill projects and land use changes in Planning Area 4 have little likelihood of impacting intact archaeological deposits.

Operations

The proposed Program would not result in any operations-related impacts on cultural resources within Planning Area 4 because no ground disturbances are expected to occur during operations of the proposed appealable/fill projects or land use changes.

Impact Determination

Construction

The proposed Program could have an adverse impact on archaeological or ethnographic resources from construction activities associated with the proposed appealable/fill projects. This could result in significant impacts to resources that may be eligible for the NRHP or CRHR.

Operations

Operations of the proposed appealable/fill projects and land use changes associated with the proposed Program would result in less than significant impacts on archaeological or ethnographic resources.

Mitigation Measures

Because the PMPU area has recorded archaeological sites and the potential to contain unknown buried or otherwise obscured archaeological or ethnographic resources, mitigation may be required for construction activities. The following mitigation measures would be implemented, as applicable, for the proposed appealable/fill projects and land use changes under the proposed Program.

MM CR-1: Cultural Resource Assessment. Once a proposed project site is identified, the LAHD shall make a determination on whether a Cultural Resource Assessment is necessary based on considerations such as the extent of proposed ground disturbance and the potential for impacting intact soil deposits. If necessary, the potential for the presence of a unique archaeological or ethnographic resource shall be identified through a phased investigation using qualified professional consultants and a consistent methodology. When a Phase I investigation identifies the presence of or the potential for an archaeological or ethnographic resource on a proposed project site, the LAHD shall determine whether it is possible to avoid the resource through project redesign. If avoidance is not possible, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts:

- Conduct a Phase II investigation to determine site significance. When a Phase II investigation identifies a unique archaeological or ethnographic resource on a proposed project site, LAHD shall determine whether to avoid the resource through project redesign or to proceed with a Phase III investigation to mitigate impacts;
- Conduct archaeological monitoring of ground disturbing activities within potentially intact soil deposits by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards;
- Consult with the NAHC and applicable Native American groups (e.g., the Gabrielino Tongva Tribal Council) regarding proposed ground-disturbing activities and offer an opportunity to monitor the construction along with the project archeologist; and/or,

- Conduct a pre-construction information and safety meeting to make construction personnel aware of archaeological monitoring procedures, if any, and the types of archaeological resources that might be encountered.

MM CR-2: Unanticipated Discovery Procedures. In the event potentially significant cultural resources are encountered during earthmoving activities, the construction contractor shall cease activity in the affected area until the discovery can be evaluated by a qualified archaeologist in accordance with the provisions of CEQA Section 15064.5. The archaeologist shall complete any requirements for the mitigation of impacts on any resources and implement appropriate treatment measures, including the use of 1) subsurface testing after demolition of existing buildings, 2) data recovery of archaeological or ethnographic deposits, and/or 3) post-construction documentation.

Residual Impacts

Residual impacts would be less than significant.

Impact CR-2: The proposed Program would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

Planning Area 2

Construction

Historical resources exist within Planning Area 2 that are listed or eligible for listing in a federal, state, or local register. Therefore, construction associated with the proposed appealable/fill projects and land use changes could disturb, damage, or demolish historical resources. Impacts might include, but are not limited to, demolition or material alteration of known historic structures; structural reuse requiring rehabilitation, restoration, reconstruction, and/or additions; or new construction or in-fill that has the potential to change the local landscape, by modifying the setting of nearby resources. Potential development impacts might also be associated with changes made to previously unevaluated historical resources or resources that will achieve significance within the next 30 years. These types of impacts might result in a substantial adverse change in the significance of a historical resource.

Operations

The proposed Program would not result in any operations-related impacts on historical resources within Planning Area 2 because no ground disturbances or structural modifications are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Planning Area 3

Construction

Historical resources exist within Planning Area 3 that are listed or eligible for listing in a federal, state, or local register. Therefore, construction associated with the proposed appealable/fill projects and land use changes could disturb, damage, or demolish these historical resources. Impacts might include, but are not limited to, demolition or material alteration of known historic structures; structural reuse requiring rehabilitation, restoration, reconstruction, and/or additions; or new construction or in-fill that has the potential to change the local landscape, by modifying the setting of nearby resources. Potential development impacts might also be associated with changes made to previously unevaluated historical resources or resources that will achieve significance within the next 30 years. These types of impacts might result in a substantial adverse change in the significance of a historical resource.

Operations

The proposed Program would not result in any operations-related impacts on historical resources within Planning Area 3 because no ground disturbances or structural modifications are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Planning Area 4

Construction

Historical resources exist within Planning Area 4 that are listed or eligible for listing in a federal, state, or local register. Therefore, construction associated with the proposed appealable/fill projects and land use changes could disturb, damage, or demolish these historical resources. Impacts might include, but are not limited to, demolition or material alteration of known historic structures; structural reuse requiring rehabilitation, restoration, reconstruction, and/or additions; or new construction that has the potential to change the local landscape, modifying the setting of nearby resources. Potential development impacts might also be associated with changes made to previously unevaluated historical resources or resources that will achieve significance within the next 30 years. These types of impacts might result in a substantial adverse change in the significance of a historical resource.

Operations

The proposed Program would not result in any operations-related impacts on historical resources within Planning Area 4 because no ground disturbances or structural modifications are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Impact Determination

Construction

The proposed Program would have an adverse impact on historical resources from future construction associated with the proposed appealable/fill projects and land use changes that involve the relocation, conversion, rehabilitation, or alteration of an historical resource, or construction in the immediate surroundings of an historical resource. This would result in a substantial adverse change in the significance of a historical resource.

Operations

Operations of the proposed appealable/fill projects and land use changes associated with the proposed Program would result in less than significant impacts on historical resources.

Mitigation Measures

The following mitigation measures would be implemented, as applicable, for the proposed appealable/fill projects and land use changes under the proposed Program.

MM CR-3: Historical Resource Assessment. Once a proposed project site is identified, the LAHD shall make a determination on whether a Historical Resource Assessment is necessary to determine the presence of a historical resource, as defined under CEQA. If such an assessment determines that a historic resource is present, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts:

- A preservation architect meeting the Secretary of the Interior's Professional Qualifications Standards in historic architecture shall participate in preconstruction and construction monitoring activities to ensure continuing conformance with Secretary's Standards and/or avoidance of a material impairment of the historical resources;
- Complete photographic documentation of the historic resource prior to implementing the project. Such documentation shall adhere to standards and guidelines for Historical American Buildings Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscapes Survey (HALS) documentation, as outlined in the November 2011 HABS/HAER/HALS Guidelines set by the Heritage Documentation Programs instituted by the National Park Service (http://www.cr.nps.gov/hdp/standards/halsguidelines.htm). At a minimum, the level of photographic documentation shall be at the HABS/HAER Level II; and/or,
- For certain projects it may be necessary to establish an environmentally sensitive area and put up barriers to ensure the protection of specific built environment features, such as buildings, structures, and landscape and hardscape elements. The environmentally sensitive area shall be outlined on project plans and the construction crew must be made aware of restrictions and requirements for protecting historical resources for the duration of the project. A qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards may be required to monitor the project to ensure adherence to restrictions.

Residual Impacts

If projects involving the relocation, conversion, rehabilitation, or alteration of a historical resource, or alterations to the immediate surroundings of a historical resource, conform with the Secretary's Standards, then any impact on historical resources would be mitigated to be less than significant. Residual impacts would be less than significant.

Impact CR-3: The proposed Program would not disturb, destroy, or eliminate access to unknown unique paleontological resources.

Planning Area 2

Construction

Recorded paleontological resources occur within or adjacent to Planning Area 2, and other unknown and unrecorded unique paleontological resources could be located within and adjacent to this planning area. Therefore, any construction activities that entail ground disturbance could impact previously unidentified paleontological resources resulting in the potential for permanent loss of or loss of access to a paleontological resource of regional or statewide significance. Grading and excavation associated with construction activities would potentially expose subsurface paleontological resources. Any vertebrate fossils exposed by grading without appropriate professional, systematic recovery would be destroyed, and their ability to be preserved for future study would be lost.

Some parts of Planning Area 2 are constructed on artificial fill and have been extensively redeveloped over the years. For example, the proposed in-water fill activities associated with the Yang Ming Terminal Redevelopment and China Shipping Fill have little likelihood of impacting unique paleontological deposits because these areas have been previously disturbed by prior dredging and construction activities. Potential impacts from land-based ground disturbance associated with any of the proposed appealable/fill projects and land use changes would depend on whether such activities occur within artificial fill materials (low likelihood of impact) or intact soil deposits (higher likelihood of impact).

Operations

The proposed Program would not result in any operations-related impacts on unique paleontological resources within Planning Area 2 because no ground disturbances are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Planning Area 3

Construction

Most, if not all, of Planning Area 3 is underlain by artificial fill materials from prior dredging and construction activities, and these fill soils have little likelihood of containing unique paleontological resources. For example, the proposed in-water fill

activities associated with the Berth 300 Development Project have little likelihood of impacting unique paleontological resources because this area has been previously disturbed by prior dredging and construction activities. Any land-based ground disturbance associated with the proposed appealable/fill projects and land use changes in Planning Area 3 would have little likelihood of impacting unique paleontological resources, but impacts cannot be discounted entirely. Potential impacts from land-based ground disturbance would depend on whether such activities occur within artificial fill materials (low likelihood of impact) or intact soil deposits (higher likelihood of impact).

Operations

The proposed Program would not result in any operations-related impacts on unique paleontological resources within Planning Area 3 because no ground disturbances are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Planning Area 4

Construction

Planning Area 4 is underlain by artificial fill materials from prior dredging and construction activities, and these fill soils have little likelihood of containing unique paleontological resources. Therefore, proposed land-based ground disturbance associated with the proposed appealable/fill projects and land use changes in Planning Area 4 have little likelihood of impacting unique paleontological resources.

Operations

The proposed Program would not result in any operations-related impacts on unique paleontological resources within Planning Area 4 because no ground disturbances are expected to occur during operations associated with the proposed appealable/fill projects or land use changes.

Impact Determination

Construction

Proposed Program construction activities would have a potential for permanent loss of or loss of access to a paleontological resource of regional or statewide significance. Construction activities that disturbed, destroyed, or eliminated access to a unique paleontological resource would result in a significant impact.

Operations

Operations of the proposed appealable/fill projects and land use changes under the proposed Program would result in less than significant impacts on paleontological resources.

Mitigation Measures

Because the PMPU area has the potential to contain unknown buried or otherwise obscured paleontological resources, mitigation may be required. The following mitigation measures would be implemented, as applicable, for the proposed appealable/fill projects and land use changes under the proposed Program.

MM CR-4: Paleontological Assessment. Once a proposed project site is identified, the LAHD shall make a determination on whether a Paleontological Assessment is necessary based on such considerations as the extent of proposed ground disturbance and the potential for impacting intact soil deposits. If needed, the assessment shall identify the potential for the presence of a unique paleontological resource within the project area. If the assessment determines there is potential for the presence of a unique paleontological resource, the LAHD shall determine whether it is possible to avoid the resource through project redesign. If avoidance is not possible, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts:

- Conduct paleontological monitoring of ground disturbing activities within potentially intact soil deposits by a qualified paleontologist; or,
- Conduct a preconstruction information and safety meeting to make construction personnel aware of paleontological monitoring procedures, if any, and the types of paleontological resources that might be encountered.

MM CR-5: Unanticipated Discovery Procedures. In the event that a paleontological resource is encountered during construction, the contractor shall stop construction within 30 feet of the exposure and a qualified paleontologist shall evaluate the significance of the resource. Additional monitoring recommendations may be made at that time. If the resource is found to be significant, the paleontologist shall systematically remove and stabilize the specimen(s) in anticipation of preservation. Curation of the specimen shall be in a qualified research facility, such as the Los Angeles County Natural History Museum.

Residual Impacts

Residual impacts would be less than significant.

3.4.5 Summary Impact Determination

Table 3.4-3 summarizes the impact determinations of the proposed Program related to cultural resources. Identified potential impacts are based on federal, state, and City of Los Angeles significance criteria, Port criteria, and the scientific judgment of the report preparers.

For each type of potential impact, the table describes the impact, notes the impact determination, describes any applicable mitigation measures, and notes the residual impacts (i.e., the impact remaining after mitigation). All impacts, whether significant or not, are included in the table.

Table 3.4-3. Summary Matrix of Potential Impacts and Mitigation Measures for Cultural Resources Associated With the Proposed Program

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impact after Mitigation*
Construction			
CR-1: Construction of the proposed Program would not disturb, damage, or degrade archaeological or ethnographic resources, and thus cause a substantial adverse change in the significance of such resources as defined in §15064.5.	Significant	**MM CR-1: Cultural Resource Assessment.** Once a proposed project site is identified, the LAHD shall make a determination on whether a Cultural Resource Assessment is necessary based on such considerations as the extent of proposed ground disturbance and the potential for impacting intact soil deposits. If necessary, the potential for the presence of a unique archaeological or ethnographic resource shall be identified through a phased investigation using qualified professional consultants and a consistent methodology. When a Phase I investigation identifies the presence of or the potential for an archaeological or ethnographic resource on a proposed project site, the LAHD shall determine whether it is possible to avoid the resource through project redesign. If avoidance is not possible, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts: ▪ Conduct a Phase II investigation to determine site significance. When a Phase II investigation identifies an unique archaeological or ethnographic resource on a proposed project site, LAHD shall determine whether to avoid the resource through project redesign or to proceed with a Phase III investigation to mitigate impacts; ▪ Conduct archaeological monitoring of ground disturbing activities within potentially intact soil deposits by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards; ▪ Consult with the Native American Heritage Commission and applicable Native American groups (e.g., the Gabrielino-Tongva Tribal Council) regarding proposed ground-disturbing activities and offer an opportunity to monitor the construction along with the project archeologist; and/or, ▪ Conduct a preconstruction information and safety meeting to make construction personnel aware of archaeological monitoring procedures, if any, and the types of archaeological resources that might be encountered. **MM CR-2: Unanticipated Discovery Procedures.** In the event potentially significant cultural resources are encountered during earthmoving activities, the construction contractor shall cease activity in the affected area until the discovery can be evaluated by a qualified archaeologist in accordance with the provisions of CEQA Section 15064.5. The archaeologist shall complete any requirements for the mitigation of impacts on any resources and implement	Less than significant

Table 3.4-3. Summary Matrix of Potential Impacts and Mitigation Measures for Cultural Resources Associated With the Proposed Program

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impact after Mitigation*
		appropriate treatment measures, including the use of 1) subsurface testing after demolition of existing buildings, 2) data recovery of archaeological or ethnographic deposits, and/or 3) post-construction documentation.	
CR-2: Construction of the proposed Program would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	Significant	**MM CR-3: Historical Resource Assessment.** Once a proposed project site is identified, the LAHD shall make a determination on whether a Historical Resource Assessment is necessary to determine the presence of a historical resource, as defined under CEQA. If such an assessment determines that a historic resource is present, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts: ▪ A preservation architect meeting the Secretary of the Interior's Professional Qualifications Standards in historic architecture shall participate in preconstruction and construction monitoring activities to ensure continuing conformance with Secretary's Standards and/or avoidance of a material impairment of the historical resources; ▪ Complete photographic documentation of the historic resource prior to implementing the project. Such documentation shall adhere to standards and guidelines for HABS, HAER, and HALS documentation, as outlined in the November 2011 HABS/HAER/HALS Guidelines set by the Heritage Documentation Programs instituted by the National Park Service (http://www.cr.nps.gov/hdp/standards/halsguidelines.htm). At a minimum, the level of photographic documentation shall be at the HABS/HAER Level II; and/or, ▪ For certain projects it may be necessary to establish an environmentally sensitive area and put up barriers to ensure the protection of specific built environment features, such as buildings, structures, and landscape and hardscape elements. The environmentally sensitive area shall be outlined on project plans and the construction crew must be made aware of restrictions and requirements for protecting historical resources for the duration of the project. A qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards may be required to monitor the project to ensure adherence to restrictions.	Less than significant
CR-3: Construction of the proposed Program would not disturb, destroy, or	Significant	**MM CR-4: Paleontological Assessment.** Once a proposed project site is identified, the LAHD shall make a determination on whether a Paleontological Assessment is necessary based on such considerations as the extent of proposed ground disturbance and the potential for	Less than significant

Table 3.4-3. Summary Matrix of Potential Impacts and Mitigation Measures for Cultural Resources Associated With the Proposed Program

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impact after Mitigation*
eliminate access to unknown unique paleontological resources.		impacting intact soil deposits. If needed, the assessment shall identify the potential for the presence of a unique paleontological resource within the project area. If the assessment determines there is potential for the presence of a unique paleontological resource, the LAHD shall determine whether it is possible to avoid the resource through project redesign. If avoidance is not possible, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts: ▪ Conduct paleontological monitoring of ground disturbing activities within potentially intact soil deposits by a qualified paleontologist; or, ▪ Conduct a preconstruction information and safety meeting to make construction personnel aware of paleontological monitoring procedures, if any, and the types of paleontological resources that might be encountered. **MM CR-5: Unanticipated Discovery Procedures.** In the event that a paleontological resource is encountered during construction, the contractor shall stop construction within 30 feet of the exposure and a qualified paleontologist shall evaluate the significance of the resource. Additional monitoring recommendations may be made at that time. If the resource is found to be significant, the paleontologist shall systematically remove and stabilize the specimen(s) in anticipation of preservation. Curation of the specimen shall be in a qualified research facility, such as the Los Angeles County Natural History Museum.	
Operations			
CR-1: Operation of the proposed Program would not disturb, damage, or degrade archaeological or ethnographic resources, and thus cause a substantial adverse change in the significance of such resources as defined in §15064.5.	Less than significant	No mitigation is required	Less than significant

Table 3.4-3. Summary Matrix of Potential Impacts and Mitigation Measures for Cultural Resources Associated With the Proposed Program

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impact after Mitigation*
CR-2: Operation of the proposed Program would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	Less than significant	No mitigation is required	Less than significant
CR-3: Operation of the proposed Program would not disturb, destroy, or eliminate access to unknown unique paleontological resources.	Less than significant	No mitigation is required	Less than significant

3.4.6 Significant Unavoidable Impacts

No significant unavoidable impacts to cultural resources would occur as a result of implementation of the proposed Program.

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