



INTRODUCTION

1 This chapter presents background and introductory information for the Proposed Pacific
2 Los Angeles Marine Terminal Crude Oil Marine Terminal, Tank Farm Facilities, and
3 Pipelines Project (proposed Project), located on Pier 400 in the Port of Los Angeles
4 (“Port”). This chapter presents a summary of the project’s history; the authorities of the
5 Lead Agencies (United States Army Corps of Engineers [USACE] and the Los Angeles
6 Harbor Department [LAHD]) in preparing this Draft Supplemental Environmental Impact
7 Statement/Subsequent Environmental Impact Report (SEIS/SEIR); the scope and content
8 of the SEIS/SEIR; the key principles guiding the preparation of this document; and major
9 Port environmental initiatives that could influence the proposed Project.

10 This SEIS/SEIR has been prepared in accordance with the requirements of the National
11 Environmental Policy Act (NEPA) (42 United States Code [USC] 4341 et seq.), and in
12 conformance with the Council on Environmental Quality (CEQ) Guidelines and the
13 USACE NEPA Implementing Regulations. The document also fulfills the requirements of
14 the California Environmental Quality Act (CEQA) (California Public Resources Code
15 [PRC] 21000 et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14,
16 Division 6, Chapter 3, Sections 15000 et seq.). The USACE is the NEPA lead agency for
17 this proposed Project, and the LAHD is the CEQA lead agency.

18 This Draft SEIS/SEIR describes the affected resources and evaluates the potential impacts
19 to those resources as a result of building and operating the proposed Project. In this
20 document, the term “Proposed Project” is used in the same way as “Proposed Action” is
21 used under NEPA. The proposed Project and alternatives are described in detail in
22 Chapter 2. This SEIS/SEIR will be used to inform decision-makers and the public about
23 the environmental effects of the construction and operation of the proposed waterside,
24 terminal, and infrastructure improvements at Berth 408 and other sites; to describe and
25 evaluate reasonable alternatives to the proposed Project; and to propose mitigation
26 measures that would avoid or reduce the significant environmental effects of the proposed
27 Project.

1.1 Background

1.1.1 Project History and Environmental Documentation

1.1.1.1 Deep Draft Navigational Improvements Project

Anticipating the importance of containerized and liquid bulk shipping, the LAHD, Port of Long Beach, and the USACE conducted a study between 1981 and 1985 to evaluate the capacity of the San Pedro Bay Ports complex to accommodate cargo forecasts through the year 2020. This study, called “The 2020 Plan,” determined that accommodating the projected increase in throughput would require maximizing the use of all existing port lands and terminals, and construction and operation of approximately 2,400 acres (972 ha) of new land for new marine terminals. The USACE and LAHD continued the planning process, supported by additional economic forecasting (WEFA 1987, 1989, and 1991), and in 1992, prepared the *Deep Draft Navigation Improvements, Los Angeles and Long Beach Harbors, San Pedro Bay, California Final EIS/EIR* (Deep Draft FEIS/FEIR, USACE and LAHD 1992). That document analyzed, among other issues, the impacts of the creation of Pier 400 from dredge material and the subsequent construction and operation of a new liquid bulk terminal on the new Pier 400 land. LAHD approved the Deep Draft FEIS/FEIR on November 18, 1992, and the USACE issued a Record of Decision (ROD) on January 21, 1994.

The Deep Draft FEIS/FEIR envisioned three uses for Pier 400: 1) an area to relocate existing hazardous bulk facilities away from populated and sensitive use areas in accordance with the approved Port Risk Management Plan (LAHD 1983); 2) a site for a 150-acre (61-hectare [ha]) container terminal; and 3) a site for a new deep-draft liquid bulk marine terminal. The Deep Draft FEIS/FEIR recognized that expansion and additional improvements were needed to improve efficiencies in handling, storing, and transporting existing and forecasted cargoes, and to provide an area for relocation of hazardous cargo away from critical Port facilities and adjacent communities. It also recognized that national economic benefits and transportation cost savings would result from the use of larger vessels, reductions in transit time, and lower cargo handling costs. Therefore, as a result of creating the Pier 400 landfill for part of the Deep Draft project, irretrievable resources were committed by the LAHD. Over three miles of channel were dredged to a maximum depth of -85 ft mean lower low water (MLLW), and dredged material removed from channels was placed in an area of high-value marine habitat.

1.1.1.2 Pacific L.A. Marine Terminal Project

Circumstances have changed since approval of the Deep Draft FEIS/FEIR. The need to relocate existing hazardous facilities to Pier 400 no longer existed after the affected facilities modified operations or closed, or the nearby vulnerable resource closed, in each case eliminating the hazardous classification originally associated with the facilities (as described more fully in Section 2.5 of this document). The second use of Pier 400, for construction of a container terminal, was fulfilled when the Port certified the Pier 400 Container Terminal and Transportation Corridor Project SEIR (LAHD 1999) and approved a 480-acre (190 ha) container terminal which is presently being operated by the APM Terminal (Maersk-Sealand). However, the -85 ft MLLW channel leading from the

1 ocean to Pier 400, which was dredged specifically for deep-draft vessel operations,
2 remains unutilized for its original purpose because no crude oil terminal has been
3 constructed on Pier 400. The proposed Project would fill this need for a deep-draft
4 crude oil terminal within the Port, consistent with the original use of Pier 400 envisioned
5 in the Deep Draft FEIS/FEIR.

6 Although the proposed Project is consistent with the Deep Draft FEIS/FEIR, the changed
7 environmental and regulatory circumstances and the changed configuration of the
8 current proposed Project from the marine terminal configuration proposed in 1992 have
9 led the USACE and LAHD to prepare a Supplemental EIS and Subsequent EIR,
10 respectively. The USACE and the LAHD have prepared this Draft SEIS/SEIR to identify
11 and evaluate the potential environmental impacts associated with implementation of the
12 proposed Project. This document supplements the Deep Draft FEIS/FEIR, which is
13 herein incorporated by reference on a selective basis (as it applies to this Project), and
14 relevant elements of that Project are provided in Section 2.5 Alternatives. The text of
15 the current SEIS/SEIR is deemed to take precedence in case of any conflicting
16 statements concerning existing setting, Project description, and impacts.

17 CEQA (Section 21166) allows a lead agency to prepare a subsequent or supplemental
18 EIR to evaluate a project for which an EIR has already been prepared but for which
19 changes have occurred in either the project description or the circumstances under which
20 the project is being undertaken. According to CEQA Guidelines Section 15162, a
21 Subsequent EIR shall not be prepared unless the lead agency determines, on the basis of
22 substantial evidence in light of the whole record, that substantial changes are proposed in
23 the Project or substantial changes occur with respect to the circumstances under which
24 the Project is undertaken, either of which will require major revisions of the previous
25 EIR due to new or a substantial increase in significant environmental effects, or if new
26 information of substantial importance shows that the Project would have new or
27 substantially more severe significant effects. According to CEQA Guidelines Section
28 15163, a Supplemental EIR is prepared if any of these conditions is satisfied, but if only
29 minor additions or changes were to occur the previous EIR would adequately apply to
30 the proposed Project in the changed situation.

31 The development of a deep-draft marine oil terminal on Pier 400 is consistent with the
32 project that was originally envisioned and analyzed in the Deep Draft FEIS/FEIR and
33 therefore is not a major revision to the original project. The proposed Project is on land
34 that was created as a result of the environmental review and approvals that occurred
35 during the original Deep Draft FEIS/FEIR process. However, the LAHD is designating
36 this document as a Subsequent EIR (and the USACE is considering it a Supplemental
37 EIS) because it represents not simply an updating of the Deep Draft FEIS/FEIR, but a
38 full, project-specific EIR that tiers from the Deep Draft FEIS/FEIR.

39 Furthermore, with the submittal of the current Project application (no applications for
40 development of a deep-draft marine oil terminal were submitted in 1992) and the
41 associated development of a detailed Project description, new, potentially significant
42 impacts can be envisioned that were not foreseen in the 1992 Deep Draft FEIS/FEIR.
43 The Deep Draft Navigation Improvements Program FEIS/FEIR prepared by the USACE
44 and LAHD in 1992 assessed impacts resulting from the dredging of ship channels and
45 the placement of dredged materials to create the Pier 400 Landfill. That document
46 addressed, at a programmatic level, the construction/relocation of hazardous bulk
47 facilities and the construction of a container terminal and liquid bulk marine terminal.

1 Terminal developments were left for detailed assessment as specific development
2 projects arose. This SEIS/SEIR provides a project-specific assessment of the proposed
3 Project.

4 This document supplements information in the Deep Draft FEIS/FEIR related to the
5 current configuration of the Pier 400 site. New mitigation measures are developed in this
6 SEIS/SEIR that are specific to the present Project as proposed. Nonetheless, many of the
7 mitigation measures contained in the Deep Draft FEIS/FEIR are still applicable and must
8 be adopted by the proposed Project in addition to the new measures.

9 **1.1.2 Project Location and Brief Project Overview**

10 The LAHD operates the Port under the legal mandates of the Port of Los Angeles
11 Tidelands Trust (Los Angeles City Charter, Article VI, Sec. 601; California Tidelands
12 Trust Act of 1911) and the California Coastal Act (PRC Div 20 S30700 et seq.), which
13 identify the Port and its facilities as a primary economic/coastal resource of the State and
14 an essential element of the national maritime industry for promotion of commerce,
15 navigation, fisheries, and harbor operations. Activities should be water dependent and
16 give highest priority to navigation, shipping, and necessary support and access facilities
17 to accommodate the demands of foreign and domestic waterborne commerce. The
18 LAHD is chartered to develop and operate the Port to benefit maritime uses, and functions as
19 a landlord by leasing Port properties to more than 300 tenants.

20 Figure 1-1 shows the general vicinity of the proposed Project, and Figure 1-2 provides a
21 closer view of proposed Project site locations. The applicant, Pacific Los Angeles Marine
22 Terminal, LLC (PLAMT), proposes to develop a deep-water crude oil marine terminal
23 offloading facility (Marine Terminal) on Face C of Pier 400; a tank farm site (Tank Farm
24 Site 1) containing two transfer tanks, a surge tank, and a vessel fuel tank on Face D of Pier
25 400; a tank farm site (Tank Farm Site 2) on Terminal Island in the Port; pipelines that
26 would connect the Marine Terminal to the tank farm facilities; and pipelines that would
27 connect the tank farm facilities to both the ExxonMobil Southwest Terminal on Terminal
28 Island and the Ultramar/Valero Refinery located north of the Terminal Island Freeway and
29 south of Anaheim Street (see Figure 1-2). The proposed Project and alternatives are
30 described in detail in Chapter 2, Project Description.

31 PLAMT is a wholly-owned subsidiary of Plains All American Pipeline, L.P. (Plains).
32 Plains's business is the transportation, storage, and marketing of crude oil, refined
33 products and liquefied petroleum gas and other natural gas related petroleum products.
34 Plains and its subsidiaries own several pipeline systems in the vicinity of the proposed
35 Project, and the new pipelines that are proposed as part of the Project would connect to
36 the existing pipeline network.

37 The Marine Terminal would receive crude oil and partially refined crude oil (hereinafter
38 referred to collectively as "crude oil") on tanker vessels. In addition, the Marine
39 Terminal would receive barges carrying Marine Gas Oil (MGO), a marine vessel fuel.
40 The Marine Terminal would load MGO onto tanker vessels; this constitutes the only
41 loading that would occur at the facility. Other than unloading of MGO to be used for
42 tanker refueling, no finished petroleum products (gasoline, diesel fuel, jet fuel, etc.)

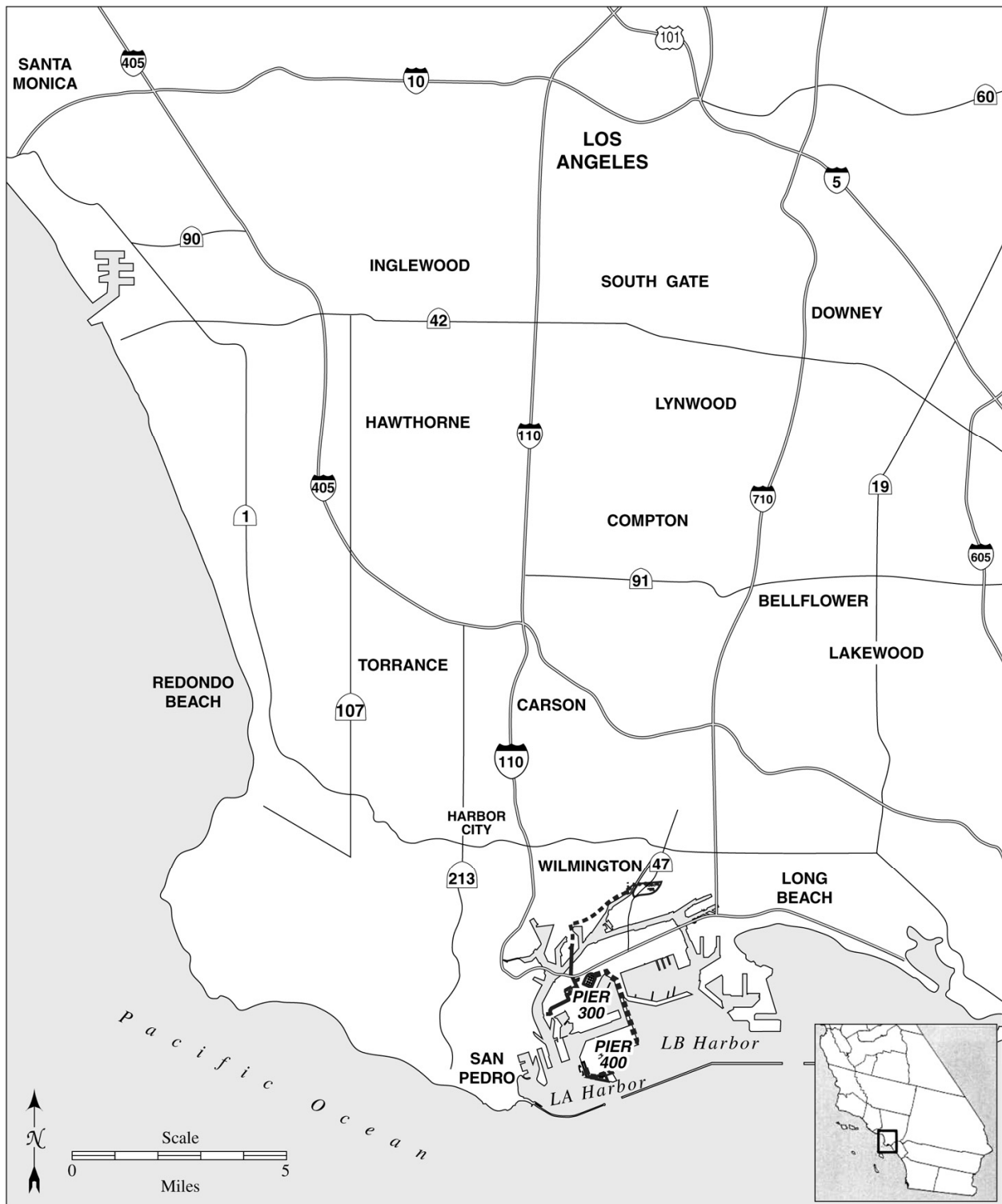


Figure 1-1. Regional Vicinity of the Proposed Project Site

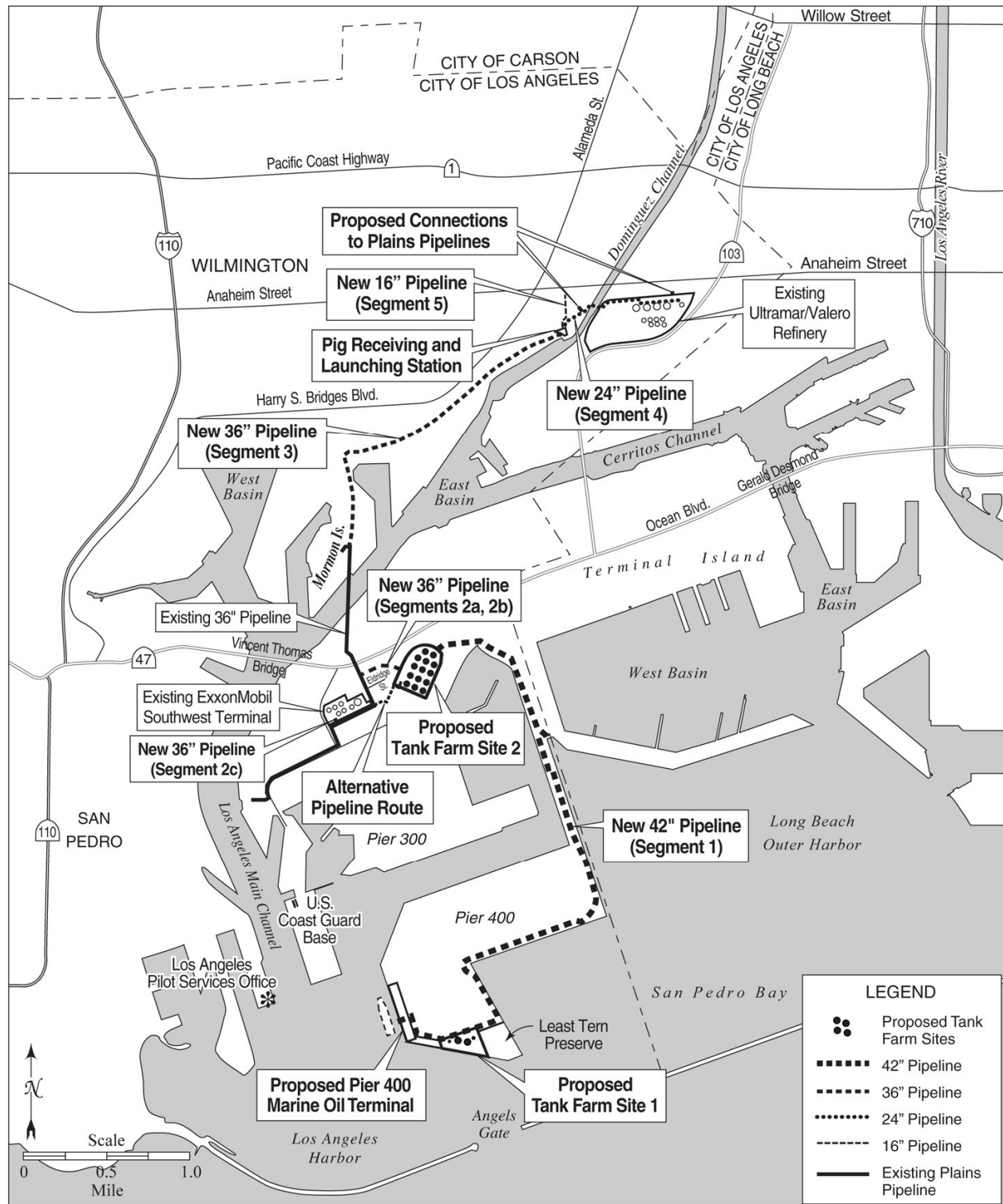


Figure 1-2. Proposed Project Site Locations

1 would be received at the terminal. Nearly all of the proposed Project, excepting only
2 small portions of the pipelines, would be built on land owned by the LAHD.

3 **1.1.3 Overview of Crude Oil Demand and Supply** 4 **in Southern California**

5 Crude oil in California is used predominantly to make transportation fuels for consumers
6 and businesses; no electricity in the state is generated using petroleum (CEC 2007a). As
7 the California Energy Commission (CEC) states in the 2007 Integrated Energy Policy
8 Report (IEPR) (CEC 2007b), “Californians require mobility to conduct their everyday
9 lives and attend to their business needs. For the most part, this mobility is achieved
10 through use of a petroleum-fueled vehicle. Travel demand is essentially a fixed
11 requirement for individual consumers of transportation goods and services in a state as
12 physically expansive as California, where distances are large and most metropolitan
13 areas are extensive and poorly served by public transit. Reducing public access to work,
14 recreation, and other travel cannot be achieved without disruption and economic loss.
15 Moreover, population growth translates directly into increases in aggregate travel
16 demand.”

17 Even as consumers demand mobility, California leads the nation in environmental
18 policies and initiatives to reduce energy consumption and increase the use of alternative
19 fuels. California Assembly Bill (AB) 1007 (Pavley, Chapter 371, Statutes of 2005)
20 directed the CEC, in partnership with the California Air Resources Board (CARB), to
21 develop a State Alternative Fuels Plan to increase the use of alternative fuels without
22 adversely affecting air pollution, water pollution, and public health. Released in
23 December 2007, the State Alternative Fuels Plan (CEC and CARB 2007) recommends a
24 combination of regulations, incentives, and market investments to achieve increased
25 penetration of alternative and non-petroleum fuels. The State Alternative Fuels Plan
26 describes strategies, actions, and mechanisms to concurrently address multiple state
27 policies (petroleum reduction, greenhouse gas (GHG) reduction, in-state biofuels
28 production and use goals, and state air quality goals) in an integrated fashion. To
29 accomplish the goal, the plan recommends multiple strategies which combine private
30 capital investment, financial incentives, and technology advancement approaches.

31 However, even with full implementation of the State Alternative Fuels Plan, CEC found
32 that “conventional petroleum fuels will be the main source of transportation energy for
33 the foreseeable future.... California must address its petroleum infrastructure problems
34 and act prudently to secure transportation fuels to meet the needs of our growing
35 population” (CEC 2007b). CEC stated further that “This should be viewed as a strategy
36 to allow time for the market and consumer behavior to adjust to alternative fuels and
37 transportation choices. During this transition, California must be innovative and
38 aggressive in finding more ways to make increased efficiency, greater renewable fuel
39 use, and smart land use planning the most desirable consumer options” (CEC 2007b).
40 Thus, the proposed Project would help meet California’s stated needs for transportation
41 energy facilities by providing critical infrastructure called for in the CEC’s Integrated
42 Energy Policy Reports since 2003 (see Section 1.1.3.3 for details).

43 Petroleum based fuels are and will continue to be a necessary part of California’s energy
44 portfolio. In the 2007 IEPR (CEC 2007a; CEC 2007b) the CEC recommends that

1 California continue with improving critical petroleum product import infrastructure,
2 particularly for crude oil, as well as related storage and onshore transportation facilities.
3 The proposed Project directly addresses part of this stated need. Expanding petroleum
4 related infrastructure is critical to meet California's transportation fuel needs, even with
5 pursuing aggressive strategies to use alternative fuels and reduce demand for all
6 transportation fuels (CEC 2007a; CEC 2007b).

7 The demand for crude oil in southern California is driven by consumer demand for
8 transportation fuels: gasoline, diesel, and jet fuel. About 79 percent of California's
9 refinery output in 2006 consisted of these fuels (the remainder of refinery output
10 includes heavier and lighter components such as petroleum coke, refinery gases, asphalt,
11 and tar) (CEC 2007c). Demand for transportation fuels is, in turn, a function of several
12 factors, including population, income, vehicle purchasing and driving habits, fuel prices,
13 rates of adoption of new technologies and alternative fuels, and GHG reduction rules and
14 standards. In addition to supplying southern California's transportation fuel needs, the
15 refineries operating in southern California also supply virtually 100 percent of
16 transportation fuels for Nevada and 60 percent for Arizona (CEC 2007a).

17 In 2005, California refineries processed 674 million barrels (bbl) of crude oil (1.8
18 million barrels per day [bpd]). Crude oil from foreign imports made up the largest share
19 of that amount (40.4 percent); California sources supplied 39.5 percent, and Alaska
20 North Slope (ANS) supplied 20.2 percent (CEC 2007c). Within southern California,
21 refineries processed 356 million bbl in 2005 (975 thousand bpd); 52 percent of this
22 supply was from foreign imports, 34 percent was from California sources, and 14
23 percent was from ANS (Baker & O'Brien 2007). However, crude production from
24 California and Alaska (as well as the rest of the U.S.) is decreasing. California crude
25 production peaked in 1985 and has declined by 39 percent since 1986; Alaskan crude
26 production peaked in 1988 and has declined 60 percent since that time (Figure 1-3).
27 These declines are expected to continue, as shown in Figure 1-4 (Baker and O'Brien
28 2007; CEC 2007a; CEC 2007b; CEC 2007c).

29 With the decline in domestic production has come an increase in foreign imports, which
30 arrive in the Los Angeles area after being transported via tanker vessels. Table 1-1
31 summarizes the five recognized size classes of tanker vessels in long-haul (i.e., trans-
32 oceanic) service. Typically, the company that owns the vessel does not own the crude oil
33 it carries; companies involved in the business of transporting crude contract with ship
34 owners to transport oil from producing regions to consuming regions.

35 In 2005, about 45 percent of foreign crude oil imports to southern California came from
36 the Middle East (i.e., Saudi Arabia, Iraq, Yemen, Oman, and Kuwait), and another 46
37 percent came from Central and South America. About 7 percent came from West Africa,
38 and about 2 percent came from Canada. The share of Middle Eastern imports has
39 increased steadily in recent years, a trend that is expected to continue (Baker & O'Brien
40 2007). Middle East imports generally arrive in VLCCs and Suezmax vessels because
41 larger vessels are more cost effective for longer voyages than smaller vessels. However,
42 as no crude oil terminals in Southern California are capable of accommodating a fully
43 loaded VLCC due to wharf and water depth restrictions, fully loaded VLCCs must
44 currently offload crude oil onto smaller vessels to transfer to the receiving terminal, a
45 process called lightering (described in detail below). Latin American and Canadian oil
46 transported to southern California is generally carried via Aframax tankers, while crude
47 originating in West Africa is usually shipped to southern California in Aframax and

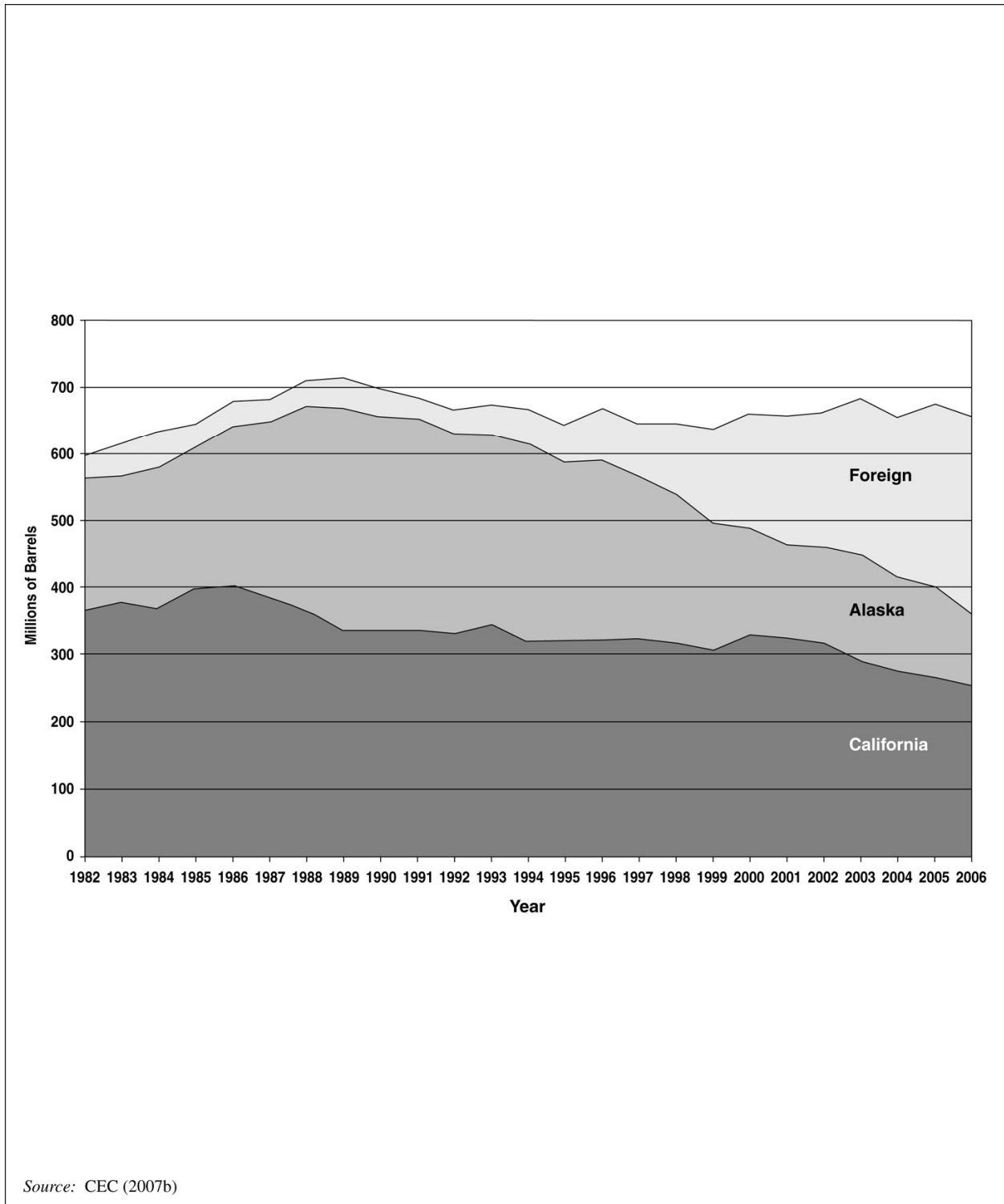


Figure 1-3. Crude Oil Supply Sources to California Refineries

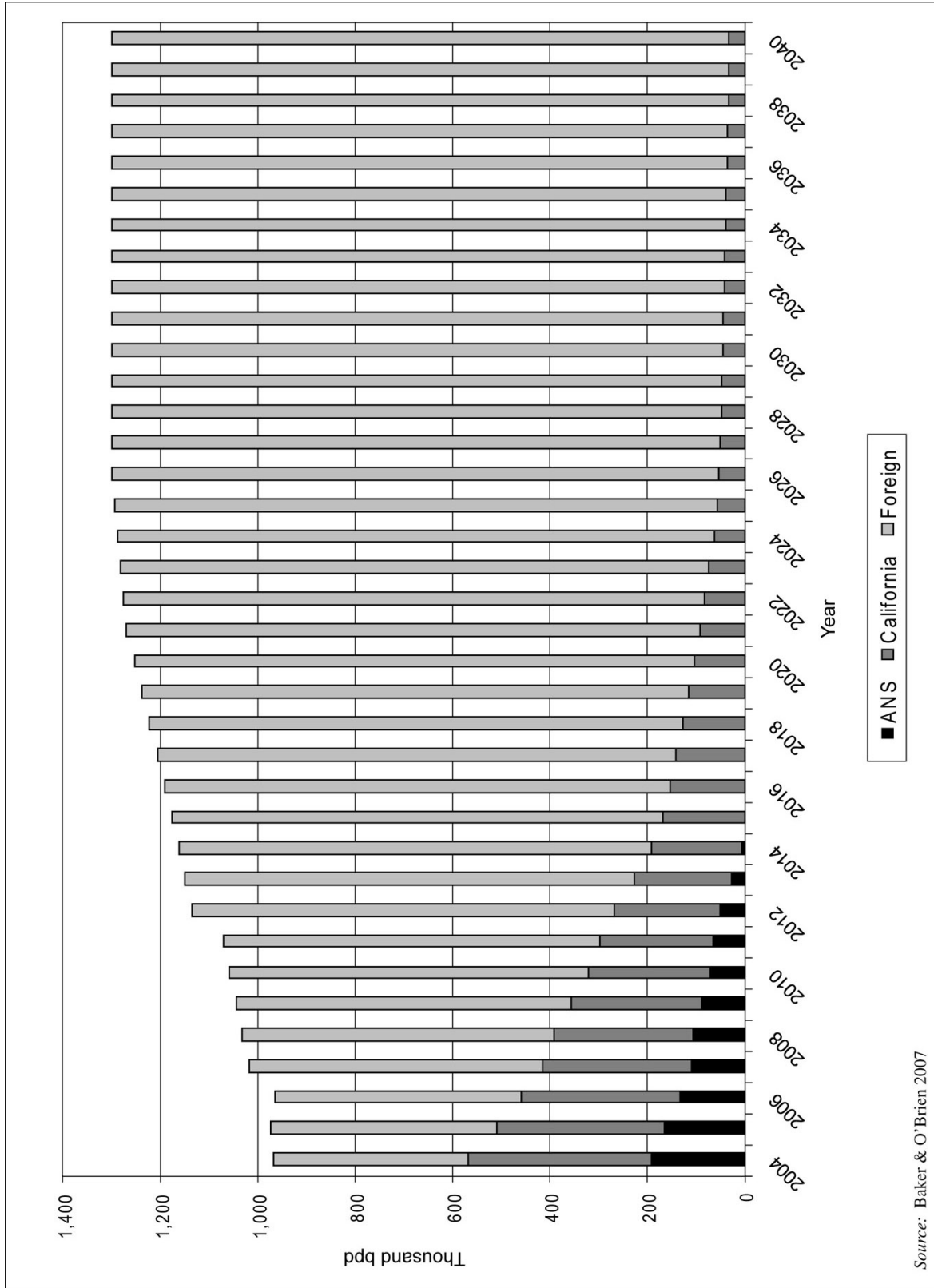


Figure 1-4. Projected Future Crude Oil Supply Sources for Southern California

Table 1-1. Classes and Characteristics of Oil Tankers

<i>Vessel Type</i>	<i>Length (ft)</i>	<i>Capacity (DWT)¹</i>	<i>Average Capacity (bbl)¹</i>	<i>Draft (ft)</i>
Panamax: The largest tanker that can travel through the Panama Canal.	726 - 797 (761 average)	60,000 - 70,000	350,000	38 - 45
Aframax: Tankers using the AFRA (Average Freight Rate Assessment) method to calculate transportation costs.	700 - 840 (797 average)	70,000 - 120,000	700,000	38 - 57
Suezmax: The largest tanker that can travel through the Suez Canal.	817 - 952 (896 average)	120,000 - 200,000	1,000,000	48 - 61
Very Large Crude Carrier (VLCC)	1,037 - 1,128 (1,091 average)	200,000 - 325,000	2,000,000	62 - 75
Ultra Large Crude Carrier (ULCC)	up to 1,500	325,000 - 550,000	4,000,000	up to 90

Sources: Hayes 2005; PLAMT 2007.
Note: 1. DWT (deadweight tons) measure the capacity for cargo; one DWT equals 2,240 pounds (one long ton); bbl = barrels (one barrel = 44 U.S. gallons).

1 Suezmax vessels. Panamax vessels also carry crude oil into southern California; they mainly
2 come from relatively close suppliers (e.g., Ecuador) and supply oil for the spot market.

3 The limited depths at existing berths force many larger vessels to be lightered offshore.
4 This process consists of the large vessel (“lightered vessel”) transferring a portion of its
5 cargo to a smaller vessel (“lightering vessel”). The lightering vessel comes from the port
6 empty, picks up cargo from the lightered vessel, returns to port to offload its cargo, then
7 returns to the lightered vessel for another load; the lightered vessel may or may not come
8 into port. In southern California, the transfer of cargo from the lightered to lightering
9 vessel occurs approximately 25 to 100 miles (40 to 160 km) offshore; and for safety and
10 stability, both vessels remain unanchored and moving under their own power while the
11 transfer of cargo occurs. The lightering process results in a larger number of smaller
12 vessels calling at San Pedro Bay than would be required if channel/berth depths allowed
13 larger vessels to call at existing berths.

14 Currently five terminals close to Los Angeles (Figure 1-5 and Figure 1-6; Table 1-2) are
15 capable of receiving crude oil: Berths 76-78, 84-87, and 121 in the Port of Long Beach,
16 Berths 238-240 in the Port of Los Angeles, and an offshore mooring facility off the coast
17 of El Segundo in Santa Monica Bay. Outside of these facilities, the nearest U.S.
18 terminals capable of receiving crude oil tankers are at the Port of Hueneme (Ventura
19 County) and the San Francisco Bay Area. However, the Port of Hueneme can
20 accommodate only barges, not tanker vessels, and is primarily designed to receive crude
21 oil from offshore platforms. Oil arriving into the San Francisco Bay Area is refined
22 within the area, and refineries in the Bay Area supply products to northern California,
23 northern Nevada, and Oregon, including approximately 35 percent of Oregon’s refined
24 products (CEC 2007a). In addition, the Bay Area petroleum import infrastructure is also
25 at or near capacity, and the maximum depth at berth available to tanker vessels is 50 feet
26 (CEC 2005). Crude oil pipelines currently transport California crude oil from the San
27 Joaquin Valley to the San Francisco Bay area and the Los Angeles Basin, but no
28 pipelines transport crude oil into California from neighboring states or from Mexico.

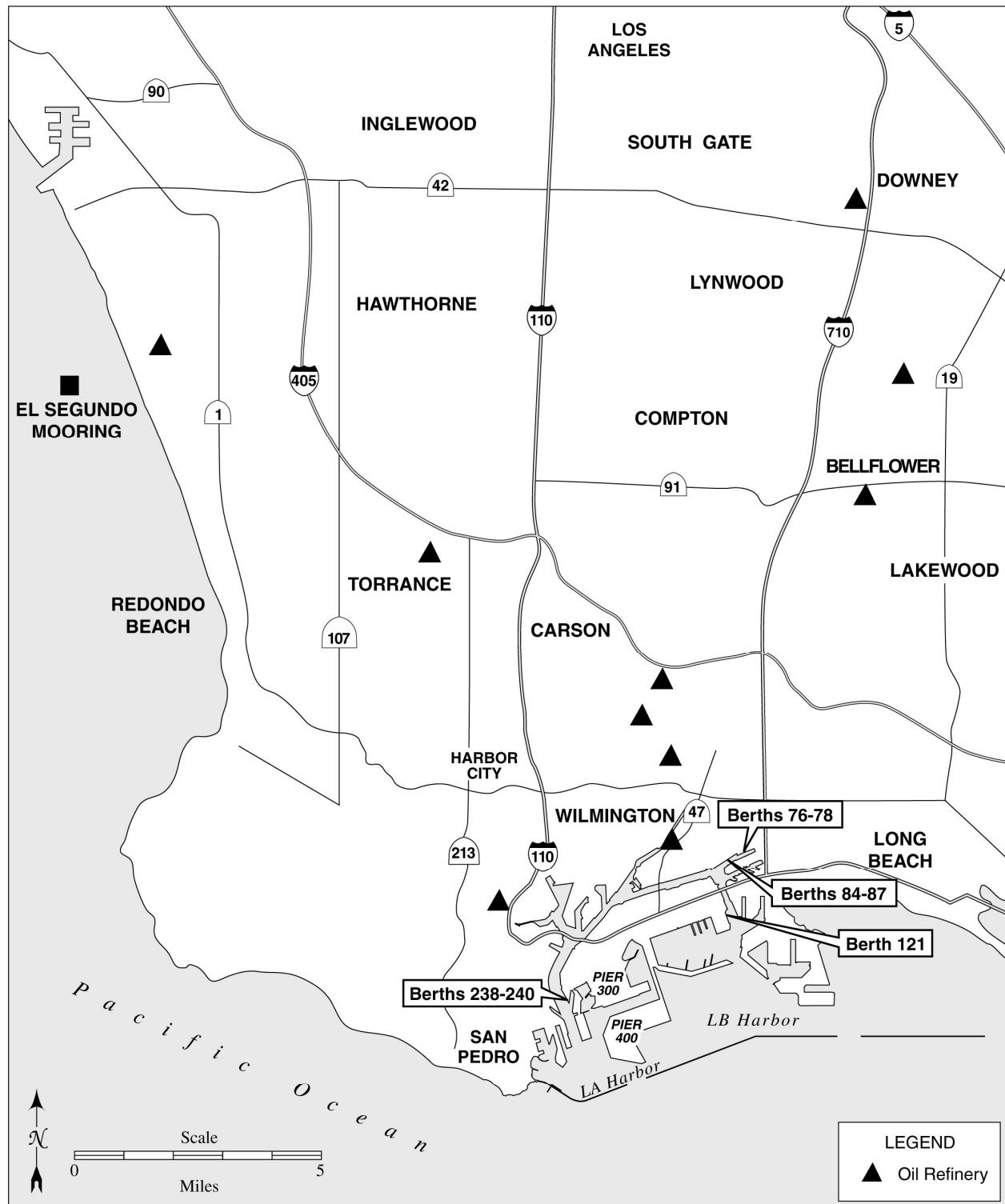


Figure 1-5. Petroleum Infrastructure in the Los Angeles Basin

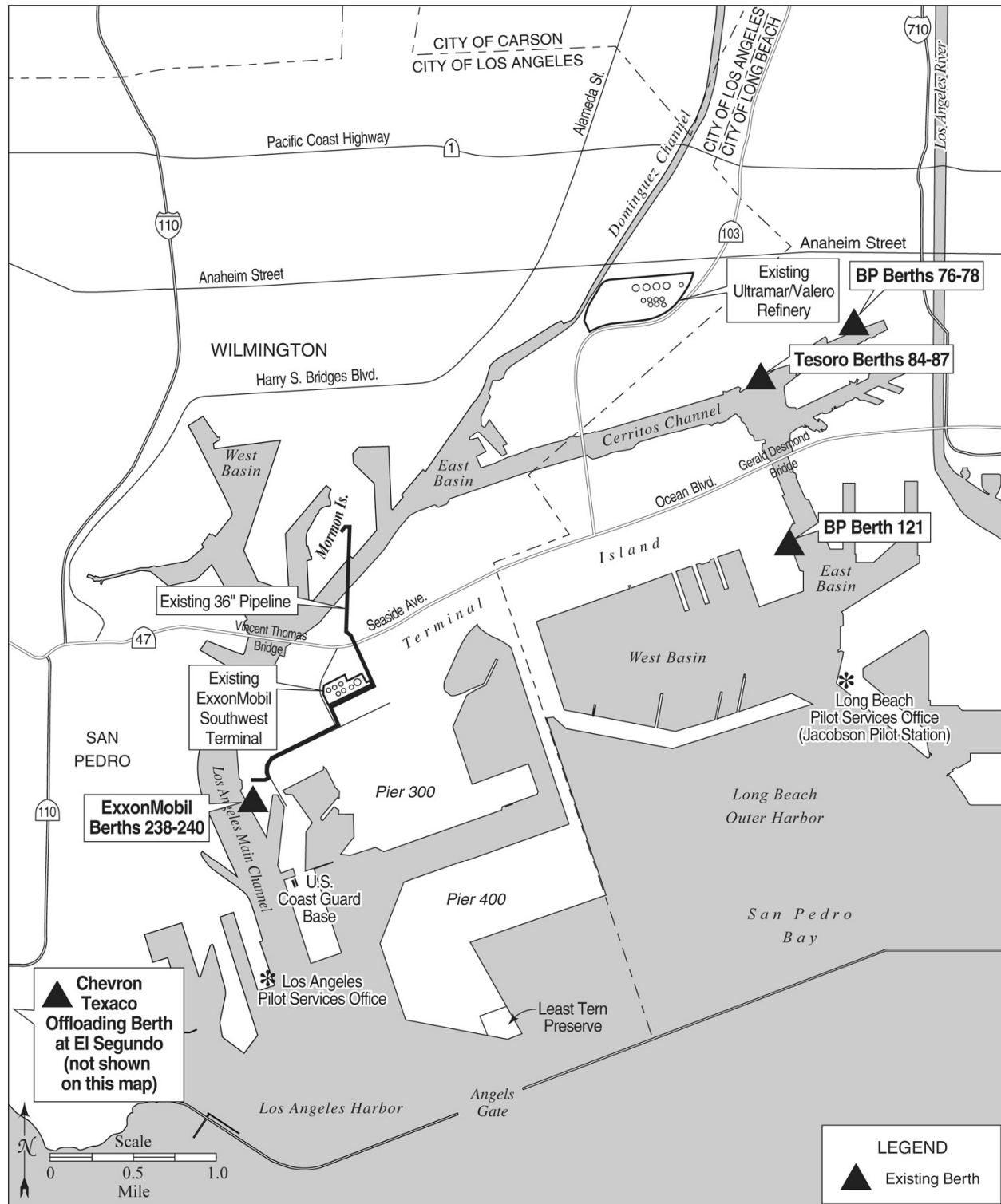


Figure 1-6. Active Crude Oil Offloading Berths, Ports of Los Angeles and Long Beach

Table 1-2. Existing Crude Oil Berths Near LA Basin

<i>Parameter</i>	<i>LAHD 238-240</i>	<i>POLB 76-78</i>	<i>POLB 84-87</i>	<i>POLB 121</i>	<i>El Segundo Mooring</i>
Crude oil discharged in 2004 (million bbl)	0	10	20	124	56
Average vessel calls per month	5-6	20-25	10-18	20	16-18
Maximum length of docking vessel (ft)	750	900	1,000	1,225	1,000
Maximum depth below MLLW (ft)	37	42	45	76	56
Highest capacity tanker vessel (DWT)	70,000	150,000	130,000	265,000	150,000
Estimated highest capacity tanker vessel (bbl) ¹	540,000	1,160,000	1,000,000	2,100,000	1,200,000
Year Built (latest major construction)	1922	1929 (1954)	1967	1982	1962 (1992)
Structural Assessment by CSLC ²	Poor	Good	Good	Good	Good
Primary Wharf Material	wood	n/a	concrete, wood	n/a	n/a
Operator	ExxonMobil	BP	Tesoro	BP	Chevron

Sources: CSLC 2007a, 2007b, 2007c, 2007d, 2007e, 2007f; Port of Long Beach 2007.

Notes:

POLB = Port of Long Beach
LAHD = Port of Los Angeles
n/a = Not available

- Estimated capacity of tanker vessels in bbl is based on converting DWT to bbl for light crude (API gravity of 40 degrees) (i.e., 7.75 bbl per DWT).
- CSLC recently assessed the structural integrity of California marine oil terminals as part of development of its new Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). The assessment is based on an inspection of conditions above the water line only. "Good" indicates that the structure appears to be in good condition and generally fit-for-purpose. "Fair" indicates the structure is probably fit-for-purpose, but upgrades would probably be required to protect the public health, safety and the environment. "Poor" indicates that the structure is probably not fit-for-purpose and will require major structural upgrades to facilitate the vessels currently calling at the wharf/pier (CSLC 2007g).

1.1.3.1 Oil Supply and Demand

As described above, Californians require mobility to conduct their everyday lives and attend to their business needs (CEC 2007b). In the 2007 IEPR the CEC recommends that California continue with improving critical petroleum product import infrastructure, particularly for crude oil, as well as related storage and onshore transportation facilities (CEC 2007a; CEC 2007b; CEC 2007c). The proposed Project directly addresses part of this stated need.

In 1982, California received 61 percent of its crude oil supplies from in-state production, 33 percent from the Alaska North Slope (ANS), and 6 percent from foreign sources. By 2006, the situation had changed, with in-state production making up 39 percent of crude oil processed by California refineries, ANS representing 16 percent, and foreign sources contributing 45 percent (CEC 2007d). In addition, due to the limited refining capacity in California, the state must import ten percent of its refined blending components and finished gasoline and diesel to meet the growing demand (CEC 2007b).

The determinants of consumer demand for transportation fuels include population growth, real income growth, vehicle miles traveled (VMT), market penetration of hybrid and alternative-fuel vehicles, and the number of on-road registered vehicles in

1 California, among other elements. The California Department of Finance (DOF) predicts
2 California's population and real per capita income will each grow by about 30 percent
3 between 2005 and 2030, an average of about 1 percent per year (CEC 2007b, CEC
4 2007c). From 2001 to 2005 the number of vehicles registered on California roads
5 increased by about 3 percent per year. Among the types of on-road vehicles, growth was
6 fastest for hybrid vehicles, nearly doubling every year; however, as of 2005 hybrids were
7 still a small proportion, just 0.3 percent, of on-road registered vehicles (CEC 2007c).
8 The CEC transportation fuel demand model projects that VMT and the number of on-
9 road registered vehicles in California will continue to increase through 2030, even under
10 conservative assumptions about greenhouse gas (GHG) regulations and high fuel prices.
11 The CEC predicts that demand for on-road gasoline could decrease depending on GHG
12 regulations and fuel prices; however, it predicts that demand for diesel and jet fuel will
13 increase regardless of GHG regulations and fuel prices, resulting in a net increase in
14 overall demand for transportation fuels within California (ranging from 0.51 percent per
15 year with high fuel prices and GHG regulations, to 1.43 percent per year with low fuel
16 prices and no GHG regulations; CEC 2007c). (Appendix D1 provides additional details
17 about transportation fuel demand predictions, including how recent GHG regulations are
18 incorporated into demand projections.)

19 With consumer demand for transportation fuels exceeding the capacity of refineries to
20 produce those fuels – as stated above, the state currently imports ten percent of its
21 refined blending components and finished gasoline and diesel to meet consumer demand
22 (CEC 2007b) – California's petroleum refineries continue to expand their distillation
23 capacity (i.e., the amount of crude oil they are able to refine) as part of the normal
24 process of doing business. This phenomenon, called “refinery capacity creep,” occurs as
25 refineries make process improvements in order to expand the capacity of their crude oil
26 distillation equipment (provided the expansion meets environmental guidelines and
27 permitting requirements, and if it can be justified as having a sufficient economic return)
28 (CEC 2007b). Refinery capacity creep is a worldwide phenomenon: refinery capacity
29 creep worldwide has averaged 1.4 percent per year since 1996; in the U.S., it has
30 averaged about 1.3 percent. Compared to the rest of the U.S. and the world, refinery
31 capacity creep in California has been relatively low in recent years, averaging 0.5
32 percent per year since 1996 (CEC 2007b).

33 Since consumer demand for transportation fuels exceeds the capacity of refineries to
34 produce them, both statewide and in southern California specifically, the demand for
35 marine crude oil deliveries to southern California is essentially a function of two factors:
36 the estimated rate of refinery distillation capacity increase (including refinery capacity
37 creep as well as infrastructure improvement projects to increase refinery distillation
38 capacity), and the estimated decline in California crude oil production. Baker & O'Brien
39 (2007), consulting for PLAMT, have forecasted southern California's demand for marine
40 deliveries of crude oil as a function of these two factors. Baker & O'Brien assume a
41 relatively high refinery capacity creep in early years, with lower refinery capacity creep in
42 later years (1.25 percent per year through 2021, 0.50 percent per year for 2022-2026, and
43 no change after 2026). In addition, the Baker & O'Brien (2007) forecast takes into account
44 an expected increase in refinery capacity in 2012 due to a planned refinery expansion. This
45 represents an additional gain of 50,000 bpd of refinery capacity. Baker & O'Brien assume
46 California production will decline at about 3.5 percent per year. Based on these
47 assumptions, Baker & O'Brien estimate that by 2040, the demand for marine crude oil
48 deliveries in southern California will increase by 677,000 bpd compared to 2004.
49 Figure 1–7 provides a graphical summary of the Baker & O'Brien projection.

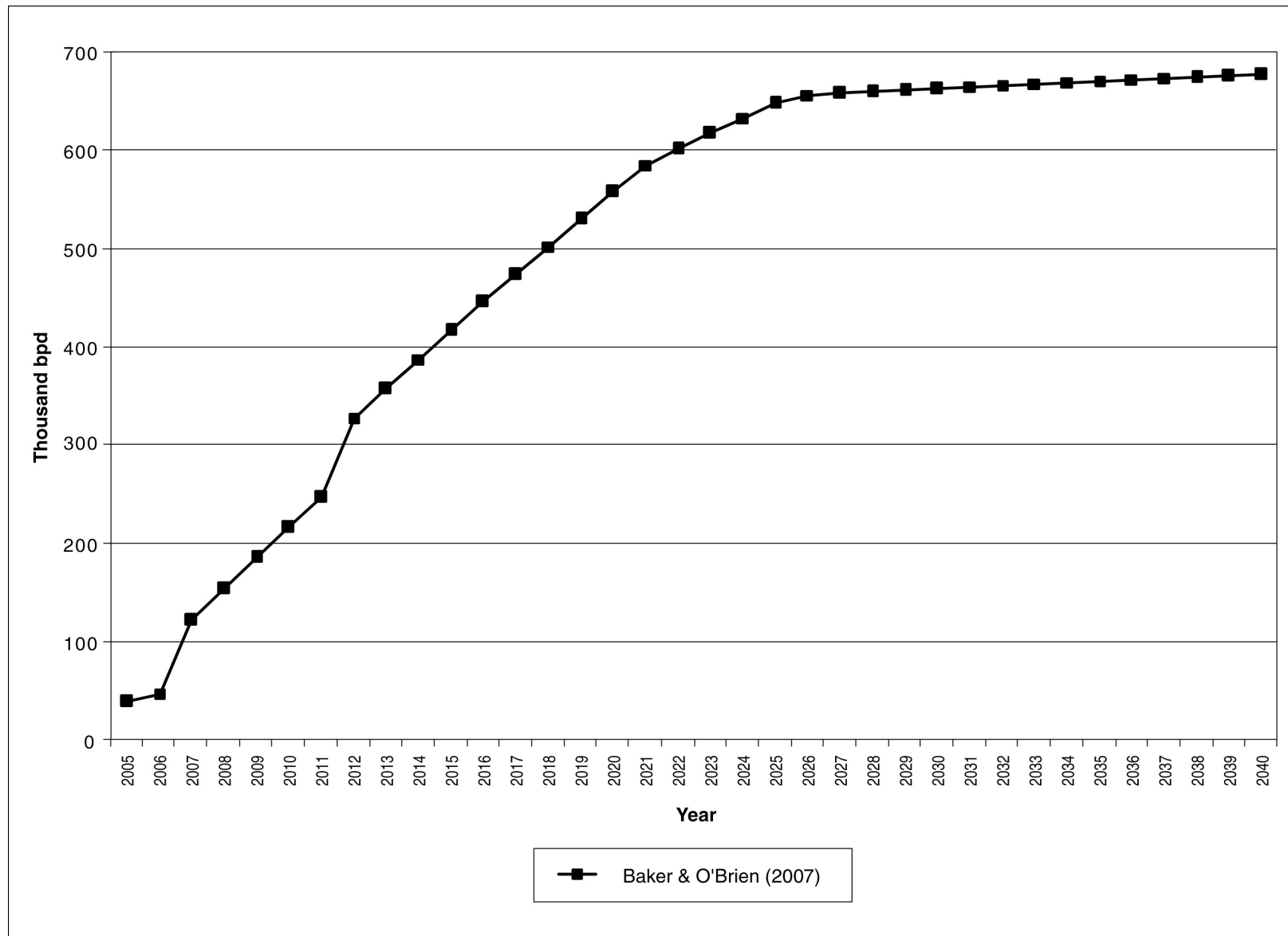


Figure 1-7. Projected Demand for Crude Oil Marine Imports to Southern California (Incremental Over 2004)

1.1.3.2 Trend toward Larger Vessels

Because no pipelines carry crude oil into California, by far the best method to deliver imported crude (including ANS crude) is by marine tanker vessels. (Theoretically, crude could be carried in rail cars or trucks, but in practice this would be cost prohibitive and would also result in greater environmental impacts; this issue is addressed further in Appendix D3.) Companies prefer to use larger vessels for crude oil imports wherever possible, for two reasons. First, there are economies of scale for long-haul voyages such as from the Middle East. Second, since larger vessels generally have higher offload rates, large vessels at deep-water berths can offload more crude oil in a given period than small vessels at shallower berths. For example, a 65,000 DWT marine vessel that draws 42 feet (12.8 meters [m]) of water depth fully laden would carry a cargo of 420,000 bbl (Table 1-1) and offload its cargo in approximately 24 hours. A vessel of that size could be handled at any of the liquid bulk berths in the two ports. A 325,000 DWT VLCC tanker that draws 74 feet (22.5 m) of water fully laden could carry a cargo of up to about 2.3 million bbl (depending on the characteristics of the oil), and the applicant represents that such a vessel could offload its cargo in about 28 to 30 hours (no operating berth in the San Pedro Bay ports can currently accommodate a vessel drawing that much water, however). Based on these estimates, it would take five smaller vessels a total of nearly five days to offload the same quantity of crude oil that a large vessel would offload in a little more than one day. In addition, it is worthwhile to note that larger tanker vessels burn less fuel per barrel of oil they carry, which means that they result in fewer vessel emissions per barrel delivered. (Section 3.2 Air Quality addresses vessel emissions in more detail.)

Given the depths at existing berths in the Los Angeles Basin, vessels carrying more than approximately 400,000 bbl bound for Port of Long Beach Berths 76-78 or 84-87, or LAHD Berths 238-240, must lighter cargo onto one or more vessels offshore, and vessels carrying more than about 1.7 million bbl bound for Port of Long Beach Berth 121 must also lighter cargo onto smaller vessels offshore.

With the shift toward more foreign imports, and especially from the Middle East, the economics of the crude oil industry will dictate a switch toward larger vessels. For instance, Baker & O'Brien (2007) project that whereas in 2004 approximately 21 percent of the 189 vessels delivering crude oil to southern California were by VLCCs, and that VLCCs carried 37 percent of the crude oil imported to southern California, in 2025 about 30 percent of vessel calls will be by VLCCs and that they will carry almost half of the crude oil imported to southern California.

1.1.3.3 Inadequate Berthing Capacity

The growing demand for water-borne imports of crude oil will result in increased offloading activities in the San Pedro Bay Ports. Baker & O'Brien (2007) do not specifically address the shortage of petroleum import infrastructure that will be necessary to support the increased offloading; however, the CEC has addressed this issue in recent IEPRs (CEC 2007a, CEC 2007b, CEC 2007c, CEC 2003b) as well as in a 2005 report evaluating California's petroleum infrastructure (CEC 2005). These reports indicate that infrastructure expansion is required to accommodate the projected increases. These reports also point out the potential for supply disruptions and higher and more prolonged price spikes due to the shortage of petroleum import infrastructure that

1 California faces as it attempts to accommodate the growing need to import foreign crude
2 oil by marine tankers. (Appendix D2 of this SEIS/SEIR provides additional information
3 related to the potential for price volatility for consumer transportation fuels.) Some
4 applicable sections of these reports are quoted below:

5 *“Unplanned outages at in-state refineries or pipeline facilities quickly tighten gasoline*
6 *and diesel supplies, creating price spikes. California is not connected by pipeline to*
7 *other domestic refining centers, and in-state refiners cannot readily procure gasoline,*
8 *diesel, and other blending components when outages occur. Relying on imports of*
9 *petroleum and finished product coming into the constrained import infrastructure*
10 *creates a market conducive to extreme price volatility. This contributes to higher and*
11 *more prolonged price spikes, as has been experienced in recent years.” (CEC 2007b)*

12 *“The increasing load on the existing crude oil import facilities means that the*
13 *diminishing spare import capacity could increase the risk of a significant fuel supply*
14 *problem should one of the larger crude oil import terminals (such as Berth 121 in Long*
15 *Beach) be temporarily out of commission for an extended period of time.” (CEC 2007c)*

16 *“The crude oil import facilities of Southern California could not accommodate the large*
17 *forecasted increase of imports and would require the construction of at least one large*
18 *new crude oil import facility” (CEC 2007c).*

19 *“Existing marine infrastructure could be diminished as a result of continued pressure to*
20 *remove petroleum facilities, especially in the Los Angeles Basin, and the requirements of*
21 *new State Lands Commission standards for petroleum marine terminals.” (CEC 2005)*

22 *“Over the next 20 years, California’s infrastructure will require expansion in petroleum*
23 *marine terminal capacity, marine storage, and the gathering pipelines that connect*
24 *marine facilities and refineries to the main product pipelines. Most of the expansion in*
25 *the marine terminal and marine storage capacity will be required in the Los Angeles*
26 *Basin.” (CEC 2005)*

27 *“Without increasing the fuel supply by importing additional crude oil and*
28 *transportation fuels, California will not only continue to experience supply disruptions*
29 *and price spikes, but also supply shortages and prolonged and elevated prices, for*
30 *gasoline fuels.” (CEC 2003b)*

31 *“The outlook for the next several years is that Very Large Crude Carrier (VLCC)*
32 *(transporting one to two million barrels) use will need to double from an average of one*
33 *to two ships per week due to greater reliance on foreign sources of crude oil. For this*
34 *reason, additional infrastructure improvements for berthing facilities as well as crude*
35 *oil storage tanks will need to be constructed.” (CEC 2003a)*

36 The CEC’s latest reports underscore conclusions of earlier CEC reports as well (CEC
37 2003a, 2003b) in which the CEC linked fuel supply disruptions and price spikes to the lack
38 of import infrastructure. Satisfying future demands will require major modifications to
39 existing facilities and/or the construction of a new deep-water berth and tanks to receive
40 the projected increase in imports. In doing so, supply disruptions and the associated
41 retail transportation fuel price spikes that are projected by the CEC (e.g., CEC 2007b)
42 can be minimized.

43 Currently, there are no developed berths in California with sufficient water depth to
44 accommodate a fully loaded VLCC vessel carrying 2 million or more bbl of cargo. The

1 limited number of existing berths and the relatively shallow water depths at those berths
2 are two major factors impacting future crude oil imports into southern California.

3 Furthermore, over the last three decades, the number of operating berths used to offload
4 crude oil for refineries in southern California has declined dramatically. In 1978 there
5 were 16 such berths, including eight at the Port, six at the Port of Long Beach, and two
6 open-water crude oil unloading mooring locations outside the two harbors. At present
7 there are only five: one at the Port, three at the Port of Long Beach, and one open-water
8 mooring location. The existing berths and mooring location are shown in Figures 1-5
9 and 1-6, and key characteristics are summarized in Table 1-2.

10 **1.1.3.4 Need for Increased Crude Oil Tank Capacity**

11 Over the past 15 years approximately 6 million bbl of petroleum storage tank capacity
12 has been removed from southern California (CEC 2007b). CEC (2007b) suggests that
13 even as California develops and implements its alternative fuels plans under AB 1007,
14 the additional crude oil storage tank capacity necessary by 2020 to meet California's
15 storage requirements ranges from 5 to 17 million bbl. This estimate does not include
16 additional storage tank capacity needed for refined products, including alternative fuels,
17 which CEC estimates as ranging from 5.4 million to 13.1 million bbl (CEC 2007b).

18 The need for increased crude oil storage tank capacity is driven by several factors,
19 including the need to reduce supply disruptions in consideration of longer ocean voyages
20 for import tankers; the need to offload larger cargo volumes; and the need to
21 accommodate multiple customers and types of crude oil. These factors are described
22 below.

23 **Additional Tanks to Reduce Supply Disruptions.** The replacement crude oil for declining
24 Alaska and California crude oil supplies will arrive on marine tankers from foreign crude
25 sources that are increasingly distant from southern California refineries. The transit time to
26 Los Angeles for Alaskan and South American crude oil is typically 7 to 10 days and is
27 generally much more predictable than a longer transit. The average transit time from the
28 Middle East is 38 days and much less predictable. With crude oil arriving on vessels
29 whose arrival date is less predictable, refiners will need to be able to store larger
30 volumes in order to minimize supply interruptions.

31 **Additional Tanks to Offload Increasingly Larger Cargo Volumes.** As more crude oil
32 is imported from the Middle East and other foreign sources, larger tankers will arrive at
33 southern California ports. As cargo volumes increase, it will become necessary to
34 increase the capacity of the tanks used to store the cargo during and immediately after
35 offloading.

36 Recent CEC reports support the need to construct additional crude oil tank capacity:

37 *“Additional storage tank capacity necessary to meet California’s product storage*
38 *requirements by 2020 ranges from 5.4 million to 13.1 million barrels and the*
39 *additional crude oil storage capacity needed ranges from five to 17 million barrels.*
40 *California must prepare for this range of additional storage capacity even as it*
41 *develops and implements its alternative fuels plans under AB 1007. Additional*
42 *infrastructure will be necessary to meet California’s transportation requirements,*

1 *even with alternative fuels meeting a greater percentage of those requirements.”*
2 (CEC 2007b)

3 *“The outlook for the next several years is that VLCC use will need to double from an*
4 *average of one to two ships per week due to greater reliance on foreign sources of*
5 *crude oil. For this reason, additional infrastructure improvements for berthing*
6 *facilities, as well as crude oil storage tanks will need to be constructed.”* (CEC
7 2003a)

8 **Supplies for Multiple Customers and Multiple Crude Types.** Local refineries
9 optimize their supply by looking for crude oil that matches the specifications that best fit
10 their processing units. Furthermore, because customers use different types of crude oil
11 and need to keep the specifications of the crude oil within certain ranges, extra tanks are
12 needed to segregate incoming crude oil types even when tank capacities are not fully
13 utilized. In addition, third-party tank facilities often use multiple tanks for the same type
14 of crude, even when tank capacities are not fully utilized, in order to track ownership by
15 volume and to maintain accurate crude oil custody records. The practices of maintaining
16 crude supplies within specified ranges and tracking crude oil custody will continue to
17 contribute to the need for additional crude oil tanks in the near term.

18 1.1.4 **General Description of Crude Oil Vessel** 19 **and Terminal Operations**

20 Modern tankers have a superstructure built above the main deck level; an engine room at
21 the stern of the vessel containing a single, very large diesel engine; and large pumps for
22 loading and unloading cargo; the cargo pumps are typically driven by power generated
23 by on-board steam boilers. The rest of the vessel is largely hollow to accommodate
24 cargo but is subdivided both along its width and across its length, partly to accommodate
25 different grades of oil, but also to minimize losses in case of a leak and to maintain
26 vessel stability in the face of cargo movement. The vessel is also equipped with separate
27 seawater ballast tanks, which are placed around the perimeter of the hull for protection
28 against spills in case of collision or grounding (Hayes 2005). The ballast stabilizes the
29 ship on return trips, and because tankers typically carry cargo only one way, vessels
30 importing crude oil to San Pedro Bay do not discharge ballast water, but instead take on
31 ballast water as the crude oil is discharged. Modern tankers are increasingly double-
32 hulled in compliance with the U.S. Oil Pollution Act of 1990, which requires that by
33 2015 only double-hull tankers be permitted in U.S. waters, and similar European Union
34 legislation. As a result, in 2005, 89 percent of the crude tanker calls and 72 percent of
35 refined product tanker calls at U.S. ports were by double-hull ships (US DOT MARAD
36 2006).

37 The prevalent fuel used in the engines and boilers of nearly all ocean-going vessels
38 today (tankers, container ships, dry bulk carriers, etc.) is a residual fuel known as Heavy
39 Fuel Oil (HFO). HFO has a worldwide average sulfur content of 2.7 percent by mass
40 (Entec 2002; Endresen et al. 2005), but can range as high as 6 percent sulfur. Effective
41 May 2005, an international convention limits the sulfur content of HFO to 4.5 percent.
42 Crude oil tankers typically operate using HFO fuel exclusively. Because HFO fuel is
43 highly viscous and requires constant heating, tankers carry lower sulfur, lighter fuels,
44 known as marine diesel oil or marine distillate oil (MDO) usually in a single auxiliary

1 tank or “day tank” to flush out HFO from the fuel lines when coming into dry dock to
2 prevent HFO solidification within the fuel system. MDO is not normally used by these
3 types of vessels for propulsion, for auxiliary power, or for offloading purposes.
4 Internationally, MDO is typically found with sulfur contents between 0.4 to 0.8 percent.
5 As of 2005, MDO had a worldwide average sulfur content of 0.52 percent by mass
6 (Endresen et al. 2005).

7 A modern crude oil terminal integrates physical components and operational processes.
8 The physical components consist of marine tanker vessels, berths/wharves, vessel
9 unloading equipment, pumps, pipelines, and tanks, as well as maintenance and
10 administrative buildings. The operational processes include unloading of the tankers,
11 pumping to/from tanks, and pumping to distribution pipelines and customers (e.g.,
12 refineries).

13 Vessels at berth offload crude oil from transfer arms that are connected from the shore to
14 the tanker’s pipe manifolds. Typically, the ship’s boilers provide the power to pump
15 cargo from the tanks over the ship’s rail to storage tanks; if shoreside pumps are used for
16 supplemental pumping power (e.g., as in the proposed Project analyzed in this
17 SEIS/SEIR), a shoreside surge tank serves to neutralize changes in pressure caused by
18 different pumping pressure between the ship’s pumps and shoreside pumps. From the
19 storage tanks, crude is pumped to refineries and then transported via pipeline, truck, or
20 rail car to commercial and industrial users and resellers. The shoreside distribution
21 systems are typically powered by large pumps, but it is not unusual for the vessel’s
22 pumps to pump the oil to storage tanks several miles inland.

23 Ships typically stay at the terminal for as few as 20 hours or as many as 36 hours,
24 depending on the size of the vessel and the speed of the offloading operation. During
25 this time, the ship’s main propulsion engine is shut down; auxiliary diesel-powered
26 generators are used to run lights, heating, air conditioning and hot water for the ship and
27 crew (“hoteling” functions). The pumps used to unload the cargo, meanwhile, are
28 powered by steam turbines driven by steam generated by the ship’s boilers.

29 **1.2 Purposes of an EIS and EIR**

30 This section provides an overview of NEPA and CEQA, which respectively require the
31 preparation of an EIS or an EIR for projects that could significantly affect the
32 environment.

33 **1.2.1 NEPA and the Purpose of an EIS**

34 NEPA was enacted by Congress in 1969 and requires federal agency decision makers to
35 document and consider the environmental implications of their actions or decisions, with
36 the intent of helping public officials make decisions that are based on understanding of
37 environmental consequences, and take actions that protect, restore, and enhance the
38 environment. When a federal agency determines that a proposed project could result in
39 significant environmental effects, an EIS is prepared that provides full and fair
40 discussion of anticipated significant environmental impacts. The EIS informs decision
41 makers and the public of the reasonable alternatives that would avoid or minimize
42 significant impacts or enhance the quality of the human environment. An EIS is not

1 only a disclosure document, it is a decision-making aid that is used by federal officials in
2 conjunction with other relevant material to plan actions and make decisions.

3 As described more fully in Section 1.1.1, a Supplemental EIS is required when an
4 agency makes substantial changes in the proposed action that are relevant to
5 environmental concerns, or there are significant new circumstances or information
6 relevant to environmental concerns and bearing on the proposed action or its impacts
7 (NEPA Sec. 1502.9(c)).

8 **1.2.2 CEQA and the Purpose of an EIR**

9 CEQA was enacted by the California Legislature in 1970 and requires public agency
10 decision makers to consider the environmental effects of their actions. When a state or
11 local agency determines that a proposed project has the potential to significantly affect
12 the environment, an EIR is prepared. The purpose of an EIR is to identify significant
13 effects of a proposed project on the environment, to identify alternatives to the project,
14 and to indicate the manner in which those significant effects can be mitigated or avoided.
15 A public agency must mitigate or avoid significant environmental impacts of projects it
16 carries out or approves whenever it is feasible to do so. In instances where significant
17 impacts cannot be avoided or mitigated, the project may nonetheless be carried out or
18 approved if the approving agency finds that economic, legal, social, technological, or
19 other benefits outweigh the unavoidable significant environmental effects.

20 As described more fully in Section 1.1.1, CEQA Guidelines Section 15162 specify that a
21 Subsequent EIR shall be prepared only if the lead agency determines, on the basis of
22 substantial evidence in light of the whole record, that:

- 23 • substantial changes are proposed in the Project; or substantial changes occur
24 with respect to the circumstances under which the Project is undertaken, either
25 of which will require major revisions of the previous EIR due to new or a
26 substantial increase in significant environmental effects; or
- 27 • new information of substantial importance shows that the Project will have new
28 or substantially more severe significant effects.

29 **1.3 Lead, Responsible, and Trustee** 30 **Agencies**

31 The USACE and the LAHD are the Lead Agencies for evaluating potential impacts and
32 proposing mitigation measures under NEPA and CEQA, respectively. The USACE and
33 the LAHD have prepared this joint Draft SEIS/SEIR to optimize efficiency and avoid
34 duplication of effort.

35 Several other agencies have special roles with respect to the proposed Project and may
36 use this SEIS/SEIR as the basis for their decisions to issue any approvals and/or permits
37 that might be required. Section 15381 of the CEQA Guidelines defines a “responsible
38 agency” as:

1 ...a public agency which proposes to carry out or approve a project, for which a lead
 2 agency is preparing or has prepared an EIR or negative declaration. For the purposes
 3 of CEQA, the term “responsible agency” includes all public agencies other than the
 4 lead agency which have discretionary approval power over the project.

5 Section 15386 of the CEQA Guidelines defines a “trustee agency” as:

6 ...a state agency having jurisdiction by law over natural resources affected by a project
 7 which are held in trust for the people of the State of California.

8 Table 1-3 lists responsible and trustee federal, state, regional, and local agencies that
 9 may rely on this Draft SEIS/SEIR in a review capacity or as a basis for issuance of a
 10 permit for the proposed Project or for related actions.

Table 1-3. Agencies Expected to Use this SEIS/SEIR

Agency	Responsibilities, Permits, and Approvals
FEDERAL	
U.S. Army Corps of Engineers (USACE)	Lead federal agency for implementation of NEPA for the proposed Project. Responsible for navigational improvements in waters of the U.S., and permitting authority for work and structures in navigable waters and the discharge of dredged or fill material in waters of the U.S. A USACE permit pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the River and Harbor Act (RHA) would be required for the proposed Project.
National Oceanographic and Atmospheric Association (NOAA)/ National Marine Fisheries Service	Trustee agency that reviews federal actions including issuance of permits, and submits recommendations to the USACE in accordance with the Fish and Wildlife Coordination Act (FWCA). Also responsible for Essential Fish Habitat (EFH) under the Magnuson Stevens Fishery Conservation and Management Act. Provides EFH information, reviews potential effects of federal actions on EFH, and provides conservation recommendations to the USACE through consultation. The proposed Project requires an EFH assessment and consultation with NOAA.
U.S. Fish and Wildlife Service (USFWS)	Trustee agency that reviews and submits recommendations to the USACE related to federal construction actions and issuance of permits in accordance with the U.S. Fish and Wildlife Coordination Act and consultation pursuant to Section 7 of the Endangered Species Act (ESA). The proposed Project requires ESA Section 7 consultation with the U.S. Fish and Wildlife Service.
U.S. Coast Guard (USCG)	Responsible agency with jurisdiction over marine facilities, bridges, and vessel transportation in harbor waters. Responsible for ensuring safe navigation and for preventing and responding to oil or hazardous materials releases in the marine environment. The proposed Project would require approvals from the U.S. Coast Guard related to vessel operations and oil spill prevention and response measures.
U.S. Environmental Protection Agency (USEPA)	Trustee agency, for this project. Has primary responsibility for implementing the Clean Air Act (CAA) and works with other federal agencies to implement conformity requirements. Reviews and submits recommendations for Spill Prevention Control and Countermeasures Plan (SPCC) and for non-transportation related onshore and offshore facilities engaged in storing, processing, refining, transferring, distributing, or consuming oil and gas products. Reviews and submits recommendations to the USACE related to federal construction actions and issuance of USACE permits, which would be required for the proposed Project.

Table 1-3. Agencies Expected to Use this SEIS/SEIR (continued)

Agency	Responsibilities, Permits, and Approvals
STATE	
California Coastal Commission (CCC)	Responsible agency reviewing environmental documentation to assure compliance with the Coastal Zone Management Act (CZMA) and consistency with the California Coastal Act; also performs a federal Consistency Determination. The proposed Project will require a federal Consistency Determination and, as a major coastal energy-related facility, is appealable to the Coastal Commission.
California State Lands Commission (CSLC)	Trustee agency with oversight responsibility for tidal and submerged lands legislatively granted in trust to local jurisdictions. Has adopted regulations for the design, maintenance, and operation of marine terminals (Marine Oil Terminal Engineering and Maintenance Standards, or MOTEMS). The CSLC inspects and monitors all marine facilities for effects on public health, safety, and the environment, which would include the proposed PLAMT Crude Oil Marine Terminal. The proposed Project would be built to meet the requirements of MOTEMS.
California Department of Fish and Game (CDFG)	Trustee agency with jurisdiction over marine wildlife and habitat resources in California waters. Reviews and submits recommendations in accordance with CEQA. The proposed Project would include consultation in accordance with the Fish and Wildlife Coordination Act and the Memorandum of Agreement (MOA) between the U.S. Fish and Wildlife Service, the California Department of Fish and Game, U.S. Army Corps of Engineers (USACE), and LAHD (City of Los Angeles et al. 2006).
California Department of Transportation (Caltrans)	Responsible agency with permitting authority, under the Streets and Highways Code, for road crossings and signage on transportation routes affected by pipeline construction activities.
California Office of Historic Preservation	Trustee agency that consults under Section 106 of the National Historic Preservation Act with state and federal lead agencies regarding impacts on cultural resources (e.g., demolition of buildings and structures) that are either listed, or eligible for listing, on the National Register of Historic Places. The proposed Project is not expected to require Section 106 consultation with the State Historic Preservation Officer (SHPO).
California Department of Mines and Tunneling	The proposed Project would require a boring permit (for bored pipelines over 30 inches diameter).
California Department of Toxic Substances Control	Regulatory agency responsible for issuance of a Hazardous Waste Generator ID Registration (DTSC Form 1358 or USEPA Form 8700-12) for management of wastes generated by construction and by routine operations.
REGIONAL	
South Coast Air Quality Management District (SCAQMD)	Responsible agency with permitting authority for construction and operation of pump stations, storage tanks, and terminal facilities; activities involving hydrocarbon-containing soils (Rule 1166); and new or modified sources of air emissions (New Source Review). The proposed Project would require air quality Permits to Construct and Permits to Operate.
Regional Water Quality Control Board, Los Angeles Region (LARWQCB)	Responsible agency with permitting authority to issue Waste Discharge Requirements for discharges that may affect surface or ground water, National Pollutant Discharge Elimination System (NPDES) permit for discharge of wastewater into surface waters, and Water Quality Certifications under Section 401 of the Clean Water Act. Has jurisdiction over storm water permits. The proposed Project would require a Section 401 Water Quality Certification from the Los Angeles Regional Water Quality Control Board (LARWQCB) and a General Industrial Activities Storm Water permit, General Construction Dewatering Permit, and General Hydrostatic Test Water Discharge Permit under the NPDES.
Southern California Association of Governments (SCAG)	Trustee agency responsible for developing regional plans for transportation and federal conformity, as well as developing the growth factors used in forecasting air emissions in the South Coast Air Basin.

Table 1-3. Agencies Expected to Use this SEIS/SEIR (continued)

Agency	Responsibilities, Permits, and Approvals
LOCAL	
Los Angeles County Department of Public Works (Flood Control District)	Responsible for the construction and operation of water supply, flood control, water quality, and water conservation facilities. The proposed Project would require an Encroachment Permit for the proposed pipeline crossing of the Dominguez Channel.
City of Los Angeles City Council	City Council legislative body that would review any appeal to certification of the EIR by the LAHD; reviews and approves leases, permits, and other approvals.
City of Los Angeles Harbor Department (LAHD)	Lead state agency for CEQA and the California Coastal Act (via the Port's Certified Port Master Plan [PMP]). Pursuant to its authority, the Harbor Department may approve permits and provide other approvals (e.g., coastal development permits; leases for occupancy; approval of operating, joint venture, or other types of agreements for the operation of the facilities) for the project or alternative evaluated in this SEIS/SEIR. Leasing authority for Port of Los Angeles land. Permitting authority for engineering construction. The proposed Project would require issuance of a lease to a proposed tenant, engineering permits for construction undertaken by a proposed tenant, and issuance of a Coastal Development Permit for facility construction and operation.
City of Los Angeles Building and Safety Department	Responsible agency with permitting authority for building and grading permits.
City of Los Angeles Bureau of Engineering	Responsible agency with permitting authority for storm drain connections and storm water discharges.
City of Los Angeles Bureau of Sanitation	Responsible agency with permitting authority for Industrial Waste Permit for discharges of industrial wastewater to the City sewer system.
City of Los Angeles Fire Department (LAFD)	Responsible agency that reviews and approves the facility's Hazardous Materials Business Plan and Inventory and its Risk Management and Prevention Program. Reviews and submits recommendations regarding design for building permit.
City of Los Angeles Department of Water and Power (LADWP)	Reviews and approves the facility's new water service connection and meter.
City of Los Angeles Transportation Department (LADOT)	Responsible agency that reviews and approves changes in City street design, construction, signalization, signage, and traffic counts.

1.4 Scope and Content of the Draft SEIS/SEIR

The USACE and LAHD issued a Notice of Intent (NOI) and Notice of Preparation (NOP) and CEQA Initial Study and Environmental Assessment Checklist for the PLAMT (then Pacific Energy) Crude Oil Terminal and Pipelines Project SEIS/SEIR on June 8, 2004 (see Appendix A). Subsequently, the NOI was published in the Federal Register on June 25, 2004. The two agencies jointly held a public hearing/scoping meeting on July 8, 2004 at the Banning's Landing Community Center in Wilmington, California. Fifteen people at the hearing/meeting commented on the proposed Project and 14 letters of comment were received during the comment period.

The scope of analysis and technical work plans developed as part of preparing this Draft SEIS/SEIR were designed to ensure that the comments received from regulatory

1 agencies and the public would be addressed. All comments were reviewed. Written and
2 oral comments were condensed within common topics and are summarized below by the
3 topic raised. The comments received focused on the following topics:

- 4 • The environmental review/permitting process (addressed in Chapters 1 and 3);
- 5 • Project purpose and need (addressed in Chapter 2);
- 6 • Project description (addressed in Chapter 2);
- 7 • Related projects and associated potential for cumulative effects (addressed in
8 Chapter 4);
- 9 • Impacts of the proposed Project on air quality, health risk associated with diesel
10 emissions, and appropriate mitigation measures (addressed in Section 3.2);
- 11 • Consideration of impacts due to upsets, spills, natural disasters, man-made
12 hazards, or intentional attacks (addressed in Sections 3.9 and 3.12);
- 13 • Consideration of a reasonable range of alternatives (addressed in Chapters 2, 3,
14 and 6);
- 15 • Consideration of mitigation measures to resolve significant impacts (addressed
16 in Chapter 3); and
- 17 • Consideration of the environmental justice effects (addressed in Chapter 5).

18 1.4.1 Scope of Analysis

19 This SEIS/SEIR has been prepared in conformance with the USACE NEPA
20 Implementing Regulations; the Council for Environmental Quality (CEQ) Guidelines;
21 CEQA (Public Resources Code, Section 21000 et seq.); the State CEQA Guidelines (14
22 CCR Section 15000 et seq.); and Port Guidelines for the Implementation of CEQA; it
23 includes all of the sections required by NEPA and CEQA.

24 The criteria for determining the significance of environmental impacts in this Draft
25 SEIS/SEIR analysis are described in the section titled “Significance Criteria” under each
26 resource topic in Chapter 3. The “threshold of significance” for a given environmental
27 effect is the level at which the LAHD or the USACE finds a potential effect of the
28 proposed Project or alternative to be significant. “Threshold of significance” can be
29 defined as a “quantitative or qualitative standard, or set of criteria, pursuant to which
30 significance of a given environmental effect may be determined” (CEQA Guidelines,
31 Section 15064.7 [a]). Except as noted in particular sections of the document, the Port
32 has adopted the City of Los Angeles’ *L.A. CEQA Thresholds Guide* (City of Los
33 Angeles 2006) for purposes of this SEIS/SEIR, although some criteria were adapted to
34 the specific circumstances of this project (as explained in the respective sections in
35 Chapter 3). The USACE also has adopted the *L.A. CEQA Thresholds Guide* for purposes
36 of this SEIS/SEIR to achieve its NEPA responsibilities, unless otherwise noted in
37 particular sections of the document.

38 The scope of the USACE’s review is normally defined by 33 *Code of Federal*
39 *Regulations* (CFR) Part 325, Appendix B, which states “the district engineer should
40 establish the scope of the NEPA document to address the impacts of the specific activity
41 regarding the Department of the Army (DA) permit and those portions of the entire

1 project over which the district engineer has sufficient control and responsibility to
2 warrant Federal review.” USACE Regulations also require the USACE to examine
3 whether the USACE’s “scope of review” or “scope of analysis” should be expanded to
4 account for indirect and/or cumulative effects of the issuance of a permit (33 CFR 325
5 Appendix B). Typical factors considered in determining “sufficient control and
6 responsibility” include:

- 7 1. Whether or not the activity comprises merely a link in a corridor type project
- 8 2. Whether there are aspects of the upland facility in the immediate vicinity of the
9 regulated activity that affect the location and configuration of the regulated
10 activity
- 11 3. The extent to which the entire project will fall within USACE jurisdiction
- 12 4. The extent of federal cumulative control and responsibility.

13 Based on the proposed Project’s connection with the federal project represented by the
14 creation of Pier 400 (see Section 1.1.1.1), the numerous channel crossings, and the fact
15 that no part of the project can be built without a permit from the USACE, the appropriate
16 scope of analysis for the federal review of the proposed action consists of the entire
17 project area.

18 In addition, based on the Environmental Assessment Checklist, the USACE identified
19 potentially significant indirect and cumulative effects within the scope of federal control
20 in uplands that could occur as a result of the proposed Project (directly traceable to the
21 construction of pipelines). While operational impacts in the uplands are outside of the
22 jurisdiction of the USACE, NEPA requires the USACE to fully disclose potentially
23 significant indirect and cumulative impacts occurring as a result of a proposed permit
24 action. Therefore, the USACE is preparing this EIS for the proposed action and its
25 alternatives.

26 Normally, any ultimate permit decision would focus on direct impacts to the aquatic
27 environment, as well as indirect and cumulative impacts in the uplands determined to be
28 within the scope of federal control and responsibility as part of the required public
29 interest review. These incremental impacts are typically defined by comparing the
30 proposed Project to the NEPA Baseline or No Federal Action alternative, which details
31 the work and impacts that could occur without a permit from the USACE.

32 Additionally, the United States Environmental Protection Agency (USEPA) Section
33 404(b)(1) guidelines (40 CFR 230) require the USACE to issue a permit only for the
34 least environmentally damaging practicable alternative (LEDPA), which is the
35 practicable alternative that has the least damage to aquatic resources. The factors that
36 influence whether an alternative is “practicable” include cost, logistics, technology, and
37 the ability of the alternative to meet the overall Project purpose. The Section 404(b)(1)
38 guidelines focus on the impacts to the aquatic environment of discharges of dredged or
39 fill material in waters of the U.S. The scope of the Section 404(b)(1) analysis can be
40 narrower than that of the NEPA analysis and could reach different conclusions regarding
41 the practicability of an alternative.

42 The Section 404(b)(1) guidelines state that no discharge of dredged or fill material shall
43 be permitted if there is a practicable alternative to the proposed discharge that would

1 have less significant impact on the aquatic ecosystem, so long as the alternative does not
2 have other significant environmental consequences (40 CFR 230.10[a]). A Section
3 404(b)(1) evaluation typically includes the following type of analysis:

- 4 1. Factual determinations (e.g., on the physical substrate; water circulation, fluctuation,
5 and salinity; suspended particulates/turbidity; contaminants; aquatic ecosystem and
6 organisms; proposed disposal sites; and cumulative effects on the aquatic
7 ecosystem)
- 8 2. Findings of compliance or noncompliance with restrictions on discharge, including
9 evaluation of the availability of practicable alternatives that would have less
10 significant impact on the aquatic ecosystem; and compliance with a variety of
11 regulations (e.g., applicable state water quality standards; toxic effluent standards or
12 prohibitions under Section 307 of the CWA; the federal Endangered Species Act;
13 the Marine Protection, Research and Sanctuaries Act)
- 14 3. Identification of practical steps taken to minimize potential significant impacts of
15 the discharge on the aquatic ecosystem
- 16 4. A conclusion about the compliance of the proposed Project with the Section
17 404(b)(1) guidelines.

18 The information presented in this SEIS/SEIR specific to impacts to the aquatic
19 environment would be used by the USACE as part of any proposed permit action subject
20 to jurisdiction under Section 404 of the CWA and Section 10 of the RHA.

21 The following issues have been determined to be potentially significant and are therefore
22 evaluated in this SEIS/SEIR.

- 23 • aesthetics and visual resources
- 24 • air quality and meteorology
- 25 • biological resources
- 26 • cultural resources
- 27 • geology
- 28 • groundwater and soils
- 29 • hazards and hazardous materials
- 30 • marine transportation
- 31 • noise
- 32 • water quality, sediments, and oceanography

33 Although the Initial Study indicated less than significant impacts on the following
34 resources, they are also evaluated in this SEIS/SEIR because they are of general interest to
35 the public:

- 36 • land use
- 37 • ground transportation
- 38 • recreation

- utilities and public services
- population and housing

There are no agricultural soils or resources in the area, so agricultural resources are not evaluated in this SEIS/SEIR. Mineral resources are evaluated in Section 3.5, Geology, and impacts on minority populations and low-income populations are evaluated in Chapter 5, Environmental Justice.

Chapter 3 discusses the environmental resources that could be significantly affected by the proposed Project or alternatives. Mitigation measures to reduce impacts to a less-than-significant level are proposed whenever feasible. This document reconsiders mitigation measures previously approved in the 1992 Deep Draft FEIS/FEIR and considers additional feasible measures as required.

This Draft SEIS/SEIR has been prepared by Science Applications International Corporation (SAIC) under contract to the LAHD and has been independently reviewed by USACE and LAHD staff. The scope of the document, methods of analysis, and conclusions represent the independent judgment of the USACE and LAHD. Staff members from the USACE, LAHD, and SAIC who helped prepare this Draft SEIS/SEIR are identified in Chapter 11 (List of Preparers and Contributors).

1.4.2 Intended Uses of this Draft SEIS/SEIR

This Draft SEIS/SEIR has been prepared in accordance with applicable federal and state environmental regulations, policy, and law to inform federal, state, and local decision makers regarding the potential environmental impacts of the proposed Project and alternatives. As an informational document, an SEIS/SEIR (or any EIS or EIR) does not recommend approval or denial of a project. This Draft SEIS/SEIR is being provided to the public for review, comment, and participation in the planning process.

After public review and comment, a Final SEIS/SEIR will be prepared, including responses to individual comments on the Draft SEIS/SEIR received from agencies, organizations, and individuals. The Final SEIS/SEIR will be distributed to provide the basis for decision-making by the CEQA and NEPA lead agencies, as described below. The Final SEIS/SEIR will also be distributed to provide the basis for decision-making by other concerned agencies, as described in Table 1-3.

1.4.2.1 USACE Use

This Draft SEIS/SEIR will support a decision regarding the proposed federal action. The USACE Record of Decision (ROD) will document the decision of the USACE on the proposed action, including any required environmental mitigation commitments.

The USACE has jurisdictional authority over the proposed Project pursuant to Section 404 of the CWA and Section 10 of the RHA. The USACE will consider a single application submitted jointly by the LAHD and PLAMT for a permit to construct the berthing facilities and pipeline crossings. This document, however, is not serving as a public notice of application for any Department of the Army (DA) permit at this time.

1 Rather, such public notice of DA permit application is being issued concurrently with
2 the public review period for this Draft SEIS/SEIR.

3 The primary federal action is the proposed issuance of a permit authorizing work and
4 structures in navigable waters of the U.S. and related assessment of direct, indirect, and
5 cumulative impacts to the aquatic environment, as well as potential significant indirect
6 and cumulative impacts on the environment. For the USACE, approval of a permit
7 under Section 10 of the RHA and/or Section 404 of the CWA is a federal action
8 requiring NEPA review (42 USC 4341 et seq.).

9 The USACE will consider this SEIS/SEIR as part of its decision-making process
10 regarding LAHD's and PLAMT's permit request for wharf construction and pipeline
11 crossings.

12 **1.4.2.2 LAHD Use**

13 The LAHD has jurisdictional authority over the proposed Project primarily pursuant to
14 the Tidelands Trust, California Coastal Act, and the Los Angeles City Charter. This EIR
15 will be used by LAHD, as the lead agency under CEQA, in making a decision with
16 regard to the construction and operation of the proposed Project and to inform
17 responsible agencies considering permit applications and other actions required to
18 construct, lease, and operate the proposed Project. The LAHD's certification of the EIR,
19 Notice of Completion, Findings of Fact, and Statement of Overriding Considerations (if
20 necessary) would document LAHD's decision as to the adequacy of the EIR and inform
21 subsequent decisions by the LAHD whether to approve the proposed Project and construct
22 the in-water elements, and whether to lease the project site to Pacific L.A. Marine
23 Terminal for a 30-year period and grant the necessary construction and operating
24 permits.

25 LAHD would also use this Draft SEIS/SEIR to certify (on behalf of the Coastal
26 Commission) that the proposed Project is consistent with its Coastal Development
27 permit. The actions that could be undertaken by the LAHD following preparation of the
28 Final EIR are outlined below.

- 29 • Certify EIR
- 30 • Approve Proposed Project
- 31 • Approve Leases
- 32 • Approve Coastal Development Permits
- 33 • Complete Final Construction Approval
- 34 • Approve Engineering Permit
- 35 • Obtain Other Agency Permits and Approvals (dredge and fill, grading,
36 construction, occupancy, fire safety, etc.)
- 37 • Issue Construction Contracts.

1.4.2.3 Other Uses

Other agencies (federal, state, regional, and local) that have jurisdiction over some part of the proposed Project or a resource area affected by the proposed Project are expected to utilize this SEIS/SEIR as part of their approval or permit process as set forth in Table 1-3. Specific approvals that could be required for this proposed Project are:

- City of Los Angeles Building and Safety Permits
- SCAQMD Permit to Construct and Permit to Operate
- LAFD approval of the facility's Hazardous Materials Business Plan and Inventory and its Risk Management and Prevention Program
- Water Quality Permits (CWA Section 401 Water Quality Certification, NPDES permits)
- City Council approval of the lease
- Construction contracts.

1.4.3 Draft SEIS/SEIR Organization

The content and format of this Draft SEIS/SEIR are designed to meet the current requirements of CEQA, the State CEQA Guidelines, and NEPA. Table 1-4 summarizes the organization and content of the Draft SEIS/SEIR.

Table 1-4. Organization and Contents of the Draft SEIS/SEIR

<i>Draft SEIS/SEIR Section</i>	<i>Description</i>
Executive Summary	Summary of the proposed Project and alternatives, potential significant impacts and mitigation measures, the Environmentally Superior Alternative (in accordance with CEQA) and the Environmentally Preferred Alternative (in accordance with NEPA), public comments and concerns, and unresolved issues and areas of controversy.
Chapter 1, Introduction	Summarizes the proposed Project and describes the background to the proposed Project, the intended uses of the document and authorizing actions, the relationship to previous CEQA and NEPA documents, relationship to existing plans and policies, the scope and content of the document, and the organization of the document.
Chapter 2, proposed Project Description	Describes the purpose, need, and objectives of the proposed Project under NEPA and CEQA, describes the proposed Project and alternatives evaluated in this document, and describes alternatives initially considered but eliminated from further consideration.
Chapter 3, Affected Environment and Environmental Analysis	Describes, for each environmental resource area, the baseline conditions as of June 2004; criteria for judging whether an impact is significant; impact assessment methodology; impacts that would result from the proposed Project and each proposed Project alternative; applicable mitigation measures that would eliminate or reduce significant impacts; and the nature of the mitigation monitoring program.
Chapter 4, Cumulative Analysis	Provides analysis of whether or not the proposed Project would contribute to cumulative impacts from past, present, and reasonably foreseeable future projects within the same scope of analysis and evaluates the overall cumulative impacts.
Chapter 5, Environmental Justice	Addresses the potential effects of the proposed Project on minority populations and low-income communities adjacent to the proposed Project site.

Table 1-4. Organization and Contents of the Draft SEIS/SEIR (continued)

Chapter 6, Comparison of Alternatives	Compares the significant environmental impacts of the proposed Project and alternatives and identifies the Environmentally Preferred and Superior Alternatives.
Chapter 7, Socio-Economic Analysis	Identifies the proposed Project's socioeconomic effects.
Chapter 8, Growth-Inducing Impacts	Presents whether or not the proposed Project would result in growth-inducing impacts.
Chapter 9, Significant Irreversible Changes	Describes the significant irreversible changes associated with the proposed Project.
Chapter 10, References	Identifies the documents consulted in preparing this Draft SEIS/SEIR.
Chapter 11, List of Preparers and Contributors	Lists the individuals involved in preparing this Draft SEIS/SEIR.
Chapter 12, Acronyms, Abbreviations, and Glossary	Provides the full names for acronyms and abbreviations used in this document; also provides a glossary of key technical terms used throughout the document.
Appendices	Present additional background information and technical detail for several of the resource areas.

1.5 Key Principles Guiding Preparation of this Draft SEIS/SEIR

1.5.1 Emphasis on Significant Environmental Effects

This Draft SEIS/SEIR focuses on the proposed Project's and each project alternative's significant environmental impacts and the relevance of those impacts to the decision-making process. NEPA requires the lead federal agency to rely on a "scientific and analytical basis for the comparison of alternatives" (40 CFR 1502.16) in making its decisions. Commonly, when preparing a joint document the lead federal agency will adopt the CEQA significance thresholds as its scientific basis, unless otherwise noted.

"Environmental impacts", as defined by CEQA, include physical effects on the environment, and in this document the term is used synonymously with the term "environmental effects" under NEPA. The State CEQA Guidelines (Section 15360) define the "environment" as follows:

The physical conditions which exist within the areas which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Environmental impacts required to be analyzed under CEQA do not include strictly economic impacts (e.g., changes in property values) or social impacts (e.g., a particular group of persons moving into an area). The CEQA Guidelines (Section 15131[a]) state, "economic or social effects of a project shall not be treated as significant effects on the environment." However, economic or social effects are relevant to physical effects in two situations. In the first, according to Section 15131(a) of the State CEQA Guidelines, "an EIR may trace a chain of cause and effect from a proposed decision on a project

1 through anticipated economic or social changes to physical changes caused in turn by the
2 economic or social changes.” In other words, if a physical impact leads to an economic
3 impact, which then leads to another physical impact, that ultimate physical impact must
4 be evaluated in the EIR. In the second instance, according to Section 15131(b) of the
5 Guidelines, “economic or social effects of a project may be used to determine the
6 significance of a physical change caused by a project.” For example, the closure and
7 demolition of a fully occupied commercial building could be considered more significant
8 than the demolition of a similar vacant building, even though the physical effects are the
9 same.

10 As with economic or social impacts, psychological impacts are outside the definition of
11 the term “environmental.” While not specifically discussed in the State CEQA
12 Guidelines, the exclusion of psychological impacts was specifically affirmed in a court
13 decision (*National Parks and Conservation Association v. County of Riverside* [1999] 71
14 Cal. App. 4th 1341, 1364).

15 In view of these legal precedents, the LAHD is not required to treat economic, social, or
16 psychological impacts as significant environmental impacts absent a related physical
17 effect on the environment. Therefore, such impacts are only discussed to the extent
18 necessary to determine the significance of the physical impacts of the proposed Project
19 and alternatives. Additionally, this Draft SEIS/SEIR addresses Environmental Justice in
20 Chapter 5 and Socioeconomics in Chapter 7.

21 1.5.2 Forecasting

22 In this Draft SEIS/SEIR, the USACE, the LAHD, and their consultants have made their
23 best efforts to predict and evaluate the reasonable, foreseeable, direct, indirect, and
24 cumulative environmental impacts of the proposed Project. However, NEPA and CEQA
25 do not require the USACE and the LAHD to engage in speculation about impacts that
26 are not reasonably foreseeable (CEQA Guidelines Sections 15144, 15145). In these
27 instances, CEQA does not require a worst-case analysis. Similarly, NEPA does not
28 require a worst-case analysis when confronted with incomplete or unavailable
29 information (40 C.F.R. 1502.22).

30 1.5.3 Reliance on Environmental Thresholds and 31 Substantial Evidence

32 The identification of impacts as “significant” or “less than significant” is one of the
33 important functions of an EIS and an EIR. While impacts determined to be “less than
34 significant” need only be acknowledged as such, an EIR must identify mitigation
35 measures for any impact identified as “significant.” In preparing this document, the
36 LAHD has based its conclusions about the “significance” of environmental impacts on
37 identifiable thresholds (i.e., the *L.A. CEQA Thresholds Guide* [City of Los Angeles
38 2006]), and/or other scientific and analytical bases, and has supported these conclusions
39 with substantial scientific evidence. The USACE has adopted the City of Los Angeles
40 CEQA Thresholds to meet its NEPA responsibilities, unless otherwise noted in
41 particular sections of this document for the NEPA analysis.

1 The criteria for determining the significance of environmental impacts in this analysis
2 are described in each resource section in Chapter 3. The “threshold of significance”
3 under CEQA for a given environmental effect is the level at which LAHD finds a
4 potential effect of the proposed Project or alternative to be significant. “Threshold of
5 significance” can be defined as a “quantitative or qualitative standard, or set of criteria,
6 pursuant to which significance of a given environmental effect may be determined”
7 (CEQA Guidelines, Section 15064.7 [a]).

8 **1.5.4 Disagreement Among Experts**

9 During preparation of the SEIS/SEIR, it is possible that evidence that might raise
10 disagreements will be presented during the public review of the Draft SEIS/SEIR. Such
11 disagreements will be noted and will be considered by the decision makers during the
12 public hearing process. However, to be adequate under CEQA and NEPA, the Draft
13 SEIS/SEIR need not resolve all such disagreements.

14 In accordance with the provisions of the CEQA Guidelines, conflict of evidence and
15 expert opinions on an issue concerning the environmental impacts of the proposed
16 Project or project alternative — when LAHD knows of these controversies in advance
17 — has been identified in this Draft SEIS/SEIR. The Draft SEIS/SEIR has summarized
18 the conflicting opinions and has included sufficient information to allow the public and
19 decision-makers to take intelligent account of the environmental consequences of their
20 actions.

21 In rendering a decision on a project when there is a disagreement among experts, the
22 decision-makers are not obligated to select the most conservative, environmentally
23 protective, or liberal viewpoint. They may give more weight to the views of one expert
24 than to those of another, and need not resolve a dispute among experts. In their
25 proceedings, the decision-makers must consider the comments received and address any
26 objections, but need not follow said comments or objections so long as they state the
27 basis for their decision supported by substantial evidence.

28 **1.5.5 NEPA and CEQA Baselines**

29 **1.5.5.1 NEPA Baseline**

30 In analyzing a proposed project in a joint CEQA/NEPA format, the USACE must
31 distinguish the scientific and analytical basis for its decisions from those used by the
32 CEQA Lead Agency. The USACE baseline condition for determining significance of
33 impacts is the “No Federal Action” or NEPA Baseline condition, which is defined by
34 examining the full range of construction and operational activities that are likely to occur
35 absent a permit from the USACE. The NEPA Baseline includes all of the construction
36 and operational impacts likely to occur absent a USACE permit, e.g., air emissions and
37 traffic likely to occur without issuance of a permit to construct or modify wharves or
38 dredge. The determination is based on direct statements and empirical data from the
39 applicant, as well as the judgment and experience of the USACE. Activities that require
40 a USACE permit – those activities within the USACE’s organic jurisdiction under

1 Section 10 of the RHA and Section 404 of the CWA – are not part of the NEPA
2 Baseline.

3 The NEPA Baseline is not bound by statute to a “flat” or “no growth” scenario;
4 therefore, the USACE may project increases in operations over the life of a project to
5 properly analyze the NEPA Baseline condition. Normally, any ultimate permit decision
6 would focus on direct impacts to the aquatic environment, as well as indirect and
7 cumulative impacts in the uplands determined to be within the scope of federal control
8 and responsibility as part of the required public interest review (see below). The
9 significance of the impacts of the proposed Project or alternative is defined by
10 comparing the proposed Project or alternative to the NEPA Baseline (i.e., the
11 increment).

12 For this document, the USACE, the LAHD, and the applicant have concluded that absent
13 a USACE permit, it is not foreseeable that any element of the proposed Project would be
14 implemented at the site. Therefore, for purposes of this document, the NEPA Baseline,
15 corresponding to No Federal Action, is the No Project condition. Project-related
16 resource effects are analyzed relative to this dynamic NEPA Baseline for particular
17 project years to determine the increments of adverse or beneficial impact attributable to
18 the NEPA action. This issue is addressed further in Section 2.6.

19 **1.5.5.2 CEQA Baseline**

20 Section 15125 of the CEQA Guidelines requires EIRs to include a description of the
21 physical environmental conditions in the vicinity of a project that exists at the time of the
22 NOP. These environmental conditions constitute the baseline physical conditions by
23 which the CEQA lead agency determines whether an impact is significant. For purposes
24 of this Draft SEIS/SEIR, the CEQA Baseline for determining the significance of
25 potential proposed Project impacts is the date of the NOP/IS, or June 2004. In June
26 2004, the proposed Project site was vacant and there was no activity onsite. Therefore,
27 the CEQA Baseline is considered the undeveloped Project site for this analysis. For
28 some resource areas such as Aesthetics, or Geology, the baseline conditions are defined
29 by what is present on the NOP date. Assessment of other resource areas such as Air
30 Quality or Biology may also include information from prior years in order to provide the
31 most full, accurate and representative characterization of baseline conditions.

32 The CEQA Baseline represents the setting at a fixed point in time and differs from the
33 “No Project” Alternative (discussed in Section 2.5.2.1) in that the No Project Alternative
34 addresses what may reasonably occur at the site over time, as evaluated from the existing
35 undeveloped Project site conditions. The No Project Alternative also allows for growth
36 to take place within the proposed Project’s region of influence that would occur without
37 additional approvals.

38 **1.5.6 Duty to Mitigate**

39 Under NEPA, 40 CFR 1505.3 requires that “mitigation and other conditions established
40 in the environmental impact statement or during its review and committed as part of the
41 decision shall be implemented by the lead agency or other appropriate consenting
42 agency.” While the USACE may identify and analyze impacts outside its jurisdiction,
43 the USACE limits the placement of special conditions in USACE permits (requirements

1 for mitigation) to activities within the USACE jurisdiction (i.e., activities directly subject
2 to its permitting authority under Section 404 of the Clean Water Act, Section 10 of the
3 River and Harbor Act, and Section 103 of the Marine Protection, Research, and
4 Sanctuaries Act). The USACE cannot constrain operations outside its jurisdiction
5 where, absent USACE permits for construction in waters of the U.S., the federal
6 government has no authority over those operations. Therefore, while there may be an
7 increment of upland indirect and/or cumulative effects within the USACE scope of
8 review (i.e., traceable to the issuance of a permit), the USACE would not place special
9 conditions on those upland impacts because activities in the uplands are not within the
10 USACE’s jurisdiction, and some portion of those impacts would occur absent a USACE
11 permit.

12 According to CEQA Guidelines Section 15126.4(a), each significant impact identified in
13 an EIR must also include a discussion of feasible mitigation measures that would avoid
14 or substantially reduce the significant environmental effect. To reduce significant
15 effects, mitigation measures must avoid, minimize, rectify, reduce, eliminate, or
16 compensate for a given impact of the proposed Project or project alternative.

17 Mitigation measures must meet certain requirements in order to be considered adequate.
18 Mitigation should be specific, define feasible actions that will actually improve adverse
19 environmental conditions, and be measurable to allow monitoring of their implementation.
20 Mitigation measures that only require further studies or consultation with regulatory agencies
21 that are not tied to a specific action that would directly reduce impacts, or those that defer
22 mitigation until some future time, should be avoided. Accordingly, effective mitigation
23 measures clearly explain objectives, how a given measure should be implemented, who is
24 responsible for its implementation, and where and when the mitigation will occur. Finally,
25 mitigation measures must be enforceable, meaning that the lead agency must be able to
26 ensure that the measures will be imposed through appropriate permit conditions, agreements,
27 or other legally binding instruments.

28 CEQA Guidelines Section 15041 allows a public agency to require feasible mitigation
29 that would substantially lessen or avoid significant effects on the environment associated
30 with all activities involved in a project. Public agencies, however, do not have unlimited
31 authority to impose mitigation. An agency may exercise only those express or implied
32 powers provided by law, aside from those provided by CEQA. However, where another
33 law grants an agency discretionary powers, CEQA authorizes its use (CEQA Guidelines
34 Section 15040).

35 In addition to limitations imposed by CEQA, the U.S. Constitution also limits the
36 authority of regulatory agencies. The Constitution limits an agency’s authority to
37 impose conditions to those situations where there is a clear and direct connection
38 (“nexus” in legal terms) between a project impact and the mitigation measure. Finally,
39 there must be a proportional balance between the impact caused by the proposed Project
40 and the mitigation measure imposed upon the project applicant. A project applicant
41 cannot be forced to pay more than its fair share of the mitigation, which should be
42 roughly proportional to the impacts caused by the proposed Project or project alternative.

1.5.7 Requirements to Evaluate Alternatives

According to the Council on Environmental Quality NEPA Regulations (40 CFR 1502.14), the alternatives section of an EIS is required to:

- Rigorously explore and objectively evaluate all reasonable alternatives;
- Include reasonable alternatives not within the lead agency’s jurisdiction or congressional mandate, if applicable;
- Include the no-action alternative;
- Provide substantial treatment for each alternative, including the proposed action, so that reviewers may evaluate their comparative merits;
- Identify the lead agency’s preferred alternative;
- Include appropriate mitigation measures (when not already part of the proposed action or alternatives); and
- Present the alternatives that were eliminated from detailed study and briefly discuss the reasons for elimination.

CEQA Guidelines 15126.6 require that an EIR describe a range of reasonable alternatives to the project, or to the location of the project, that could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant environmental impacts. The EIR should compare merits of the alternatives and determine an environmentally superior alternative. Section 2.5 of this Draft SEIS/SEIR sets forth potential alternatives to the proposed Project and evaluates their suitability, as required by CEQA Guidelines (Section 15126.6).

Alternatives for an EIS/EIR usually take the form of no project, reduced project size, different project design, or suitable alternative project sites. The range of alternatives discussed in an EIS/EIR need not be beyond a reasonable range, and an EIS/EIR is governed by the “rule of reason” that requires the identification of only those alternatives necessary to permit a reasoned choice between the alternatives and the project. An EIS/EIR need not consider an alternative that would be infeasible. State CEQA Guidelines, Section 15126.6 explains that the evaluation of project alternative feasibility can consider “*site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site.*” Additionally, an EIS/EIR is not required to evaluate an alternative whose effects could not be reasonably identified, or whose implementation is remote or speculative, and that would not achieve the basic objectives of the proposed Project. A lead agency may also eliminate from consideration alternatives that are incapable of reducing environmental impacts (*Mann v. Community Redevelopment Agency* (1991) 233 Cal.App.3d 1143; *Del Mar Terrace Conservancy v. City Council* (1992) 10 Cal.App.4th 712).

Additionally, for impacts to aquatic resources, USEPA’s Section 404(b)(1) guidelines have been officially adopted by the USACE, and are the USACE Regulations as well. These regulations require that the USACE issue a permit for the least environmentally damaging practicable alternative (LEDPA), where practicable is defined in terms of cost,

1 logistics and technology, that still meets the overall project purpose. The Section
2 404(b)(1) guidelines focus on the impacts to the aquatic environment of waters of the
3 U.S., but also consider other potentially significant consequences. The scope of the
4 404(b)(1) analysis is narrower than that of the NEPA analysis, and may reach different
5 conclusions regarding the practicability of an alternative.

6 In order to comply with the Section 404(b)(1) guidelines, the USACE typically analyzes
7 alternatives that reduce impacts to aquatic resources through alternative configurations,
8 locations, construction methods, sizes, etc. Pursuant to the Section 404(b)(1) guidelines
9 and USACE regulations (33 CFR 320-330), the USACE can only issue a permit for a
10 project that is the least environmentally damaging practicable alternative (focusing
11 primarily on impacts to aquatic resources) that is not contrary to public interest.

12 **1.6 Port of Los Angeles Environmental** 13 **Initiatives**

14 The Environmental Management Policy of the Port, as described in this section, was
15 approved by the Los Angeles Board of Harbor Commissioners on April 27, 2003. The
16 purpose of the Environmental Management Policy is to provide an introspective,
17 organized approach to environmental management; further incorporate environmental
18 considerations into day-to-day Port operations; and achieve continual environmental
19 improvement.

20 The Environmental Management Policy includes existing environmental initiatives for
21 the Port and its customers, such as the voluntary Vessel Speed Reduction Program
22 (VSRP), Source Control Program, Least Tern Nesting Site Agreement, Hazardous
23 Materials Management Policy, and the Clean Engines and Fuels Policy. In addition, the
24 Policy will encompass new initiatives such as the development of an Environmental
25 Management System (EMS) with the Construction and Maintenance Division of the
26 Port, and a Clean Marina Program. These programs are Portwide initiatives to reduce
27 environmental pollution. Many of the programs relate to the proposed Project. The
28 following discussion includes details on a number of the programs and their goals.

29 **1.6.1 Port Environmental Policy**

30 The Port is committed to managing resources and conducting Port developments and
31 operations in an environmentally and fiscally responsible manner. The Port strives to
32 improve the quality of life and minimize the impacts of its development and operations
33 on the environment and surrounding communities. This is done through the continuous
34 improvement of its environmental performance and the implementation of pollution-
35 prevention measures, in a feasible and cost-effective manner that is consistent with the
36 overall mission and goals of the Port and with those of its customers and the community.

37 To ensure this policy is successfully implemented, the Port will develop and maintain an
38 Environmental Management Program that will:

- 39 • Ensure this environmental policy is communicated to Port staff, its customers,
40 and the community;

- Ensure compliance with all applicable environmental laws and regulations;
- Ensure environmental considerations include feasible and cost-effective options for exceeding applicable regulatory requirements;
- Define and establish environmental objectives, targets, and Best Management Practices (BMPs), and monitor performance;
- Ensure the Port maintains a Customer Outreach Program to address common environmental issues; and
- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations through environmental awareness and communication with employees, customers, regulatory agencies, and neighboring communities.

The Port is committed to the spirit and intent of this policy and the laws, rules and regulations, which give it foundation.

1.6.2 Environmental Plans and Programs

The Port has implemented a variety of plans and programs to reduce the environmental effects associated with operations at the Port. These programs range from the San Pedro Bay Ports Clean Air Action Plan to deepening the channels of the Port to accommodate larger and more efficient ships, to converting to electric and alternative-fuel vehicles. All of these efforts ultimately reduce environmental effects.

1.6.2.1 Clean Air Action Plan

On November 26, 2006, the LAHD Board of Harbor Commissioners, in conjunction with the Port of Long Beach Harbor Commissioners, approved the San Pedro Bay Ports Clean Air Action Plan (SPBP CAAP), a comprehensive strategy to cut air pollution and reduce health risks from Port-related air emissions. Through the CAAP, the Ports have established uniform air quality standards for the San Pedro Bay. To attain such standards, the Ports will leverage a number of implementation mechanisms including, but not limited to, lease requirements, tariff changes, CEQA mitigation, and incentives. Specific strategies to significantly reduce the health risks posed by air pollution from port-related sources include:

- Milestones with measurable goals for air quality improvements.
- Specific standards for individual source categories.
- Recommendations to eliminate emissions of ultra-fine particulates.
- A technology advancement program to reduce green house gases.
- A public participation process with environmental organizations and the business communities.

The CAAP focuses primarily on reducing DPM, along with NO_x and SO_x, with two main goals: (1) to reduce Port-related air emissions in the interest of public health, and (2) to disconnect cargo growth from emissions increases. The Plan includes near-term measures implemented largely through the CEQA/NEPA process and through new

1 leases at both ports. Port-wide measures at both ports are also part of the Plan. The
2 CAAP is expected to eliminate more than 47% of diesel particulate matter (DPM)
3 emissions, 45% of smog-forming nitrogen oxide (NO_x) emissions, and 52% of sulfur
4 oxides (SO_x) from port-related sources within the next five years.

5 The Port has had a Clean Air Program in place since 2001 and began monitoring and
6 measuring air quality in surrounding communities in 2004. Through the 2001 Air
7 Emissions Inventory, the Port has been able to identify emission sources and relative
8 contributions in order to develop effective emissions reduction strategies. The Port's
9 Clean Air Program has included progressive programs such as alternative maritime
10 power (AMP), use of emulsified fuel and diesel oxidation catalysts (DOCs) in yard
11 equipment, alternative fuel testing, and the Vessel Speed Reduction Program (VSRP).

12 In 2004, the Port developed a plan to reduce air emissions through a number of near-
13 term measures. The measures were focused primarily on decreasing not only NO_x but
14 also PM and SO_x. In August 2004, a policy shift occurred, and Mayor James K. Hahn
15 established the No Net Increase Task Force to develop a plan that would achieve the
16 goal of No Net Increase (NNI) in air emissions at the Port of Los Angeles relative to
17 2001 levels. The NNI plan identified 68 measures to be applied over the next 25 years
18 that would reduce PM and NO_x emissions to the baseline year of 2001. The 68
19 measures included near-term measures; local, state, and federal regulatory efforts;
20 technological innovations; and longer-term measures that are still in development.
21 Appendix B contains a document that identifies and analyzes all of the NNI measures in
22 terms of proposed Project applicability.

23 In 2006, in response to a new Mayor and Board of Harbor Commissioners, the Port of
24 Los Angeles, along with the Port of Long Beach and in conjunction with the Air Quality
25 Management District (AQMD), California Air Resources Board (CARB), and USEPA,
26 began work on the CAAP. The goal of the CAAP was to expand upon existing emissions
27 reductions strategies and to develop new ones. The Draft CAAP was released as a draft
28 plan for public review on June 28, 2006, and it was approved at a joint meeting of the
29 Los Angeles and Long Beach Boards of Harbor Commissioners on November 26, 2006.
30 The CAAP focuses primarily on reducing diesel particulate matter (DPM), along with
31 NO_x and SO_x, with two main goals: (1) to reduce Port-related air emissions in the
32 interest of public health, and (2) to disconnect cargo growth from emissions increases.
33 The CAAP includes project-specific measures (such as AMP and new yard equipment)
34 implemented mainly through the CEQA/NEPA process and included in new leases at
35 both ports, and Portwide measures (such as a truck program and measures for rail and
36 tugs) implemented through tariffs, Memorandums of Understanding (MOUs) and direct
37 Port programs. This Draft SEIS/SEIR analysis assumes compliance with the CAAP.
38 Proposed Project-specific mitigation measures applied to reduce air emissions and public
39 health impacts are consistent with, and in some cases exceed, the emission-reduction
40 strategies of the CAAP.

41 **1.6.2.2 Environmental Management System**

42 In December 2003, the Port was selected by the USEPA, American Association of Port
43 Authorities (AAPA) and the Global Environment and Technology Foundation to
44 participate in the Port Environmental Management System (EMS) Assistance Project.

1 One of only 11 U.S. ports to be selected, the Port is the first California seaport to
2 incorporate the program into its operations.

3 An EMS is a set of processes and practices that enable an organization to reduce
4 environmental impacts and increase operational efficiency. Participating ports are
5 selected on the basis of existing environmental programs, diverse maritime facilities and
6 management resources. An EMS weaves environmental decision-making into the fabric
7 of an organization's overall business practices, with a goal of systematically improving
8 environmental performance. An EMS follows the “Plan-Do-Check-Act” model of
9 continual improvement. LAHD has implemented the EMS within its Construction and
10 Maintenance Division and facilities, with the goal of expanding the EMS to additional
11 functions over the course of the next several years. The Port’s current EMS received
12 official ISO 14001:2004 certification in September 2007.

13 1.6.2.3 Other Environmental Programs

14 Air Quality

- 15 • **Alternative Maritime Power.** AMP reduces emissions from container vessels
16 docked at the Port. Normally, ships shut off their propulsion engines when at
17 berth, but use auxiliary diesel generators to power electrical needs such as
18 lights, pumps, and refrigerator units. These generators emit an array of
19 pollutants, primarily NO_x, SO_x, and small particulate matter (PM₁₀ and PM_{2.5}).
20 The Port is beginning to provide shore-based electricity as an alternative to
21 running the generators (a process also referred to as cold ironing). The AMP
22 program allows ships to “plug-in” to shoreside electrical power while at dock
23 instead of using on-board generators, a practice that will dramatically reduce
24 emissions. Before being used at the Port, AMP was used commercially only by
25 the cruise ship industry in Juneau, Alaska. Now, AMP facilities have been
26 installed and are currently in use at China Shipping and the Yusen Terminals
27 with plans for additional facilities at the Evergreen Terminal, TraPac Terminal
28 and Cruise Ship Terminal, among others. AMP has been incorporated into the
29 CAAP as a project-specific measure.
- 30 • **OffPeak Program.** Extending cargo terminal operations by five night and
31 weekend work shifts, the OffPeak program, managed by PierPass – an organization
32 created by marine terminal operators – has been successful in increasing cargo
33 movement, reducing truck waiting time inside port terminals and truck traffic during
34 peak daytime commuting periods.
- 35 • **On-Dock Rail and the Alameda Corridor.** Use of rail for long-haul cargo is
36 acknowledged as an air quality benefit. Four on-dock rail yards at the Port
37 significantly reduce the number of short-distance truck trips (the trips that would
38 normally convey containers to and from off-site rail yards). Combined, these
39 intermodal facilities eliminate an estimated 1.4 million truck trips per year at the
40 Port, and the emissions and traffic congestion that go along with them. A partner
41 in the Alameda Corridor project, the Port is utilizing the corridor to transport
42 cargo to downtown rail yards at 10 to 15 miles per hour faster than before. Use
43 of the Alameda Corridor allows cargo to travel the 20 miles to downtown Los
44 Angeles at a faster pace and promotes the use of rail versus truck. In addition,

1 the Alameda Corridor eliminates 200 rail/street crossings and emissions
2 produced by cars waiting on the streets as the trains pass.

- 3 • **Tugboat Retrofit Project.** The engines of several tugboats in the Port were
4 replaced with ultra-low-emission diesel engines. This was the first time such
5 technology had been applied to such a large engine. Emissions testing showed a
6 reduction of more than 80 tons of NOx per year, nearly three times better than
7 initial estimates. Under the Carl Moyer Program, the majority of tugboats
8 operating in the Los Angeles/Long Beach Port Complex have since been
9 retrofitted.
- 10 • **Electric and Alternative Fuel Vehicles.** The Port has converted more than 35
11 percent of its fleet to electric or alternative-fuel vehicles. These include heavy-
12 duty vehicles as well as passenger vehicles. The Port has proactively embarked
13 on the use of emulsified fuels that are verified by the California Air Resources
14 Control Board to reduce diesel particulates by more than 60 percent compared
15 to diesel-powered equipment.
- 16 • **Electrified Terminal Operating Equipment.** The 57 ship-loading cranes
17 currently in use at the Port run on electric power. In addition, numerous other
18 terminal operations equipment has been fitted with electric motors.
- 19 • **Yard Equipment Retrofit Program.** Over the past 5 years, diesel oxidation
20 catalysts have been applied to nearly all yard tractors at the Port. This program
21 has been carried out with Port funds and funding from the Carl Moyer Program.
- 22 • **Vessel Speed Reduction Program.** Under this program oceangoing vessels
23 slow down to 12 knots within 40 nautical miles of the entrance to Los Angeles
24 Harbor, thus reducing emissions from main propulsion engines.
- 25 • **Greenhouse Gas Reduction.** Under a December 2007 agreement with the
26 Attorney General's office, the Port will conduct a comprehensive inventory of
27 port-related GHGs, tracking these emissions from their foreign sources to
28 domestic distribution points throughout the United States, and port will annually
29 report this data to the California Climate Action Registry. The annual report will
30 include emissions of all ships bound to and from the Port of Los Angeles
31 terminals, encompassing points of origin and destination; emissions of all rail
32 transit to and from Port terminals, encompassing major rail cargo destination
33 and distribution points in the United States; and emissions of all truck transit to
34 and from Port terminals, encompassing major truck destinations and distribution
35 points. The port-wide inventory will be conducted annually until AB 32
36 regulations become effective. Under the agreement, the Port will also construct
37 a 10 megawatt photovoltaic solar system to offset approximately 17,000 metric
38 tons of carbon dioxide equivalent annually. In addition to the recent agreement
39 with the Attorney General, many of the environmental programs described in
40 this section such as the Green Terminal Program, the Recycling Program, the
41 Green Ports Program, and all of the air quality improvement programs described
42 above, will also serve to reduce GHG emissions.

43 Water Quality

- 44 • **Clean Marinas Program.** To help protect water and air quality in the Harbor, the
45 Port is developing a Clean Marinas Program (CMP). The program advocates that

1 marina operators and boaters use best management practices — environmentally
 2 friendly alternatives to some common boating activities that may cause pollution or
 3 contaminate the environment. It also includes several innovative clean water
 4 measures unique to the Port. The CMP features both voluntary components and
 5 measures required through Port leases, California Environmental Quality Act
 6 (CEQA) mitigation requirements, or established federal, state, and local regulations.

- 7 • **Water Quality Monitoring.** The Port has been monitoring water quality at 31
 8 established stations in San Pedro Bay since 1967, and the water quality today at
 9 the Port is among the best of any industrialized port in the world. Samples are
 10 tested on a monthly basis for dissolved oxygen, biological oxygen demand and
 11 temperature. Other observations are noted, such as odor, color, and the presence
 12 of oil, grease, and floating solids. The overall results of this long-term
 13 monitoring initiative show the tremendous improvement in harbor water quality
 14 that has occurred over the last four decades.
- 15 • **Cabrillo Beach Water Quality Improvements.** The Port is one of the few
 16 industrial ports in the world that also has a swimming beach. Inner Cabrillo
 17 Beach provides still water for families with small children. However, in recent
 18 years, upland runoff has resulted in high levels of bacteria in shoreline waters.
 19 The Port has invested hundreds of thousands of dollars in water
 20 circulation/quality models and studies to investigate the problem. Recently, the
 21 Port repaired storm drains and sewer lines and replaced poor-quality beach sand
 22 in this area as part of its commitment to make sure that Cabrillo Beach
 23 continues to be an important regional recreational asset.
- 24 • **Consolidated Slip Restoration Task Force.** The Port is part of a multi-agency
 25 task force, including USEPA, the USACE, and the Regional Water Quality
 26 Control Board, that is planning the clean-up of contaminated sediments in the
 27 Consolidated Slip. The Port has provided funding, staff support, and other
 28 support services to this effort that will clean up one of the most polluted areas in
 29 the harbor.

30 **Habitat Management and Endangered Species**

- 31 • **California Least Tern Site Management.** The federal- and State-endangered
 32 California least tern (a species of small sea bird) nests from April through
 33 August on Pier 400 in the Port of Los Angeles adjacent to the Pier 400 container
 34 terminal. Through an interagency nesting site agreement, the Port maintains,
 35 monitors, and protects the 15-acre nesting site on Pier 400.
- 36 • **Interagency Biomitigation Team.** As part of the development of mitigation for
 37 the Deep-Draft Navigation Improvements, including the Pier 400 Landfill, the
 38 San Pedro Bay Ports helped establish an interagency mitigation team to evaluate
 39 and provide solutions for impacts of landfill and terminal construction on
 40 marine resources in the Ports. The primary agencies involved include the U.S.
 41 Army Corps of Engineers, U.S. Fish and Wildlife Service and the California
 42 Department of Fish and Game. A number of mitigation agreements have been
 43 established through this coordination, and it continues to meet as necessary to
 44 address environmental issues associated with Port development and operations.

General Port Environmental Programs

- **Green Ports Program and Pacific Rim Ports Conference.** The Ports of Los Angeles and Shanghai have signed an agreement to share technology aimed at improving air quality, improving water quality, and mitigating environmental impacts on the operations of the two ports. As a result of this collaboration, the Ports have now conducted staff exchanges and are co-founders of the Pacific Rim Ports Conference. The first of these conferences was held in Los Angeles in 2006 and hosted over 20 Pacific Rim Ports.
- **Recycling.** The Port incorporates a variety of environmental concepts into its construction projects. For example, when building an on-dock rail facility, the Port saved nearly \$1 million and thousands of cubic yards of landfill space by recycling existing asphalt pavement instead of purchasing new pavement. The Port also maintains an annual contract to crush and recycle broken concrete and asphalt. In addition, the Port has successfully used recycled plastic products, such as fender piles and protective front-row piles, in many wharf construction projects.
- **Green Building Policy.** In August 2007, the Port adopted this policy, which outlines the environmental goals for newly constructed and existing buildings; dictates the incorporation of solar power and technologies that are efficient with respect to the use of energy and water; dedicates staffing for the advancement and refinement of sustainable building practices; and maintains communication with other City Departments for the benefit of the community. The policy incorporates sustainable building design and construction guidelines based on the United States Green Building Council – Leadership in Energy and Environmental Design (USGBC – LEED) Green Building Rating System.

Port of Los Angeles Sustainable Construction Guidelines

The Port adopted the Port of Los Angeles Sustainable Construction Guidelines in February 2008. The guidelines will be used to establish air emission criteria for inclusion in construction bid specifications. The guidelines will reinforce and require sustainability measures during performance of the contracts, balancing the need to protect the environment, be socially responsible, and provide for the economic development of the Port. Future resolutions are anticipated to expand the guidelines to cover other aspects of construction, as well as planning and design. These guidelines support the forthcoming Port Sustainability Program.

The intent of the Sustainable Construction Guidelines is to facilitate the integration of sustainable concepts and practices into all capital projects at the Port, and to phase-in the implementation of these procedures in a practical yet aggressive manner. These guidelines will be made a part of all construction specifications advertised for bids.

Significant features of these Guidelines include, but are not limited to:

- All ships & barges used primarily to deliver construction related materials for Los Angeles Harbor Department (LAHD) construction contracts shall comply with the Vessel Speed Reduction Program and use low-sulfur fuel within 40 nautical miles of Point Fermin.

- 1 • Harbor craft shall meet USEPA Tier-2 engine emission standards, and the
2 requirement will be raised to USEPA Tier-3 engine emission standards by
3 January 1, 2011.
- 4 • All dredging equipment shall be electric.
- 5 • On-road heavy-duty trucks shall comply with USEPA 2004 on-road emission
6 standards for PM10 and NOx and shall be equipped with a CARB verified Level
7 3 device. Emission standards will be raised to USEPA 2007 on-road emission
8 standards for PM10 and NOx by January 1, 2012.
- 9 • Construction equipment (excluding on-road trucks, derrick barges, and harbor
10 craft) shall meet Tier-2 emission off-road standards. The requirement will be
11 raised to Tier-3 by January 1, 2012, and Tier-4 by January 1, 2015. In addition,
12 construction equipment shall be retrofitted with a California Air Resources
13 Board (CARB) certified Level 3 diesel emissions control device.
- 14 • Comply with SCAQMD Rule 403 regarding Fugitive Dust, and other fugitive
15 dust control measures.
- 16 • Additional Best Management Practices, based largely on Best Available Control
17 Technology (BACT), will be required on construction equipment (including on-
18 road trucks) to further reduce air emissions.

19 1.6.3 Port of Los Angeles Leasing Policy

20 On February 1, 2006, the Board of Harbor Commissioners approved a comprehensive
21 Leasing Policy for the Port of Los Angeles that not only establishes a formalized,
22 transparent process for tenant selection but also includes environmental requirements as
23 a provision in Port leases.

24 Specific emission-reducing provisions contained in the Leasing Policy are:

- 25 • Compliance with VSRPs
- 26 • Use of clean AMP or cold-ironing technology, plugging into shoreside electric
27 power while at dock, where appropriate
- 28 • Use of low-sulfur fuel in main and auxiliary engines while sailing within the
29 boundaries of the South Coast Air Basin
- 30 • Use of clean, low-emission trucks within terminal facilities.

31 1.6.4 Aesthetic Mitigation Projects

32 For years 2003 through 2007, the Port is depositing \$4 million per year into a
33 community aesthetic mitigation account to mitigate the aesthetic impacts of Port
34 operations on the neighboring communities of San Pedro and Wilmington. All projects
35 funded under this program shall comply with all applicable laws, rules, and regulations;
36 be Port-related projects on Port land; or be projects not on Port land that have a
37 demonstrable nexus or connection to the environmental, aesthetic, and/or public health
38 impacts of the Port's operations and facilities. Proposed Projects to receive funding
39 shall fall within the following categories, and shall be prioritized as follows:

- 1 • Open space and parks,
- 2 • Landscaping and beautification, or
- 3 • Educational, arts, and athletic facilities.

4 Proposed projects funded under this program shall be divided as evenly as possible
5 between the San Pedro and Wilmington communities. Proposed projects must:

- 6 • Mitigate existing or future impacts of Port operations on surrounding
7 communities,
- 8 • Be consistent with the State Tidelands Trust and the public trust doctrine,
- 9 • Be consistent with the Los Angeles City Charter, and
- 10 • Be consistent with the California Coastal Act, and consistent with any other
11 applicable laws and regulations.

12 **1.6.5 Port Community Advisory Committee**

13 The Port Community Advisory Committee (PCAC) was established in 2001 as a
14 standing committee of the Port of Los Angeles Board of Harbor Commissioners (Board).
15 The purposes of the PCAC are to:

- 16 • Assess the impacts of Port developments on the harbor area communities and
17 recommend suitable mitigation measures to the Board for such impacts;
- 18 • Review past, present, and future environmental documents in an open public
19 process and make recommendations to the Board to ensure that impacts to the
20 communities are appropriately mitigated in accordance with federal and
21 California law; and
- 22 • Provide a public forum and make recommendations to the Board to assist the
23 Port in taking a leadership role in creating balanced communities in
24 Wilmington, Harbor City, and San Pedro so that the quality of life is maintained
25 and enhanced by the presence of the Port.

26 The role of the PCAC in Port environmental documents is described in Appendix C.

27 **1.7 Availability of the Draft SEIS/SEIR**

28 This Draft SEIS/SEIR has been distributed directly to numerous agencies, organizations,
29 and interested groups and persons for comment during the 60-day formal review period
30 in accordance with Section 15087 of the State CEQA Guidelines and 40 CFR Section
31 1560.10 of the CEQ NEPA Regulations. During the public review period, the Draft
32 SEIS/SEIR is available for review at the following locations:

33 Los Angeles Harbor Department
34 Environmental Management Division
35 425 South Palos Verdes Street
36 San Pedro, CA 90731

1 Los Angeles Public Library
2 Central Branch
3 630 West 5th Street
4 Los Angeles, CA 90071

5 Los Angeles Public Library
6 San Pedro Branch
7 921 South Gaffey Street
8 San Pedro, CA 90731

9 Los Angeles Public Library
10 Wilmington Branch
11 1300 North Avalon Boulevard
12 Wilmington, CA 90744

13 Long Beach Public Library
14 Main Branch
15 101 Pacific Avenue
16 Long Beach, CA 90822

17 In addition to printed copies of the Draft SEIS/SEIR, members of the public can request
18 a CD-ROM which contains the Draft SEIS/SEIR. Due to the size of the document, it has
19 been prepared as a series of PDF files to facilitate downloading and printing. The Draft
20 SEIS/SEIR is also available in its entirety on the Port of Los Angeles website at:

21 http://www.portoflosangeles.org/environment/public_notices.asp.

22 **Resumen en idioma español.** Para solicitar una copia en español del Resumen
23 Ejecutivo, comuníquese con Gabe Silva al (310) 732-3915.

24 Interested parties may provide written comments on the Draft SEIS/SEIR. Please
25 address comments to:

26 Dr. Spencer D. MacNeil
27 Senior Project Manager
28 U.S. Army Corps of Engineers, Regulatory Division
29 Ventura Field Office
30 2151 Alessandro Drive, Suite 110
31 Ventura, California 93001

32 And

33 Dr. Ralph Appy
34 Director of Environmental Management
35 Port of Los Angeles
36 425 South Palos Verdes Street
37 P.O. Box 151
38 San Pedro, CA 90733-0151

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