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## Section 3.10 Marine Transportation

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### SECTION SUMMARY

4 This section describes existing marine transportation within the Port and identifies potential impacts to  
5 marine transportation including navigation and safety that would result from the implementation of the  
6 proposed Project or an alternative.

7 Section 3.10, Marine Transportation, provides the following:

- 8
- 9     ▪ A description of existing levels of marine vessel traffic in the Port area;
  - 10    ▪ A description of existing navigational hazards and factors affecting vessel traffic safety in the  
11    Port, including regulations and policies;
  - 12    ▪ A discussion of the methodology used to determine whether the proposed Project or alternatives  
13    would result in an impact to marine transportation;
  - 14    ▪ An impact analysis of both the proposed Project and alternatives; and,
  - 15    ▪ A description of any mitigation measures proposed to reduce any potential impacts, as applicable.

15

#### Key Points of Section 3.10:

16 The proposed Project and alternatives would expand an existing container terminal, and its operations  
17 would be consistent with other uses and container terminals in the Project area.

18 Under CEQA, the proposed Project, and Alternatives 5 and 6, would result in an increase of 143 ship calls  
19 per year (approximately 12 ship calls per month) when functioning at maximum capacity at 2027. This  
20 represents an increase over the 247 annual ship calls at Berths 302-305 during the CEQA baseline period  
21 of July 2008 through June 2009. The addition of 143 ship calls annually would represent an increase of  
22 seven percent over total annual ship calls of 2,010 at the Port in 2009. Under NEPA, the proposed Project,  
23 and Alternatives 5 and 6 would result in an increase of 104 ship calls per year (approximately 9 ship calls  
24 per month) when functioning at maximum capacity in 2027, compared to the NEPA baseline. This would  
25 represent an increase of approximately five percent over total annual ship calls of 2,010 at the Port in  
26 2009. The remaining build alternatives (Alternatives 2, 3, and 4 under CEQA, and Alternatives 3 and 4  
27 under NEPA) would result in fewer ship calls than the proposed Project, and Alternatives 5 and 6.

28 Neither the proposed Project nor any of the alternatives would result in a significant impact to Marine  
29 Transportation under both CEQA and NEPA. Specifically:

- 30
- 31     ▪ The proposed Project and all alternatives construction-related marine traffic would not  
32     substantially interfere with operation of designated vessel traffic lanes or impair the level of  
33     safety for vessels navigating the Main Channel, Harbor, or Precautionary Area; and,

## 3.10.1 Introduction

This section describes existing marine transportation within the Port and identifies potential impacts to marine transportation including navigation and safety that would occur as a result of implementation of the proposed Project or alternatives.

## 3.10.2 Environmental Setting

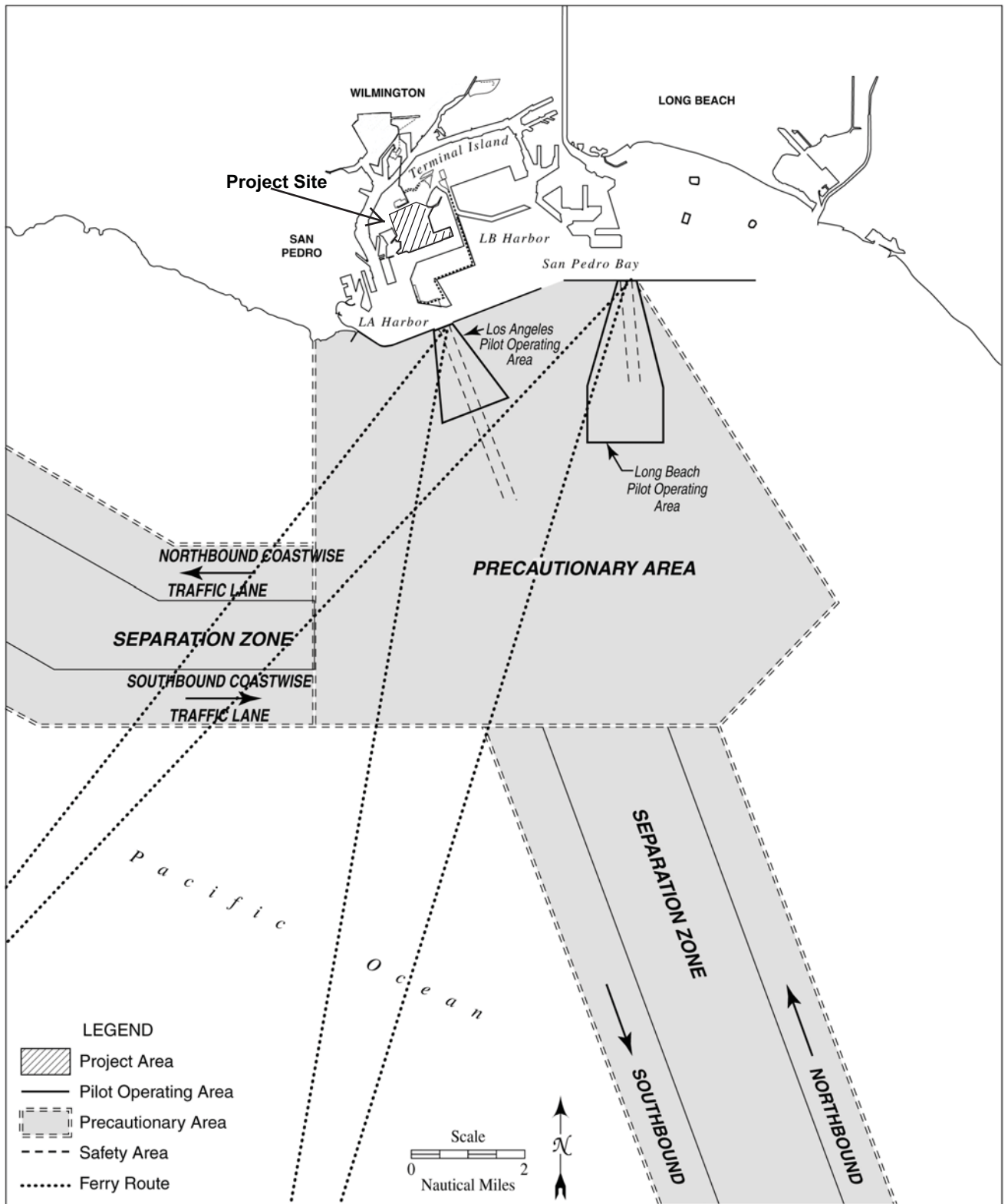
The Port is located in San Pedro Bay and is protected from Pacific Ocean surge conditions by the San Pedro, Middle, and Long Beach breakwaters (see Figure 3.10-1). The openings between these breakwaters, known as Angels Gate and Queens Gate, provide entry to the Ports of Los Angeles and Long Beach, respectively. Vessel traffic channels have been established in the Los Angeles Harbor, and numerous aids to navigation have been developed.

Numerous types of vessels, including fishing boats, pleasure vessels, passenger-carrying vessels, tankers, auto carriers, container vessels, dry bulk carriers, and barges, call or reside in the Port. When approaching and leaving the Harbor, commercial vessels follow vessel traffic lanes established by the USCG. Designated traffic lanes converge at the “Precautionary Area” (see Figure 3.10-1). The Federal Channels in the Port Complex are maintained by the USACE.

### 3.10.2.1 Vessel Transportation Safety

Several measures are in place to ensure the safety of vessel navigation in the Harbor area. The Harbor utilizes a Vessel Traffic Service (VTS) operated jointly by the USCG Captain of the Port (COTP) and the Marine Exchange of Southern California. Using shore-based radar, the VTS monitors traffic in the approach corridor traffic lanes to the Harbor and the Precautionary Zone to ensure that the total number of vessels transiting the Port does not exceed the design capacity of the federal channel limits. Container vessels are required to report their position and destination to the VTS at certain times and locations and may also request information about traffic that could be encountered in the Precautionary Area.

The Port Complex does not require the use of a Port Pilot (a local master with a small vessel who can be retained to help guide large commercial craft) for every vessel that transits in or out of the San Pedro Bay area and adjacent waterways. However, use of a Port Pilot is required for all vessels of foreign registry and U.S. vessels that do not have a federally licensed pilot on board. As most commercial vessels are of foreign registry in the Port, the number of large commercial vessels transiting without Port Pilot services is negligible. The Los Angeles and Long Beach pilot services and the Marine Exchange all operate radar systems to monitor vessel traffic in the Harbor, and information is available to all vessels upon request. The pilot services also manage the use of anchorages under an agreement with the USCG. A communication system links key operational centers: USCG COTP, VTS, Los Angeles Pilot Station, Long Beach Pilot Station, and Port of Long Beach Security. This system is used to exchange vessel-movement information and safety notices among the various organizations.



**Port of Los Angeles  
Berths 302 - 306 [APL]  
Container Terminal Project**

**Vessel Navigation Safety Areas at Port of Los Angeles and Port of Long Beach**

Figure 3.10-1

1 The Port Complex does not require the use of a Port Pilot (a local master with a small  
2 vessel who can be retained to help guide large commercial craft) for every vessel that  
3 transits in or out of the San Pedro Bay area and adjacent waterways. However, use of a  
4 Port Pilot is required for all vessels of foreign registry and U.S. vessels that do not have a  
5 federally licensed pilot on board. As most commercial vessels are of foreign registry in  
6 the Port, the number of large commercial vessels transiting without Port Pilot services is  
7 negligible. The Los Angeles and Long Beach pilot services and the Marine Exchange all  
8 operate radar systems to monitor vessel traffic in the Harbor, and information is available  
9 to all vessels upon request. The pilot services also manage the use of anchorages under  
10 an agreement with the USCG. A communication system links key operational centers:  
11 USCG COTP, VTS, Los Angeles Pilot Station, Long Beach Pilot Station, and Port of  
12 Long Beach Security. This system is used to exchange vessel-movement information and  
13 safety notices among the various organizations.

14 The USCG “Rules of the Road” apply to all marine vessels, regardless of size. To  
15 minimize the potential for accidents, all marine vessels in the Port Complex are required  
16 to follow vessel safety policies and regulations contained in the Navigation Rules:  
17 International and Inland (USCG Nav. Rule CG-169).

18 For the open seas, the International Rules apply and were ratified at the Convention on  
19 the International Regulations for Preventing Collisions at Sea, 1972. The International  
20 Rules apply to all vessels of nations that ratified the treaty, in addition to the United  
21 Nations. The International Rules include 38 numbered rules organized into five parts:  
22 A – General, B – Steering and Sailing Rules, C – Lights and Shapes, D – Sound and  
23 Light Signals, and E – Exemptions.

24 Efforts to unify and update various inland navigation rules culminated in 1980 with the  
25 enactment of the Inland Navigation Rules Act (22 CFR 83). The Inland Rules were  
26 established under the authorization of International Rule 1(b) to apply to all inland waters  
27 of the United States. The Inland Rules numbered 1 through 38 closely match, in some  
28 cases exactly, the International Rules. All marine vessels in the Port are required to  
29 follow these vessel safety policies and regulations.

30 The measures enacted to ensure safe vessel navigation are regulated by various agencies  
31 and organizations, as described below.

### 32 **3.10.2.1.1 Marine Exchange of Southern California**

33 The Marine Exchange is a voluntary, nonprofit organization affiliated with the Los  
34 Angeles Chamber of Commerce that was created to enhance navigation safety in the  
35 Precautionary Area and Harbor area of the Ports. The services provided consist of a  
36 coordinating office, specific reporting points, and very high frequency-frequency  
37 modulation (VHF-FM) radio communications used with participating vessels. Vessel  
38 traffic channels and numerous aids to navigation (e.g., operating rules and regulations)  
39 have been established in the Port. The Marine Exchange also operates the Physical  
40 Oceanographic Real Time System (PORTS) as a service to organizations making  
41 operational decisions based on oceanographic and meteorological conditions in the  
42 vicinity of the Port. The PORTS collects and disseminates accurate real-time information  
43 on tides, visibility, winds, currents, and sea swell to maritime users to assist in the safe  
44 and efficient transit of vessels in the Port area.

### 3.10.2.1.2 Vessel Traffic Service

VTS is jointly operated by the Marine Exchange and the USCG. VTS monitors traffic with shore-based radar in both the main approach and departure lanes, including the Precautionary Area, as well as internal movement inside the Harbor. VTS uses radar, radio, and visual inputs to collect real-time vessel traffic information and broadcasts traffic advisories to assist mariners. In addition, container vessels are required to report their positions and destinations to VTS at certain times and locations. They may also request information about traffic they could encounter in the Precautionary Area. Further, VTS implements the COTP's uniform procedures, including advance notification to vessel operators, vessel traffic managers, and Port Pilots identifying the locations of dredges, derrick barges, and any associated operational procedures or restrictions (e.g., one-way traffic), to ensure safe transit of vessels in and to and from the proposed Project area. In addition, a communication system links USCG COTP, VTS, Los Angeles Pilot Station, Long Beach Pilot Station, and Port of Long Beach Security. This system is used to exchange vessel movement information and safety notices among the various organizations.

### 3.10.2.1.3 Traffic Separation Schemes

A Traffic Separation Scheme (TSS) is an internationally recognized vessel routing designation, which separates opposing flows of vessel traffic into lanes, including a zone between lanes where transit is to be avoided. TSSs have been designated to help direct offshore vessel traffic along portions of the California coastline, such as the Santa Barbara Channel. Vessels are not required to use a TSS, but failure to do so, if one is available, would be a major factor for determining liability in the event of a collision. TSS designations are proposed by the USCG, but they must be approved by the International Maritime Organization (IMO), which is part of the United Nations.

### 3.10.2.1.4 Safety Fairways

Offshore waters in high traffic areas are designated as safety fairways, which mean that placement of surface structures, such as oil platforms, is prohibited to ensure safer navigation. The USACE is prohibited from issuing permits for surface structures (e.g., oil platforms) in safety fairways, which are frequently located between a port and the entry into a TSS.

### 3.10.2.1.5 Precautionary and Regulated Navigation Areas

A Precautionary Area is designated in congested areas near the Harbor entrances. The Precautionary Area enables Harbor officials to set speed limits or to establish other safety precautions for ships entering or departing the Harbor. A regulated navigation area (RNA) is a water area within a defined boundary for which federal regulations have been established under 33CFR165.1109 for vessels navigating in this area. In the Harbor, RNA boundaries match the designated Precautionary Area. For example, 33CFR 165.1152 identifies portions of the Precautionary Area as RNA.

The Precautionary Area for the Port is defined by a line that extends south from Point Fermin approximately 7 nautical miles (nm), then due east approximately 7 nm, then northeast for approximately 3 nm, and then back northwest (see Figure 3.10-1). Ships are required to cruise at speeds of 12 knots or less upon entering the Precautionary Area. A minimum vessel separation of 0.25 nm is also required in the Precautionary Area.

1 The Marine Exchange of Southern California monitors vessel traffic within the  
2 Precautionary Area.

### 3 **3.10.2.1.6 Pilotage**

4 Use of a Port Pilot for transit in and out of the San Pedro Bay area and adjacent  
5 waterways is required for all vessels of foreign registry and U.S. vessels that do not have  
6 a federally licensed pilot on board (some U.S.-flag vessels have a trained and licensed  
7 pilot onboard and, thus, are not required to use a Port Pilot while navigating through the  
8 Port). Los Angeles Harbor Pilots provide pilotage to the Ports and receive special  
9 training that is regulated by the Los Angeles/Long Beach Harbor Safety Committee.  
10 Pilots typically board the vessels at the Angels Gate entrance, and then direct the vessels  
11 to their destinations. Pilots normally leave the vessels after docking and reboard the  
12 vessels to pilot them back to sea or to other destinations within the Port. In addition,  
13 radar systems are also operated by Los Angeles Harbor Pilots to monitor vessel traffic in  
14 the Harbor area. This information is available to all vessels upon request. The pilot  
15 service also manages the use of anchorages under an agreement with the USCG.

16 The Port also enforces numerous federal navigation regulations (e.g., Port Tariffs) in the  
17 Harbor. Specifically, larger commercial vessels (i.e., greater than 300 gross tons) are  
18 required to use a federally licensed pilot when navigating inside the breakwater. In most  
19 circumstances, vessels employ the services of a federally licensed local pilot from the  
20 Los Angeles Harbor Pilots. When a local pilot is not used, masters must have a local  
21 federal pilot license and receive approval from the USCG COTP prior to entering or  
22 departing the Port. Port Tariffs also require vessels to notify the affected pilot station(s)  
23 in situations when a pilot is not needed before entering, leaving, shifting, or moving  
24 between the Ports.

### 25 **3.10.2.1.7 Tug Escort/Assist for Tank Vessels**

26 “Tug Escort” refers to the stationing of tugs in proximity to a vessel as it transits into port  
27 to provide immediate assistance should a steering or propulsion failure develop. “Tug  
28 Assist” refers to the positioning of tugs alongside a vessel and applying force to assist in  
29 making turns, reducing speed, providing propulsion, and docking. Commercial container  
30 vessels, as well as most of the ocean-going vessels, are required to have tug assistance in  
31 the Harbor (Los Angeles/Long Beach Harbor Safety Committee, 2004). However, some  
32 vessels have internal “tugs” (typically bow and stern thrusters) that allow the vessel to  
33 propel without engaging the main engines, thus can accomplish maneuvers with the same  
34 precision as a tug-assisted vessel. These ships are not required to have external tug  
35 assistance. No vessels using internal tugs would be associated with the proposed Project.

### 36 **3.10.2.1.8 Physical Oceanographic Real Time System**

37 In partnership with NOAA, National Ocean Service (NOS), California Office of Spill  
38 Prevention and Response (OSPR), USGS, and some businesses operating in the Ports, the  
39 Marine Exchange operates PORTS as a service to those making operational decisions  
40 based on oceanographic and meteorological conditions in the vicinity of the Port.  
41 PORTS is a system of environmental sensors and supporting telemetry equipment that  
42 gathers and disseminates accurate real-time information on tides, visibility, winds,  
43 currents, and sea swell to maritime users to assist in the safe and efficient transit of  
44 vessels in the Port area. Locally, PORTS is designed to provide crucial information in

1 real time to mariners, oil spill response teams, managers of coastal resources, and others  
2 about Harbor water levels, currents, salinity, and winds.

3 The instruments that collect the PORTS information are deployed to provide data at  
4 critical locations and to allow “now-casting” and forecasting using a mathematical model  
5 of the oceanographic processes of the Harbor. Data from the sensors are fed into a  
6 central collection point. Raw data from the sensors are integrated and synthesized into  
7 information and analysis products, including graphical displays of PORTS data.

8 The Harbor Safety Plan (HSP) contains additional procedures for vessels operating in the  
9 Port vicinity. The vessel operating procedures stipulated in the HSP are considered Good  
10 Marine Practice. Some of the procedures are federal, state, or local regulations, while  
11 other guidelines are non-regulatory “Standards of Care.” Port Tariffs also contain  
12 requirements for marine vessel activity within Port jurisdiction. Another important safety  
13 measure is the issuance of the weekly Local Notice to Mariners by the USCG. These  
14 notices list various activities that could pose a hazard to mariners in the Port.

### 15 **3.10.2.2 Navigational Hazards**

16 Port Pilots can easily identify fixed navigational hazards in the Ports, including  
17 breakwaters protecting the outer Harbor, anchorage areas, and various wharfs and  
18 landmasses that compose the Harbor complex. These hazards are easily visible on radar  
19 and are currently illuminated. Four bridges cross the navigation channels of both Ports.  
20 All bridges have restricted vertical clearances, and two have restricted horizontal  
21 clearances as well.

22 Vessels that are waiting to enter the Harbor and moor at a berth can anchor at the  
23 anchorages outside and inside the breakwaters. Vessels do not require tug assistance to  
24 anchor outside the breakwater. The Port currently does not have any available  
25 anchorages inside the breakwater. For safety reasons, VTS will not assign an anchorage  
26 in the first row of sites closest to the breakwater to vessels longer than 656 ft  
27 (200 meters).

28 Vessels are required by law to report failures of navigational equipment, propulsion,  
29 steering, or other vital systems to the USCG via the COTP office or the COTP  
30 representative at VTS as soon as possible. According to the VTS, approximately 1 in  
31 100 vessels calling at the Port Complex experiences a mechanical failure during their  
32 inbound or outbound transit.

#### 33 **3.10.2.2.1 Vessel Accidents**

34 Although marine safety is thoroughly regulated and managed, accidents can occur during  
35 marine navigation. Marine vessel accidents include vessel collisions (between two  
36 moving vessels); allisions (between a moving vessel and a stationary object, including  
37 another vessel), and vessel groundings. As shown in Table 3.10-1, the number of vessel  
38 allisions, collisions, and groundings (ACGs) in the Harbor has remained fairly constant  
39 between 1996 and 2009. The number of ACGs ranged from 3 to 12 per year between  
40 1996 and 2009, at an average of seven ACG incidents per year (U.S. Naval Academy,  
41 1999; Los Angeles/Long Beach Harbor Safety Committee, 2004, 2007, and 2011). While  
42 there are no reliable data on the level of recreational boating incidents in the Harbor over  
43 this period, the level of commercial traffic transits has remained fairly constant ( $\pm$  2  
44 percent). During this time, there has also been a large amount of construction and

1 channel deepening within the Ports. Each of these accidents was subject to a USCG  
 2 marine casualty investigation, and the subsequent actions taken were targeted at  
 3 preventing future occurrences.

4 According to the USCG vessels accidents database, the Harbor area has one of the lowest  
 5 accident rates among all U.S. ports, with a 0.0038 percent probability of a vessel  
 6 experiencing an ACG during a single transit, as compared to the average 0.025 percent  
 7 ACG probability for all U.S. ports (U.S. Naval Academy, 1999).

**Table 3.10-1: Allisions, Collisions, and Groundings – Port Complex (1996-2009)**

Year	ACG Incidents			Total
	Allisions	Collisions	Groundings	
1996	2	4	1	7
1997	1	3	2	6
1998	1	2	3	6
1999	3	4	2	9
2000	3	2	1	6
2001	4	1	0	5
2002	6	5	0	11
2003	4	2	2	8
2004	2	4	6	12
2005	0	1	3	4
2006	4	0	5	9
2007	3	1	6	10
2008	1	1	1	3
2009	3	0	0	3

Source: Los Angeles/Long Beach Harbor Safety Committee, 2004, 2007, and 2011; U.S. Naval Academy, 1999

Note: These commercial vessel accidents meet a reportable level defined in 46 CFR 4.05, but do not include commercial fishing vessel or recreational boating incidents.

### 8 3.10.2.2.2 Close Quarters

9 To avoid vessels passing too close together, the VTS documents, reports, and takes action  
 10 on “close-quarters” situations. VTS close-quarters situations are described as vessels  
 11 passing an object or another vessel closer than 0.25 nm, or 500 yards. These incidents  
 12 usually occur in the Precautionary Area. No reliable data are available for close-quarters  
 13 incidents outside the VTS area. Normal action taken in response to close-quarters  
 14 situations includes initiating informal USCG investigation, sending Letters of Concern to  
 15 owners and operators, having the involved vessel master visit VTS and review the  
 16 incident, and USCG enforcement boardings. A 6-year history of the number of  
 17 close-quarters situations is presented in Table 3.10-2. Recent near-miss data for 2006  
 18 through 2008 were obtained from the 2009 Harbor Safety Plan, which is also included in  
 19 Table 3.10-2 (Los Angeles/Long Beach Harbor Safety Committee, 2009). Given the  
 20 relatively steady number of commercial transits over the past 5 years, a decreasing trend  
 21 in close-quarters incidents is discernable (Los Angeles/Long Beach Harbor Safety  
 22 Committee, 2007 and 2009). This is noticeable in the low number of near-miss situations  
 23 from 2006 to 2008.



**Table 3.10-2: Number of VTS-Recorded Close-Quarters Incidents, 1998-2009**

Year	No. of Close Quarters
1998	9
1999	5
2000	1
2001	2
2002	6
2003	4
2004	0
2005	0
2006	0
2007	1
2008	1
2009	5

Source: Los Angeles/Long Beach Harbor Safety Committee, 2007 and 2009.

### 3.10.2.3 Factors Affecting Vessel Traffic Safety

This section summarizes environmental conditions that could affect vessel safety in the Harbor area.

#### 3.10.2.3.1 Fog

Fog is a well-known weather condition in southern California. Harbor area fog occurs most frequently in April and from September through January, when visibility over the San Pedro Bay is below 0.5 mile for 7 to 10 days per month. Fog at the Port is mostly a land (radiation) type fog that drifts offshore and worsens in the late night and early morning. Smoke from nearby industrial areas often adds to its thickness and persistence. Along the shore, fog drops visibility to less than 0.5 mile on 3 to 8 days per month from August through April and is generally at its worst in December (Los Angeles/Long Beach Harbor Safety Committee, 2004).

#### 3.10.2.3.2 Winds

Wind conditions vary widely, particularly in fall and winter. Winds can be strongest when the Santa Ana winds (prevailing winds from the northeast occurring from October through March) blow. The Santa Ana winds, though infrequent, may be violent. A Santa Ana condition occurs when a strong high-pressure system resides over the plateau region of Nevada and Utah and generates a northeasterly to easterly flow over Southern California. Aside from weather forecasts, one gets little warning of a Santa Ana wind onset. Good visibility and unusually low humidity often prevail for some hours before it arrives. Shortly before arriving on the coast, the Santa Ana may appear as an approaching dark brown dust cloud. This positive indication often provides a 10- to 30-minute warning. The Santa Ana wind may come at any time of day and can be reinforced by an early morning land breeze or weakened by an afternoon sea breeze (Los Angeles/Long Beach Harbor Safety Committee, 2004).

1 Winter storms produce strong winds over San Pedro Bay, particularly southwesterly  
2 through northwesterly winds. Winds of 17 knots or greater occur about 1 to 2 percent of  
3 the time from November through May. Southwesterly through westerly winds begin to  
4 prevail in the spring and last into early fall (Los Angeles/Long Beach Harbor Safety  
5 Committee, 2004).

### 6 **3.10.2.3.3 Tides**

7 The mean range of tide is 3.8 ft for the Port. The diurnal range is about 5.4 ft, and a  
8 range of 9 ft may occur at maximum tide.

### 9 **3.10.2.3.4 Currents**

10 The tidal currents follow the axes of the channels and rarely exceed 1 knot. The Harbor  
11 area is subject to seiches (i.e., waves that surge back and forth in an enclosed basin as a  
12 result of earthquakes) and surge, with the most persistent and conspicuous oscillation  
13 having about a 1-hour period. Near Reservation Point, the prominent hourly surge causes  
14 velocity variations as great as 1 knot. These variations often overcome the lesser tidal  
15 current, so that the current ebbs and flows at 0.5-hour intervals. The more restricted  
16 channel usually causes the surge through the Back Channel to reach a greater velocity at  
17 the east end of Terminal Island, rather than west of Reservation Point. In the Back  
18 Channel, hourly variation may be 1.5 knots or more. At times, the hourly surge, together  
19 with shorter, irregular oscillations, causes a very rapid change in water height and current  
20 direction/velocity, which may endanger vessels moored at the piers (Los Angeles/Long  
21 Beach Harbor Safety Committee, 2004).

22 The USACE ship navigation studies indicate that in the Port channels, current  
23 magnitudes are essentially a negligible one-third knot or less. Maximum current velocity  
24 in the Angels Gate area is less than one knot. These current magnitudes, determined  
25 during a simulation study, are depth-averaged values over three layers. According to  
26 Jacobsen Pilot Service, the Long Beach Queens Gate has deeper water than Angels Gate  
27 and has more open waterways just inside the breakwater. The pilots have never  
28 experienced a current greater than one knot in this area (Los Angeles/Long Beach Harbor  
29 Safety Committee, 2004).

### 30 **3.10.2.3.5 Water Depths**

31 The USACE maintains the Federal Channels in the Port Complex. Table 3.10-3 includes  
32 the water depth at various locations in the Harbor.

33

**Table 3.10-3: Water Depths within the Port of Los Angeles**

Channel/Basin	Depth – MLLW ft (m)
Main Channel	-53 (-16.2)
Turning Basin	-53 (-16.2)
West Basin	-53 (-16.2)
East Basin	-45 (-13.7)
Pier 300/400 Channel	-55 (-16.8)
North Turning Basin	-81 (-24.7)
Approach and Entrance Channels	-81 (-24.7)

Source: Los Angeles/Long Beach Harbor Safety Committee, 2009.

### 1 **3.10.2.4 Vessel Traffic**

2 A total of 2,010 vessels were called at the Port in 2009. Vessel traffic to the Port was  
 3 relatively constant through 2007, but has declined over the last two years, as indicated in  
 4 Table 3.10-4. The increase in cargo volumes prior to 2009 has been accommodated  
 5 primarily by larger vessels, rather than additional vessels.

**Table 3.10-4: Ship Calls at the Port of Los Angeles**

Year	Ship Calls
1997	2,786
1998	2,569
1999	2,630
2000	3,060
2001	2,717
2002	2,526
2003	2,660
2004	2,850
2005	2,500
2006	2,701
2007	2,537
2008	2,239
2009	2,010

Source: USACE and POLA, 2009; POLA, 2010.

6 Commercial vessel traffic in the Pier 300 Channel consists mostly of container shipping  
 7 associated with the APL Terminal (Berths 302-305) and the APM Terminal  
 8 (Berths 401-406), with an average of approximately 1-2 vessels per day transiting the  
 9 Pier 300 Channel to support these terminals.

## 3.10.3 Applicable Regulations

Many laws and regulations are in place to regulate marine terminals, vessels calling at marine terminals, and emergency response/contingency planning. Responsibilities for enforcing or executing these laws and regulations are governed by various federal and local agencies, as described below.

### 3.10.3.1 Federal Agencies

A number of federal laws regulate marine terminals and vessels. In general, these laws address design and construction standards, operational standards, and spill prevention and cleanup. Regulations to implement these laws are contained primarily in Titles 33 (Navigation and Navigable Waters), 40 (Protection of Environment), and 46 (Shipping) of the *Code of Federal Regulations*.

Since 1789, the federal government has authorized navigation channel improvement projects; the General Survey Act of 1824 established the role of the USACE as the agency responsible for the navigation system. Since then, ports have worked in partnership with the USACE to maintain waterside access to port facilities.

### 3.10.3.2 U.S. Coast Guard

The USCG, through Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping) of the CFR, is the federal agency responsible for vessel inspection, marine terminal operations safety, coordination of federal responses to marine emergencies, enforcement of marine pollution statutes, marine safety (navigation aids), and operation of the National Response Center (NRC) for spill response. Current USCG regulations require a federally licensed pilot aboard every tanker vessel mooring and unmooring at offshore marine terminals. At the request of the USCG, the Los Angeles Pilots and Jacobsen Pilots have agreed to ensure continuous service of a licensed pilot for vessels moving between the Port Complex outside the breakwaters.

### 3.10.3.3 Department of Defense

The Department of Defense (DoD), through the USACE, is responsible for reviewing all aspects of a project and spill response activities that could affect navigation. The USACE Operations and Maintenance (O&M) program is responsible for maintaining navigation channels, removing navigation obstructions, and accomplishing structural repairs. The USACE has regulatory jurisdiction under Section 10 of the River and Harbor Act of 1899 for all work and structures in, over, or under navigable waters that could affect navigable capacity.

### 3.10.3.4 Other Organizations

#### 3.10.3.4.1 Marine Exchange of Southern California

As described in Section 3.10.2.1, Vessel Transportation Safety, the Marine Exchange is a non-profit organization affiliated with the Los Angeles Chamber of Commerce. The organization is supported by subscriptions from Port-related organizations that recognize the need for such an organization and use its services. This voluntary service is designated to enhance navigation safety in the Precautionary Area and Harbor area of the Ports. The Marine Exchange monitors vessel traffic in the Precautionary Area and

1 operates PORTS (see Section 3.10.2.1) as a service to those making operational decisions  
2 based on oceanographic and meteorological conditions in the vicinity of the Ports.

#### 3 **3.10.3.4.2 Harbor Safety Committee**

4 The Los Angeles/Long Beach Harbor Safety Committee (Committee) is responsible for  
5 planning the safe navigation and operation of tankers, barges, and other vessels in San  
6 Pedro Bay and approach areas. This Committee was created under the authority of  
7 Government Code Section 8670.23(a), which requires the Administrator of the Office of  
8 Oil Spill Prevention and Response to create a Harbor Safety Committee for the  
9 Los Angeles/ Long Beach Harbor area. The Committee issued the original HSP in 1991  
10 and has issued annual updates since. Major issues facing the Committee include the need  
11 for escort tugs, required capabilities of escort tugs, and need for new or enhanced vessel  
12 traffic information systems to monitor and advise vessel traffic.

13 The Committee developed a regulatory scheme to institutionalize Good Marine Practices  
14 and guide those involved in moving tanker vessels, which include the minimum standards  
15 that are applicable under favorable circumstances and conditions. The master or pilot  
16 shall arrange for additional tug assistance if bad weather, unusual port congestion, or  
17 other circumstances so require.

#### 18 **3.10.3.4.3 Harbor Safety Plan**

19 The HSP provides specific rules for navigation of vessels in reduced visibility conditions.  
20 The HSP does not recommend transit for vessels greater than 150,000 deadweight  
21 tonnage (DWT) if visibility is less than 1 nm. For all other vessels, transit is not  
22 recommended if visibility is less than 0.5 nm.

23 The HSP establishes vessel speed limits. In general, speeds should not exceed 12 knots  
24 inside the Precautionary Area or 6 knots in the Harbor. These speed restrictions do not  
25 preclude the master or pilot from adjusting speeds to avoid or mitigate unsafe conditions.  
26 Weather, vessel maneuvering characteristics, traffic density, construction, dredging, and  
27 other possible issues are taken into account.

#### 28 **3.10.3.4.4 Vessel Transportation Service**

29 As described previously, VTS is a shipping service operated by USCG or public/private  
30 sector consortiums (see Section 3.10.2.1). These services monitor traffic in both  
31 approach and departure lanes, as well as internal movement in Harbor areas. These  
32 services use radar, radio, and visual inputs to gather real time vessel traffic information  
33 and broadcast traffic advisories and summaries to assist mariners. The VTS that services  
34 the Port Complex is located at the entrance of the Los Angeles/Long Beach Harbor area.  
35 The system is owned by the Marine Exchange and is operated jointly by the Marine  
36 Exchange and the USCG under the oversight of the OSPR and the Harbor Safety  
37 Committee.

38 This system provides information on vessel traffic and ship locations so that vessels can  
39 avoid collisions, allisions, and groundings in the approaches to the Harbor. The VTS  
40 assists in the safe navigation of vessels approaching the Port in the Precautionary Area.  
41 The partnership is a unique and effective approach that has gained acceptance from the  
42 maritime community.

## 3.10.4 Impacts and Mitigation Measures

### 3.10.4.1 Methodology

Impacts on marine transportation are assessed by determining the net increase in vessel traffic resulting from the proposed Project or an alternative compared to the ability of the Port to safely accommodate vessel traffic and the potential for proposed Project- or alternative-related activities during both construction and operation to increase risks to vessel traffic. Existing regulations regarding vessel safety are designed to avoid potential impacts and are considered standard practice.

#### 3.10.4.1.1 CEQA Baseline

Section 15125 of the CEQA Guidelines requires EIRs to include a description of the physical environmental conditions in the vicinity of a project that exist at the time of the NOP. These environmental conditions normally would constitute the baseline physical conditions by which the CEQA lead agency determines if an impact is significant. For purposes of this Draft EIS/EIR, the CEQA baseline for determining the significance of potential Project impacts is the environmental set of conditions that prevailed at the time the NOP was published for the proposed Project - July 2009. The CEQA baseline takes into account the throughput for the 12-month period preceding July 2009 (July 2008 through the end of June 2009) in order to provide a representative characterization of activity levels throughout the year. The CEQA baseline conditions are described in Section 2.6.1. The CEQA baseline for this proposed Project includes approximately 1.13 million TEUs per year, 998,728 annual truck trips, and 247 annual ship calls that occurred on the 291-acre APL Terminal in the year prior to and including June 2009.

The CEQA baseline represents the setting at a fixed point in time and differs from the No Project Alternative (Alternative 1) in that the No Project Alternative addresses what is likely to happen at the proposed Project site over time, starting from the existing conditions. Therefore, the No Project Alternative allows for growth at the proposed Project site that could be expected to occur without additional approvals, whereas the CEQA baseline does not.

#### 3.10.4.1.2 NEPA Baseline

For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined by comparing the proposed Project or other alternative to the NEPA baseline. The NEPA baseline conditions are described in Section 2.6.2. Briefly, the NEPA baseline condition for determining significance of impacts includes the full range of construction and operational activities the applicant could implement and is likely to implement absent a federal action, in this case the issuance of a USACE permit. The NEPA baseline includes minor terminal improvements in the upland area (i.e., conversion of a portion of the dry container storage unit area to reefers and utility infrastructure), operation of the 291-acre container terminal, and assumes that by 2027, the terminal (Berths 302 to 305) handles up to approximately 2.15 million TEUs annually and accommodates 286 annual ships calls and 2,336 on-way rail trips, without any federal action. Because the NEPA baseline is dynamic, it includes different levels of terminal operations at each study year (2012, 2015, 2020, 2025, and 2027).

Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA baseline is not bound by statute to a “flat” or “no-growth” scenario. Therefore, the

1 USACE could project increases in operations over the life of a project to properly  
2 describe the NEPA baseline condition. Normally, any federal permit decision would  
3 focus on direct impacts of the proposed Project to the aquatic environment, as well as  
4 indirect and cumulative impacts in the uplands determined to be within the scope of  
5 federal control and responsibility. Significance of the proposed Project or alternative  
6 under NEPA is defined by comparing the proposed Project or alternative to the NEPA  
7 baseline (i.e., the increment).

8 The NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal  
9 Action Alternative. Under the No Federal Action Alternative, only minor terminal  
10 improvements (utility infrastructure, and conversion of dry container storage to  
11 refrigerated container storage) would occur, but no new cranes would be added, and the  
12 terminal configuration would remain as it was configured in 2008 (291 acres, 12 A-frame  
13 cranes, and a 4,000-ft wharf). However, forecasted increases in cargo throughput and  
14 annual ship calls would still occur as container growth occurs.

### 15 3.10.4.2 Thresholds of Significance

16 There are no marine transportation thresholds specific to NEPA; therefore, the CEQA  
17 thresholds are used for both NEPA and CEQA analysis.

18 According to the *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006), the  
19 determination of significance for marine transportation impacts shall be made on a  
20 case-by-case basis. While this document does not include specific provisions regarding  
21 marine transportation, the following criterion was developed in cooperation with the Port.  
22 The proposed Project or alternative would have a significant impact on marine  
23 transportation if it would:

24 **VT-1** Substantially interfere with the operation of designated vessel traffic lanes  
25 and/or impair the level of safety for vessels navigating the Main Channel,  
26 Harbor, or Precautionary Area.

### 27 3.10.4.3 Impact Determination

#### 28 3.10.4.3.1 Proposed Project

29 **Impact VT-1: Proposed Project construction- and operation-related**  
30 **marine traffic would not substantially interfere with operation of**  
31 **designated vessel traffic lanes and/or impair the level of safety for**  
32 **vessels navigating the Main Channel, Harbor, or Precautionary Area.**

33 Construction of the proposed terminal improvements would include dredging of  
34 approximately 20,000 cy along Berth 306 (and associated beneficial reuse and/or disposal  
35 of the dredged material at approved sites) to increase the berth depth to -55 ft MLLW  
36 plus an additional two ft of overdepth to accommodate larger deeper draft vessels. In  
37 addition, the existing wharf would be extended by approximately 1,250 lf at Berth 306  
38 would be constructed (no fill or dike would be required). The wharf would be extended  
39 eastward from the existing Berth 305 to the area where Berth 306 would be created.  
40 Wharf construction would include pile driving. The piles would be transported to the site  
41 by truck and thus not require in-water transport.

42 Under the proposed Project, a total of 12 new A-frame cranes would be installed on the  
43 wharf at Berths 302-306. Their installation would require the use of general cargo ships

1 for delivery to the proposed Project site. Initially, four cranes would be installed by the  
2 beginning of 2013, and the remaining eight cranes would be installed by the end of 2014.

3 The types of marine-based construction equipment and the duration of its use at the  
4 proposed Project site are presented in Table 3.10-5. Phase I in-water and over-water  
5 construction extends over a 24-month period during which equipment would be active for  
6 a total of 46 workdays. When weighted by the number of pieces of equipment, this  
7 equates to 93 equipment workdays. On average, there would be 0.13 pieces of  
8 equipment active daily over the 730 days during in-water/over-water construction. No  
9 in-water/over-water construction would occur during Phase II.

10 The construction of the wharf extension and Berth 306 would last approximately 22  
11 months (beginning around the fourth quarter of 2012). The initial new crane delivery is  
12 expected by the third quarter of 2012 and additional crane deliveries in the third quarter  
13 of 2014. Delivery and installation of the A-frame cranes would last up to one (1) month  
14 in 2012 and again in 2014. Delivery of the cranes would occur by general cargo vessel  
15 with one tugboat, and up to four cranes would be carried by one vessel.

**Table 3.10-5: Marine-Based Construction Equipment Associated with the Proposed Project**

Proposed Project Element	Activity	Equipment Type	Number of Active Equipment	Duration of Activity (Workdays)	Total Active Equipment Workdays
<b>New Wharf and Dredging</b>					
Construct a 1,250-lf Wharf at Berth 306	Pile driving/dredging	Derrick Barge Crane Hoist	1	44	44
		Support Boat	1	44	44
Crane Delivery and Installation		General Cargo Ship – Transit	1	2	2
		General Cargo Ship – Hoteling	1	7	1
		Tugboat	1	2	2
<b>Total (Phase I)</b>			<b>5</b>	<b>93</b>	<b>93</b>
<b>Average Number of Marine Equipment Workdays</b>					<b>0.13</b>

16 As discussed in Section 2.5.2.1, dredging activities at Berth 306 (Phase I) would require  
17 the presence of a dredge and associated equipment, likely an electronic dredge with a  
18 clamshell dredge (derrick barge) or a crane mounted on a barge with a clamshell bucket,  
19 and an associated support vessel (i.e., dive boat) for approximately one month.

20 Depending upon the quality of the dredge sediments and site availability, dredged  
21 material would be beneficially reused and/or disposed of at an approved disposal site  
22 (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat). If these  
23 options are unavailable or impracticable, an existing ocean disposal site could be  
24 considered (i.e., LA-2).



1 In-water/over-water construction activities in the Pier 300 Channel are not expected to  
2 result in substantial hazards to vessel traffic or substantially increase the potential for  
3 accidents. Currently, the Pier 300 Channel experiences a relatively low volume of  
4 commercial vessel traffic, averages between 1-2 vessel trips per day.<sup>1</sup> Due to the  
5 staggered nature of construction activities, the APL Terminal would be partially  
6 operational as construction continues, which would slightly increase the number of  
7 vessels transiting the Pier 300 Channel.

8 Although marine-based construction equipment could restrict some vessel movement  
9 inside the Pier 300 Channel during the one month dredging period, the derrick and  
10 support boat would be highly visible, well-marked, and relatively stationary. In-  
11 water/over-water construction activities are conducted routinely in the Port; and  
12 contractors performing in-water/over-water construction activities are subject to  
13 applicable rules and regulations stipulated in all LAHD contracts, including navigation  
14 hazard markings. Prior to activities that require anchoring vessels in the main navigation  
15 channels, the standard vessel safety regulations of the Port require dredging contractors to  
16 acquire an Anchorage Waiver Permit. An Anchorage Waiver Permit, issued by the  
17 USCG, requires notifying the COTP of expected activities, providing official and  
18 ongoing notice to mariners during construction, developing a mooring plan, and marking  
19 equipment and any debris for visibility. Compliance with Anchorage Waiver Permit  
20 requirements would ensure compliance with regulations governing the Outer Harbor of  
21 the Port and main navigation channel areas during construction of the proposed Project.  
22 Because standard safety precautions would be utilized by all contractors, the presence of  
23 the derrick/support boat would not substantially affect marine vessel safety in the main  
24 channels and connected basin areas. Accordingly, proposed in-water construction  
25 equipment would not interfere with existing operations at Pier 300 berths, including APL  
26 Terminal and the APM Terminal operations at Berths 401-406.

27 By year 2027, the projected operational throughput at the APL Terminal is 3,206,000 (or  
28 3.2 million) TEUs annually. The projected annual vessel traffic represents an increase  
29 over the existing (baseline) operational conditions as shown below. The proposed Project  
30 would result in approximately 390 annual ship calls per year (approximately 33 vessel  
31 calls per month) when functioning at maximum capacity in 2027, compared to the  
32 existing baseline conditions.

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<sup>1</sup> No vessel traffic data specific to Pier 300 Channel are currently available. The average of daily commercial traffic presented here is based on combined annual throughput (existing levels) for the APL Terminal (Pier 300) and APM Terminal (Pier 400), since these are the major users. The APL Terminal has a current throughput of 1,128,080 annual TEUs, with approximately 247 annual ship calls (494 associated tug trips). The APM Terminal throughput for 2010 was 1,880,000 TEUs. Using the APL Terminal's average TEUs per ship (i.e., 4,567 TEUs per ship), the annual number of ship calls at the APM Terminal would be approximately 412 (824 associated tug trips). Therefore, the average vessel traffic in the Pier 300 Channel is estimated to be 1.8 ship calls currently. The source of APM Terminal throughput is available at: [http://www.apmterminals.com/uploadedFiles/corporate/Media\\_Center/Press\\_Releases/110323-APM-Terminals-PMA-Safety-Awards-2010.pdf](http://www.apmterminals.com/uploadedFiles/corporate/Media_Center/Press_Releases/110323-APM-Terminals-PMA-Safety-Awards-2010.pdf)

**Table 3.10-6: Existing and Projected Annual Ship Calls at Berths 302-306 at Full Build-out (2027)**

Activity	CEQA Baseline (July 2008- June 2009)	NEPA Baseline Year 2027	Proposed Project (2027)	Annual Increase	
				Project Compared to CEQA Baseline	Project Compared to NEPA Baseline
Ship Calls	247	286	390	+143	+104

1 Although the increase in annual ship calls (143) would increase vessel traffic in the  
2 Pier 300 Channel, Outer Harbor, and Precautionary Area, the proposed Project would not  
3 significantly increase vessel congestion within these areas or in the open-ocean approach  
4 corridors.

5 The proposed Project would also improve overall conditions in the Harbor by extending  
6 the existing wharf by 1,250 lf and creating the new Berth 306, which would be sized to  
7 accommodate modern, deep-draft vessels with greater cargo capacity. The new  
8 deep-draft berth is expected to improve shipping and Port operations by helping to  
9 accommodate increased efficiencies associated with larger ship capacities to meet future  
10 Port throughput demands rather than meeting that demand with a higher number of  
11 smaller vessels. The design parameters of the new wharf at Berth 306 would continue to  
12 allow for safe maneuvering within the Pier 300 Channel of all ships that currently call at  
13 Berths 302-305 (north side of channel) and Berths 401-406 (south side of channel). The  
14 dredging along Berth 306 would ensure that the larger, deep-draft ships would be able to  
15 navigate and berth safely.

16 Given the continued use of standard practices, including adherence to HSP speed-limit  
17 regulations, adherence to limited-visibility guidelines, VTS monitoring requirements, and  
18 Port tariffs requiring vessels of foreign registry and U.S. vessels that do not have a  
19 federally licensed pilot on board to use a Port Pilot for transit in and out of the San Pedro  
20 Bay area and adjacent waterways, the projected increase in annual ship calls in the Pier  
21 300 Channel at Berths 302-306 would not significantly decrease the margin of safety for  
22 marine vessels in the proposed Project area. Scheduling of ship calls from outside the  
23 breakwaters to Berths 302-306 would continue to be authorized by the COTP to ensure  
24 that the projected increase in vessel traffic would not result in changes to routing or  
25 vessel safety procedures. Continued implementation of COTP uniform procedures,  
26 including providing advanced notification to vessel operators, vessel traffic managers,  
27 and Port Pilots to identify the location of dredges, derrick barges, or other possible  
28 obstructions and any associated operational procedures or restrictions (e.g., one-way  
29 traffic), would ensure safe transit of vessels operating within and to and from the  
30 proposed Project site.

### 31 **CEQA Impact Determination**

32 The increase in construction vessels (approximately five vessels during the 24-month  
33 construction period) in the Pier 300 Channel is not expected to significantly increase the  
34 potential accident risk for vessel navigation or navigation safety. Therefore, construction  
35 impacts on vessel traffic would be less than significant under CEQA.

36 The proposed Project would result in an increase of 143 ship calls per year  
37 (approximately 12 ship calls per month) when functioning at maximum capacity in 2027,

1 compared to the existing 247 ship calls under the CEQA baseline period. The addition  
2 of 143 ship calls annually would represent an increase of just over seven percent over  
3 total annual ship calls of 2,010 at the Port Complex in 2009. Although the additional  
4 143 ship calls per month would increase vessel traffic in the Pier 300 Channel, Outer  
5 Harbor, and Precautionary Area, the proposed Project would not significantly increase  
6 vessel congestion or compromise safety within these areas or in the open-ocean approach  
7 corridors. Therefore, vessel congestion and safety impacts associated with operation of  
8 the proposed Project would be less than significant under CEQA.

9 *Mitigation Measures*

10 No mitigation is required.

11 *Residual Impacts*

12 Impacts would be less than significant.

13 **NEPA Impact Determination**

14 The increase in construction vessels (approximately five vessels during the 24-month  
15 construction period) in the Pier 300 Channel is not expected to significantly increase the  
16 potential accident risk for vessel navigation or navigation safety. Therefore, construction  
17 impacts on vessel traffic would be less than significant under NEPA.

18 The proposed Project operations would result in a maximum of 390 ship calls per year by  
19 2027. This would result in an increase of 104 ship calls per year (approximately nine  
20 ship calls per month) when functioning at maximum capacity in 2027, compared to the  
21 NEPA baseline. This would represent an increase of just about five percent over total  
22 annual ship calls of 2,010 at the Port in 2009.

23 Although the additional 104 ship calls would increase vessel traffic in the Pier 300  
24 Channel, Outer Harbor, and Precautionary Area, the proposed Project would not  
25 significantly increase vessel congestion in the open-ocean approach corridors or result in  
26 adverse safety impacts under NEPA.

27 *Mitigation Measures*

28 No mitigation is required.

29 *Residual Impacts*

30 Impacts would be less than significant.

31 **3.10.4.3.2 Alternatives**

32 Table 3.10-7 provides a comparison of annual ship calls under the proposed Project to the  
33 six Project alternatives discussed below.

**Table 3.10-7: Comparison of Ship Calls under the Proposed Project and Alternatives (2012-2027)**

Alternative	2012	2015	2020	2025	2027
<b>Proposed Project</b>	234	286	338	364	390
<b>Alternative 1 – No Project</b>	234	234	234	286	286
<b>Alternative 2 –No Federal Action</b>	234	234	234	286	286
<b>Alternative 3 – Reduced Project: Four New Cranes</b>	234	234	286	338	338
<b>Alternative 4 – Reduced Project: No New Wharf</b>	234	234	286	338	338
<b>Alternative 5 – Reduced Project: No Space Assignment</b>	234	286	338	364	390
<b>Alternative 6 – Proposed Project with Expanded On-Dock Railyard</b>	234	286	338	364	390

### 3.10.4.3.2.1 Alternative 1 – No Project

Under Alternative 1, no further Port action or federal action would occur. The Port would not construct and develop additional backlands, wharves, or terminal improvements. No new cranes would be added, no gate or backland improvements would occur, and no infrastructure for AMP at Berth 306 or automation in the backland area adjacent to Berth 306 would be provided. This alternative would not include any dredging, new wharf construction, or new cranes. The No Project Alternative would not include development of any additional backlands because the existing terminal is berth-constrained and additional backlands would not improve its efficiency.

Under the No Project Alternative, the existing APL Terminal would continue to operate as an approximately 291-acre container terminal. Based on the throughput projections, terminal operations are expected to grow over time as throughput demands increase. Under Alternative 1, the existing APL Terminal would handle approximately 2.15 million TEUs by 2027, which would result in 286 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 7,273 peak daily one-way truck trips (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Under Alternative 1, cargo ships that currently berth and load/unload at the Berths 302-305 terminal would continue to do so.

The No Project Alternative would not preclude future improvements to the proposed Project site. However, any future changes in use or new improvements with the potential to significantly impact the environment would need to be analyzed in a separate environmental document.

#### **Impact VT-1: Alternative 1 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.**

Under the No Project Alternative, no terminal improvements, in-water, or over-water construction would occur, and the 291-acre terminal would continue to operate through

1 2027. When operating at full capacity in 2027 under Alternative 1, the existing APL  
2 Terminal is projected to handle a cargo throughput of approximately 2.15 million TEUs.  
3 This increase in throughput would require 286 annual ship calls and up to 572 tug boat  
4 trips.

### 5 **CEQA Impact Determination**

6 Alternative 1 would result in an increase of 39 ship calls per year (approximately three  
7 additional calls per month) when functioning at maximum capacity in 2027. These ship  
8 calls would exceed the ship calls that occurred in the CEQA baseline (247 ship calls), but  
9 would be less than the proposed Project.

10 Given the continued adherence to standard navigation and piloting safety protocols and  
11 measures, the projected increase in annual ship calls in the Pier 300 Channel at Berths  
12 302-305 would not significantly decrease the margin of safety for marine vessels in the  
13 proposed Project area. Therefore, marine vessel safety impacts associated with terminal  
14 operations under Alternative 1 would be less than significant under CEQA.

#### 15 *Mitigation Measures*

16 No mitigation is required.

#### 17 *Residual Impacts*

18 Impacts would be less than significant.

### 19 **NEPA Impact Determination**

20 The impacts of the No Project Alternative are not required to be analyzed under NEPA.  
21 NEPA requires the analysis of a No Federal Action Alternative (Alternative 2 in this  
22 document).

#### 23 *Mitigation Measures*

24 Mitigation measures are not applicable.

#### 25 *Residual Impacts*

26 An impact determination is not applicable.

### 27 **3.10.4.3.2.2 Alternative 2 – No Federal Action**

28 The No Federal Action Alternative would be the same as the NEPA baseline and would  
29 include only the activities and impacts likely to occur absent further USACE federal  
30 approval but could include improvements that require a local action. Under Alternative 2,  
31 no federal action would occur; however, minor terminal improvements in the upland area  
32 of the existing APL Terminal would be implemented. These minor upland improvements  
33 would include conversion of a portion of the dry container storage area to an additional  
34 200 reefers, associated electrical lines, and installation of utility infrastructure at locations  
35 in the existing backland areas. Beyond these minor upland improvements, the Port would  
36 not construct and develop additional backlands or wharves. No gate or additional  
37 backland improvements would occur, and no in-water features such as dredging or a new  
38 berth, wharf extension, or over-water features such as new cranes would occur under the  
39 No Federal Action Alternative.

1 Under the No Federal Action Alternative, the existing APL Terminal would continue to  
2 operate as an approximately 291-acre container terminal, and up to approximately 2.15  
3 million TEUs could be handled at the terminal by 2027. Based on the throughput  
4 projections, the No Federal Action Alternative would result in 286 annual ship calls at  
5 Berths 302-305. In addition, this alternative would result in up to 7,273 peak daily truck  
6 trips (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Cargo  
7 ships that currently berth and load/unload at the Berths 302-305 terminal would continue  
8 to do so.

9 **Impact VT-1: Alternative 2 construction- or operation-related marine**  
10 **traffic would not substantially interfere with operation of designated**  
11 **vessel traffic lanes and/or impair the level of safety for vessels**  
12 **navigating the Main Channel, Harbor, or Precautionary Area.**

13 Alternative 2 would include minor upland improvements, including installation of utility  
14 infrastructure throughout the backland areas and conversion of dry container storage to  
15 refrigerated container storage (referred to as a new reefer area). No construction of  
16 in-water or over-water features would occur under Alternative 2, and therefore, marine  
17 vessel safety impacts associated with construction of Alternative 2 improvements would  
18 not occur under CEQA.

19 **CEQA Impact Determination**

20 Similar to Alternative 1, the existing APL Terminal under Alternative 2 would increase  
21 its throughput to 2.15 million TEUs, which would require 286 annual ship calls and up to  
22 572 tug boat trips. Given the continued adherence to standard navigation and piloting  
23 safety protocols and measures, as previously described for the proposed Project, the  
24 projected increase in annual ship calls in the Pier 300 Channel at Berths 302-305 would  
25 not significantly decrease the margin of safety for marine vessels in the proposed Project  
26 area or transit of vessels operating within and to and from the proposed Project area.  
27 Therefore, marine vessel safety impacts associated with terminal operations under  
28 Alternative 2 would be less than significant under CEQA.

29 *Mitigation Measures*

30 No mitigation is required.

31 *Residual Impacts*

32 Impacts would be less than significant.

33

## NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

### *Mitigation Measures*

No mitigation is required.

### *Residual Impacts*

There would be no impacts.

### 3.10.4.3.2.3 Alternative 3 – Reduced Project: Four New Cranes

Under Alternative 3, four new cranes would be added to the existing wharf along Berths 302-305 and only minor improvements to the existing APL Terminal would be made (utility infrastructure and conversion of dry container storage to reefers). No other upland terminal improvements would be constructed. The existing terminal is berth-constrained, and adding the additional four cranes would improve the terminal's efficiency.

The total acreage of backlands under Alternative 3 would remain at approximately 291 acres, which would be less than the proposed Project. This alternative would not include the extension of the existing wharf, construction of a new berth, dredging, or the relocation and improvement of various gates and entrance lanes.

Based on the throughput projections, TEU throughput under Alternative 3 would be less than the proposed Project, with an expected throughput of approximately 2.58 million TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 8,725 peak daily truck trips (2,306,460 annual), and up to 2,544 annual one-way rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

### **Impact VT-1: Alternative 3 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.**

Under Alternative 3, no expansion of the terminal area would occur, but minor upland improvements to the existing terminal would be made and four new cranes would be added to the existing wharf. The addition of new cranes would be subject to the same navigation and construction requirements as the proposed Project. Crane delivery and installation would not interfere with existing operations at Pier 300 berths, including APL Terminal and the APM Terminal operations at Berths 401-406 (Pier 400), because the Pier 300 Channel can accommodate vessels delivering cranes. Under Alternative 3, one additional cargo vessel would use the Pier 300 Channel for crane delivery. Delivery and installation of the four new cranes are not expected to result in a significant contribution to vessel navigation or safety in the Pier 300 Channel approach corridors. Such construction activities are routinely conducted in the Port, and contractors performing in-water/over-water construction activities are subject to applicable rules and regulations stipulated in all LAHD contracts and USACE permits.

## CEQA Impact Determination

Construction activities, including the delivery of four additional cranes via ships, would be subject to standard navigation and piloting safety protocols and measures, as previously described for the proposed Project. As discussed under the proposed Project, and above, Alternative 3 is not expected to result in construction-related impacts due to the installation of four cranes, and minor upland improvements. Therefore, construction impacts on vessel traffic under Alternative 3 would not result in a significant impact under CEQA.

Alternative 3 would result in 91 additional ship calls to Berths 302-305 over to the CEQA baseline level, which is an increase that would occur gradually through 2027. Given the continued adherence to standard navigation and piloting safety protocols and measures, as previously described for the proposed Project, the projected increase in annual ship calls in the Pier 300 Channel at Berths 302-305 would not significantly decrease the margin of safety for marine vessels in the proposed Project area or transit of vessels operating within and to and from the proposed Project area. Therefore, marine vessel safety impacts associated with terminal operations under Alternative 3 would be less than significant under CEQA.

### *Mitigation Measures*

No mitigation is required.

### *Residual Impacts*

Impacts would be less than significant.

## NEPA Impact Determination

Construction activities, including the delivery of four additional cranes via ships, would be subject to standard navigation and piloting safety protocols and measures, as previously described for the proposed Project. As a consequence, the addition of cranes under Alternative 3 would not result in a significant impact to navigation or navigation safety under NEPA.

Alternative 3 would result in 52 additional ship calls to Berths 302-305 at the APL Terminal over the NEPA baseline, which is an increase that would occur gradually through 2027. Given the continued adherence to standard navigation and piloting safety protocols and measures, as previously described for the proposed Project, the projected increase in annual ship calls in the Pier 300 Channel at Berths 302-305 would not significantly decrease the margin of safety for marine vessels in the proposed Project area and transit of vessels operating within and to and from the proposed Project area. Therefore, marine vessel safety impacts associated with terminal operations under Alternative 3 would be less than significant under NEPA.

### *Mitigation Measures*

No mitigation is required.

### *Residual Impacts*

Impacts would be less than significant.



#### 3.10.4.3.2.4 Alternative 4 – Reduced Project: No New Wharf

Under Alternative 4, six cranes would be added to the existing terminal wharf at Berths 302-305, and the 41-acre fill area adjacent to the APL Terminal would be developed as container yard backlands. EMS would relinquish the 30 acres of backlands under space assignment. EMS would not add the nine acres of land behind Berth 301 or the two acres at the main gate to its permit. Because no new wharf would be constructed at Berth 306, the 41-acre backland would be operated using traditional methods and would not be expected to transition to use of automated equipment. As the existing wharf would not be extended to create Berth 306, no dredging would occur.

Under Alternative 4, the total terminal acreage would be 302 acres, which is less than the proposed Project. Based on the throughput projections, TEU throughput would be less than the proposed Project, with an expected throughput of approximately 2.78 million TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In addition, Alternative 4 would result in up to 9,401 peak daily truck trips (2,485,050 annual), and up to 2,563 annual one-way rail trip movements. Configuration of all other landside terminal components (i.e., Main Gate improvements) would be identical to the proposed Project.

#### **Impact VT-1: Alternative 4 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.**

Under Alternative 4, the existing APL Terminal would be expanded to increase its backland acreage and six new cranes would be added to the existing wharf along Berths 302-305. The addition of new cranes would be subject to the same navigation and construction requirements as under the proposed Project. Delivery and installation of the new cranes are not expected to interfere with existing operations at Pier 300 berths, including the APL Terminal and the APM Terminal operations at Berths 401-406 (Pier 400), because the Pier 300 Channel can accommodate vessels delivering cranes. Under Alternative 4, two additional cargo vessels would use the Pier 300 Channel for crane delivery. Crane delivery and installation activities are not expected to result in a significant contribution to vessel navigation or safety in the Pier 300 Channel or approach corridors. Such activities are routinely conducted in the Port, and contractors performing in-water/over-water construction activities are subject to applicable rules and regulations stipulated in all LAHD contracts and USACE permits.

#### **CEQA Impact Determination**

Construction activities, including the delivery of four additional cranes via ships, would be subject to standard navigation and piloting safety protocols and measures, as previously described for the proposed Project. As discussed under the proposed Project, and above, Alternative 4 is not expected to result in construction-related impacts due to the installation of six new cranes, backland development, and minor upland improvements. Therefore, construction impacts on vessel traffic under Alternative 4 would not result in a significant impact under CEQA.

Alternative 4 would result in an operational increase of 91 ship calls per year (approximately eight additional calls per month) through 2027, compared to existing ship calls at Berths 302-305 under the CEQA baseline. Given the continued adherence to

1 standard navigation and piloting safety protocols and measures, as previously described  
2 for the proposed Project, the projected increase in annual ship calls in the Pier 300  
3 Channel at Berths 302-305 would not significantly decrease the margin of safety for  
4 marine vessels in the proposed Project area and transit of vessels operating within and to  
5 and from the proposed Project area. Therefore, marine vessel safety impacts associated  
6 with terminal operations under Alternative 4 would be less than significant under CEQA.

7 *Mitigation Measures*

8 No mitigation is required.

9 *Residual Impacts*

10 Impacts would be less than significant.

11 **NEPA Impact Determination**

12 Construction activities, including the delivery of six additional cranes and other  
13 equipment via ships, would be subject to standard navigation and piloting safety  
14 protocols and measures, as previously described for the proposed Project. As a  
15 consequence, the addition of cranes under Alternative 4 would not result in a significant  
16 impact to navigation or navigation safety under NEPA.

17 Alternative 4 would result in an operational increase of 52 ship calls per year by 2027  
18 (approximately eight additional calls per month) at the existing Berths 302-305, when  
19 compared to existing ship calls at Berths 302-305 under the CEQA baseline.

20 Alternative 4 would result in 52 additional ship calls at the existing Berths 302-305 over  
21 the NEPA baseline, which is an increase that would occur gradually through 2027. Given  
22 the continued adherence to standard navigation and piloting safety protocols and  
23 measures, as previously described for the proposed Project, the projected increase in  
24 annual ship calls in the Pier 300 Channel at Berths 302-305 would not significantly  
25 decrease the margin of safety for marine vessels in the proposed Project area and transit  
26 of vessels operating within and to and from the proposed Project area. Therefore, marine  
27 vessel safety impacts associated with terminal operations under Alternative 4 would be  
28 less than significant under NEPA.

29 *Mitigation Measures*

30 No mitigation is required.

31 *Residual Impacts*

32 Impacts would be less than significant.

33 **3.10.4.3.2.5 Alternative 5 – Reduced Project: No Space Assignment**

34 Alternative 5 would improve the existing terminal, construct a new wharf (1,250 ft)  
35 creating Berth 306, add 12 new cranes to Berths 302-306, add 56 acres for backlands,  
36 wharfs, and gates improvements, construct electrification infrastructure in the backlands  
37 behind Berths 305-306, and relinquish the 30 acres currently on space assignment. This  
38 alternative would be the same as the proposed Project, except that EMS would relinquish  
39 the 30 acres of backlands under space assignment. As with the proposed Project, the 41-  
40 acre backlands and Berth 306 under Alternative 5 could utilize traditional container  
41 operations, electric automated operations, or a combination of the two over time.

1 Dredging of the Pier 300 Channel along the new wharf at Berth 306 (approximately  
2 20,000 cy) would occur, with the dredged material beneficially reused, and/or disposed of  
3 at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow  
4 water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2).

5 Under Alternative 5, the total gross terminal acreage would be 317 acres, which is less  
6 than the proposed Project. TEU throughput would be the same as the proposed Project,  
7 with an expected throughput of approximately 3.2 million TEUs by 2027. This would  
8 translate into 390 annual ship calls at Berths 302-306. In addition, this alternative would  
9 result in up to 11,361 peak daily truck trips (3,003,157 annual) including drayage, and up  
10 to 2,953 annual one-way rail trip movements. Configuration of all other landside  
11 terminal components would be identical to the existing terminal.

12 **Impact VT-1: Alternative 5 construction- and operation-related**  
13 **marine traffic would not substantially interfere with operation of**  
14 **designated vessel traffic lanes and/or impair the level of safety for**  
15 **vessels navigating the Main Channel, Harbor, or Precautionary Area.**

16 Alternative 5 would include primarily the same in-water and over-water features as the  
17 proposed Project, such as extending the existing wharf by approximately 1,250 lf for the  
18 creation of Berth 306, dredging of approximately 20,000 cy along Berth 306 (and the  
19 associated beneficial reuse and/or disposal of the dredged material), and delivery and  
20 installation of 12 new cranes along the existing and extended wharf. Wharf construction  
21 and crane delivery and installation would be subject to the same regulatory and  
22 construction requirements as described for the proposed Project. Accordingly, proposed  
23 in-water and over-water construction under Alternative 5 would not interfere with  
24 existing vessel operations in the Pier 300 Channel, including APL Terminal  
25 (Berths 302-305) and the APM Terminal (Berths 401-406). Under Alternative 5, the  
26 increase in the number of construction vessels in the Pier 300 Channel would average  
27 0.13 vessels per day. In-water and over-water construction activities for the new wharf at  
28 Berth 306, dredging of Berth 306, and crane delivery and installation are not expected to  
29 result in a significant contribution to vessel navigation or safety in the Pier 300 Channel  
30 or approach corridors. Such construction activities are routinely conducted in the Port,  
31 and contractors performing in-water construction activities are subject to applicable rules  
32 and regulations stipulated in all LAHD contracts and USACE permits.

33 **CEQA Impact Determination**

34 Construction activities, including the delivery of 12 additional cranes and other  
35 construction equipment and supplies via water (ships), would be subject to standard  
36 navigation and piloting safety protocols and measures, as previously described for the  
37 proposed Project. As discussed under the proposed Project, and above, Alternative 5 is  
38 not expected to result in construction-related impacts due to the construction and  
39 installation of the elements described above. Therefore, construction impacts on vessel  
40 traffic during dredging under Alternative 5 would not result in a significant impact under  
41 CEQA.

42 Alternative 5 would result in an operational increase of 143 ship calls per year  
43 (approximately 12 ship calls per month) when functioning at maximum capacity in 2027,  
44 compared to existing ship calls at Berths 302-305 under the CEQA baseline. This  
45 projected increase is the same level under the proposed Project. The addition of 143 ship  
46 calls annually would represent an increase of just over seven percent over total annual

1 ship calls of 2,010 at the Port in 2009. Although the additional 143 ship calls would  
2 increase vessel traffic in the Pier 300 Channel, Outer Harbor, and Precautionary Area,  
3 Alternative 5 is not expected to significantly increase vessel congestion in the open-ocean  
4 approach corridors. The same navigational safety protocols that would apply to the  
5 proposed Project would also apply to Alternative 5.

6 Given the continued adherence to standard navigation and piloting safety protocols and  
7 measures, as previously described for the proposed Project, the projected increase in  
8 annual ship calls in the Pier 300 Channel at Berths 302-306 would not significantly  
9 decrease the margin of safety for marine vessels in the terminal area and transit of vessels  
10 operating within and to and from the proposed Project area. Therefore, marine vessel  
11 safety impacts associated with Alternative 5 operations would be less than significant  
12 under CEQA.

### 13 *Mitigation Measures*

14 No mitigation is required.

### 15 *Residual Impacts*

16 Impacts would be less than significant.

## 17 **NEPA Impact Determination**

18 Construction and installation of the elements described above are not included in the  
19 NEPA baseline, which only includes minor upland improvements that would occur  
20 absent federal action as described in Section 2.6.2. Implementation of Alternative 5  
21 would be subject to the same navigation and construction requirements as described  
22 under the proposed Project, and above. Accordingly, proposed in-water and over-water  
23 construction under Alternative 5 would not interfere with existing vessel operations in the  
24 Pier 300 Channel, including APL Terminal (Berths 302-305) and the APM Terminal  
25 (Berths 401-406). Construction activities associated with Alternative 5 are not expected  
26 to create substantial in-water or over-water hazards or substantially increase the potential  
27 for accidents for vessels navigating in the Pier 300 Channel or elsewhere in the Harbor,  
28 compared to NEPA baseline conditions. As discussed for the proposed Project, in-water  
29 and over-water construction activities are routinely conducted in the Port, and would be  
30 required to comply with standard safety precautions mandated by the Port and USACE  
31 permit requirements. Therefore, construction impacts on vessel traffic would be less than  
32 significant under NEPA.

33 Terminal operations under Alternative 5 would result in an increase of 104 ship calls per  
34 year (approximately nine ship calls per month) when functioning at maximum capacity in  
35 2027, compared to the NEPA baseline. This is the same as the proposed Project and  
36 would represent an increase of just over five percent over total annual ship calls of  
37 2,010 at the Port in 2009. Although the additional 104 ship calls would increase vessel  
38 traffic in the Pier 300 Channel, Outer Harbor, and Precautionary Area, Alternative 5  
39 would not significantly increase vessel congestion in the open-ocean approach corridors.

40 The additional ship calls at Berths 302-306 would not result in adverse safety impacts  
41 under NEPA because of continued adherence to standard navigation and piloting safety  
42 protocols and measures, as previously described for the proposed Project. Therefore,  
43 marine vessel safety impacts associated with terminal operations under Alternative 5  
44 would be less than significant under NEPA.

1                    *Mitigation Measures*

2                    No mitigation is required.

3                    *Residual Impacts*

4                    Impacts would be less than significant.

5    **3.10.4.3.2.6 Alternative 6 – Proposed Project with Expanded On-Dock Railyard**

6                    Alternative 6 would be the same as the proposed Project; however, the existing on-dock  
7                    railyard on the terminal would be redeveloped and expanded. Under this alternative,  
8                    approximately 10 acres of backlands would be removed from container storage for the  
9                    railyard expansion. Alternative 6 would improve the existing terminal, develop the  
10                    existing 41-acre fill area as backlands, add 1,250 ft of new wharf creating Berth 306, and  
11                    dredge the Pier 300 Channel along Berth 306. Under this alternative, 12 new cranes  
12                    would be added to the wharves along Berths 302-306, for a total of 24 cranes. As with  
13                    the proposed Project, the 41-acre backlands and Berth 306 under Alternative 6 could  
14                    utilize traditional container operations, electric automated operations, or a combination of  
15                    the two over time. Dredging of the Pier 300 Channel along Berth 306 would occur  
16                    (removal of approximately 20,000 cy of material), with the dredged material beneficially  
17                    reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-  
18                    245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal  
19                    site (i.e., LA-2). Total terminal acreage (347) would be the same as the proposed Project.

20                    Based on the throughput projections, TEU throughput would be the same as the proposed  
21                    Project, with an expected throughput of approximately 3.2 million TEUs by 2027. This  
22                    would translate into 390 annual ship calls at Berths 302-306. In addition, Alternative 6  
23                    would result in up to 10,830 peak daily truck trips (2,862,760 annual), and up to  
24                    2,953 annual rail trip movements. Configuration of all other landside terminal  
25                    components would be identical to the existing terminal.

26                    **Impact VT-1: Alternative 6 construction- and operation-related**  
27                    **marine traffic would not substantially interfere with operation of**  
28                    **designated vessel traffic lanes and/or impair the level of safety for**  
29                    **vessels navigating the Main Channel, Harbor, or Precautionary Area.**

30                    Alternative 6 would include the same in-water and over-water features as the proposed  
31                    Project, including the wharf extension (1,250 lf) for the creation of Berth 306, dredging  
32                    of approximately 20,000 cy along Berth 306 (and the associated beneficial reuse, disposal  
33                    of the dredged material, or a combination of these methods), and delivery and installation  
34                    of 12 new cranes along the APL Terminal wharf. Construction activities would be  
35                    subject to the same regulatory and construction requirements as described for the  
36                    proposed Project. Accordingly, the proposed in-water and over-water construction  
37                    activities under Alternative 6 would not interfere with existing vessel operations in the  
38                    Pier 300 Channel, including APL Terminal (Berths 302-305) and the APM Terminal  
39                    (Berths 401-406). Under Alternative 6, the increase in the number of construction  
40                    vessels in the Pier 300 Channel would average 0.13 vessels per day. In-water and  
41                    over-water construction activities for the wharf extension for the new Berth 306,  
42                    dredging of Berth 306, and crane delivery/installation are not expected to result in a  
43                    significant contribution to vessel navigation or safety in the Pier 300 Channel or approach  
44                    corridors. Such construction activities are routinely conducted in the Port, and

1 contractors performing in-water construction/over-water activities are subject to  
2 applicable rules and regulations stipulated in all LAHD contracts and USACE permits.

### 3 **CEQA Impact Determination**

4 Construction activities, including the delivery of 12 additional cranes and other  
5 construction equipment and supplies via water (ships), would be subject to standard  
6 navigation and piloting safety protocols and measures, as previously described for the  
7 proposed Project. As discussed under the proposed Project and above, implementation of  
8 Alternative 6 is not expected to result in substantial impacts due to the construction and  
9 installation of the elements described above. Therefore, construction impacts on vessel  
10 traffic during dredging and associated dredged material reuse and/or disposal under  
11 Alternative 6 would not result in a significant impact under CEQA.

12 Alternative 6 would result in an operational increase of 143 ship calls per year  
13 (approximately 12 ship calls per month) when functioning at maximum capacity in 2027,  
14 compared to existing ship calls at Berths 302-305 under the CEQA baseline. This is the  
15 same as the proposed Project. The addition of 143 ship calls annually would represent an  
16 increase of just over 7 percent over total annual ship calls of 2,010 at the Port in 2009.  
17 Although the additional 143 ship calls would increase vessel traffic in the Pier 300  
18 Channel, Outer Harbor, and Precautionary Area, Alternative 6 is not expected to  
19 significantly increase vessel congestion in the open-ocean approach corridors. The same  
20 navigational safety protocols that would apply to the proposed Project would also apply  
21 to Alternative 6.

22 Given the continued adherence to standard navigation and piloting safety protocols and  
23 measures, as previously described for the proposed Project, the projected increase in  
24 annual ship calls in the Pier 300 Channel at Berths 302-306 would not significantly  
25 decrease the margin of safety for marine vessels in the terminal area and safe transit of  
26 vessels operating within and to and from the proposed Project area. Therefore, marine  
27 vessel safety impacts associated with Alternative 6 operations would be less than  
28 significant under CEQA.

#### 29 *Mitigation Measures*

30 No mitigation is required.

#### 31 *Residual Impacts*

32 Impacts would be less than significant.

### 33 **NEPA Impact Determination**

34 Improvements under Alternative 6 are not included under the NEPA baseline. The  
35 in-water/over-water construction activities are not expected to create substantial hazards  
36 or substantially increase the potential for accidents of vessels navigating in the Pier 300  
37 Channel or elsewhere in the Harbor, compared to NEPA baseline conditions. As  
38 discussed for the proposed Project, these activities are routinely conducted in the Port and  
39 must comply with standard safety precautions mandated in all Port contracts and USACE  
40 permit requirements. Therefore, construction impacts on vessel traffic would be less than  
41 significant under NEPA.

1 Terminal operations under Alternative 6 would result in an increase of 104 ship calls per  
2 year (approximately 9 ship calls per month) when functioning at maximum capacity in  
3 2027, compared to the NEPA baseline. This is the same as the proposed Project and  
4 would represent an increase of just over five percent over total annual ship calls of  
5 2,010 at the Port in 2009. Although the additional 104 ship calls would increase vessel  
6 traffic in the Pier 300 Channel, Outer Harbor, and Precautionary Area, Alternative 6  
7 would not significantly increase vessel congestion in the open-ocean approach corridors.

8 The additional ship calls would not result in adverse safety impacts under NEPA because  
9 of continued adherence to standard navigation and piloting safety protocols and  
10 measures, as previously described for the proposed Project. Therefore, terminal operations  
11 under Alternative 6 would not result in significant impacts to marine navigation or vessel  
12 safety under NEPA.

#### 13 *Mitigation Measures*

14 No mitigation is required.

#### 15 *Residual Impacts*

16 Impacts would be less than significant.

### 17 **3.10.4.4 Summary of Impact Determinations**

18 The following Table 3.10-8 summarizes the CEQA and NEPA impact determinations of  
19 the proposed Project and alternatives related to Marine Transportation, as described in the  
20 detailed discussion above. This table is meant to allow easy comparison between the  
21 potential impacts of the proposed Project and alternatives with respect to this resource.  
22 The potential impacts identified below may be based on federal, state, or City of  
23 Los Angeles significance criteria, Port criteria, and the scientific judgment of the report  
24 preparers.

25 For each impact threshold, the table describes the impact, notes the CEQA and NEPA  
26 impact determinations, describes any applicable mitigation measures, and notes the  
27 residual impacts (i.e., the impact remaining after mitigation). All impacts, whether  
28 significant or not, are included in this table.

29

**Table 3.10-8: Summary Matrix of Potential Impacts and Mitigation Measures for Marine Transportation Associated with the Proposed Project and Alternatives**

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
Proposed Project	VT-1: Proposed Project construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
Alternative 1 – No Project	VT-1: Alternative 1 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
Alternative 2 – No Federal Action	VT-1: Alternative 2 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
Alternative 3 – Reduced Project: Four New Cranes	VT-1: Alternative 3 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant



**Table 3.10-8: Summary Matrix of Potential Impacts and Mitigation Measures for Marine Transportation Associated with the Proposed Project and Alternatives**

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
Alternative 4 – Reduced Project: No New Wharf	VT-1: Alternative 4 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
Alternative 5 – Reduced Project: No Space Assignment	VT-1: Alternative 5 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
Alternative 6 – Proposed Project with Expanded On-Dock Railyard	VT-1: Alternative 6 construction- and operation-related marine traffic would not substantially interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, Harbor, or Precautionary Area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant

1    **3.10.4.5    Mitigation Monitoring**

2                   Neither the proposed Project nor any of the alternatives would result in significant  
3                   impacts on Marine Transportation. Therefore, no mitigation measures or a monitoring  
4                   program are required.

5    **3.10.5    Significant Unavoidable Impacts**

6                   No significant unavoidable impacts on Marine Transportation would occur during  
7                   construction or operation of the proposed Project or alternatives.