

# 3.12

## TRANSPORTATION AND NAVIGATION (MARINE)

### 3.12.1 Introduction

This section describes existing conditions and applicable regulations related to marine transportation within the Los Angeles Harbor, as well as potential impacts on marine transportation safety associated with the proposed Project and its alternatives.

Marine-based construction activities with potential impacts under CEQA and NEPA include dredging; transport of dredged materials; water cuts in the North Harbor, Downtown Harbor, and 7<sup>th</sup> Street Harbor to accommodate additional tugboats and other vessels; construction of the 7<sup>th</sup> Street Pier; waterside improvement and development of a new fueling station; construction of additional cruise ship berths in the Outer Harbor. Proposed Project and alternative operations with potential impacts under CEQA and NEPA include increased levels of cruise ship operations originating from both the Inner and Outer Harbors; increased vessel operations associated with development of the North, Downtown, and 7<sup>th</sup> Street Harbors; and change in vessel traffic patterns associated with relocation of a fueling station to Terminal Island.

### 3.12.2 Environmental Setting

The Los Angeles Harbor is located in San Pedro Bay (see Figure 2-1). In addition to the Port of Los Angeles, San Pedro Bay is also home to the Port of Long Beach, which is located directly to the east. The bay is protected from the open Pacific Ocean by the San Pedro, Middle, and Long Beach breakwaters. 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 harbor, and numerous aids to navigation have been developed.

Numerous vessels, including fishing boats, pleasure vessels, passenger-carrying vessels, tankers, auto carriers, container vessels, dry bulk carriers, cruise ships, and barges call or reside in the harbor. Commercial vessels follow vessel traffic lanes

1 established by the U.S. Coast Guard (USCG) when approaching and leaving the  
2 harbor, as depicted on Figure 3.12-1. Designated traffic lanes converge at the  
3 precautionary areas shown in the figure. Once inside the harbor, vessel traffic is  
4 managed as described in the following section.

### 5 **3.12.2.1 Vessel Transportation Safety**

6 Vessel traffic within and approaching the harbor is managed by two entities:

- 7 1. Vessel Traffic Service (VTS)—for the harbor approach (25 nautical miles from  
8 Point Fermin to the federal breakwater).
- 9 2. Los Angeles Pilot Service—within the Port of Los Angeles.

10 Vessel traffic levels are highly regulated by the USCG Captain of the Port (COTP)  
11 and the Marine Exchange of Southern California via the VTS. Mariners are required  
12 to report their position prior to transiting through the harbor to the COTP and the  
13 VTS; the VTS monitors the positions of all inbound/outbound vessels within the  
14 precautionary area and the approach corridor traffic lanes (Figure 3.12-1). Smaller  
15 craft, such as yachts and fishing vessels, are not required to participate in VTS. In  
16 the event of scheduling conflicts and/or vessel occupancy within the harbor reaches  
17 operating capacity, vessels are required to anchor at the anchorages outside the  
18 breakwater until mariners receive COTP authorization to initiate transit into the  
19 harbor.

20 Several measures are in place to ensure the safety of vessel navigation in the harbor  
21 area. USCG provides a weekly Local Notice to Mariners, which describes regional  
22 navigational issues and construction activities. Restricted navigation areas and routes  
23 have been designated to ensure safe vessel navigation, and are regulated by various  
24 agencies and organizations to ensure navigational safety; these are described below.

#### 25 **3.12.2.1.1 Marine Exchange of Southern California**

26 The Marine Exchange is a voluntary, non-profit organization affiliated with the Los  
27 Angeles Chamber of Commerce. This voluntary service is designated to enhance  
28 navigation safety in the precautionary area and harbor area of the Port of Los Angeles  
29 and the Port of Long Beach . The service consists of a coordinating office, specific  
30 reporting points, and very high frequency-frequency modulation (VHF-FM) radio  
31 communications used with participating vessels. Vessel traffic channels and  
32 numerous aids to navigation (i.e., operating rules and regulations) have been  
33 established in the harbor. The Marine Exchange also operates the Physical  
34 Oceanographic Real Time System (PORTS) as a service to organizations making  
35 operational decisions based on oceanographic and meteorological conditions in the  
36 vicinity of the harbor. PORTS collects and disseminates accurate real-time  
37 information on tides, visibility, winds, currents, and sea swell to maritime users to  
38 assist in the safe and efficient transit of vessels in the harbor area.

### 3.12.2.1.2 Vessel Traffic Service

VTS is operated by the Marine Exchange and the USCG to monitor traffic with shore-based radar within both the main approach and departure lanes, including the precautionary area, as well as internal movement within harbor areas. The VTS uses radar, radio, and visual inputs to collect real-time vessel traffic information and broadcast traffic advisories to assist mariners. In addition, vessels are required to report their positions and destinations to the VTS at certain times and locations, and they may also request information about traffic they could encounter in the precautionary area. Furthermore, the VTS implements the COTP's uniform procedures, including advanced notification to vessel operators, vessel traffic managers, and Port pilots identifying the location of dredges, derrick barges, and any associated operational procedures and/or restrictions (i.e., one-way traffic), to ensure safe transit of vessels operating within and to and from the proposed project area. In addition, a communication system links the following 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 between the various organizations.

### 3.12.2.1.3 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 traffic 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 any designated TSS, but failure to use one, if available, would be a major factor for determining liability in the event of a collision. TSS designations are proposed by the USCG, but must be approved by the International Maritime Organization (IMO), which is part of the United Nations. The traffic lanes utilized for TSS at the Port are shown in Figure 3.12-1.

### 3.12.2.1.4 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 within safety fairways, which are frequently located between a port and the entry into a TSS. The offshore areas shown in Figure 3.12-1 are high-traffic areas at the Port, and thus designated as safety fairways.

### 3.12.2.1.5 Precautionary and Regulated Navigation Areas

A precautionary area is designated in congested areas near the Los Angeles/Long Beach Harbor (LA/LB Harbor) entrances to set speed limits or to establish other safety precautions for ships entering or departing the harbor. A regulated navigation area (RNA) is defined as a water area within a defined boundary for which federal regulations for vessels navigating within this area have been established under CFR 33 Part 165, Subsection 165.1109. In the case of the LA/LB Harbors, RNA boundaries match the designated precautionary area. CFR 33, Part 165, Subsection 165.1152, identifies portions of the precautionary area as an RNA.

The precautionary area for LA/LB Harbors is defined by a line that extends south from Point Fermin approximately 7 nautical miles, then due east approximately 7 nautical miles, then northeast for approximately 3 nautical miles, and then back northwest (see Figure 3.12-1). Ships are required to cruise at speeds of 12 knots or less upon entering the precautionary area. A minimum vessel separation of 0.25 nautical mile is also required in the precautionary area. Vessel traffic within the precautionary area is monitored by the Marine Exchange of Southern California.

### 3.12.2.1.6 Pilotage

Use of a Port pilot for transit in and out of the San Pedro Bay area and adjacent waterways is required for all vessels of foreign registry and for U.S. vessels that do not have a federally licensed pilot on board (some U.S. flag vessels have a trained and licensed pilot onboard; those vessels are not required to use a Port pilot while navigating through the harbor). Port pilots provide pilotage to the Port of Los Angeles/Port of Long Beach and receive special training that is regulated by the Harbor Safety Committee (see discussion in Section 3.12.3.3.2). Pilots typically board the vessels at the Angel's Gate entrance and then direct the vessels to their destinations. Pilots normally leave the vessels after docking and reboard the vessels to pilot them back to sea or to other destinations within the harbor. In addition, Port pilots operate radar systems to monitor vessel traffic within the harbor area. This information is available to all vessels upon request. The pilot service also manages the use of anchorages under an agreement with the USCG. It should be noted that cruise vessels do not typically require use of a Port pilot for transit in and out of the bay.

LAHD also enforces numerous federal navigation regulations (i.e., Port tariffs) within Los Angeles Harbor. Specifically, larger commercial vessels (i.e., greater than 300 gross tons) are required to use a federally licensed pilot when navigating inside the breakwater. In most circumstances, vessels employ the services of a federally licensed local pilot from the Port pilots. In instances where a local pilot is not used, pilots must have a local federal pilot license and receive approval by the USCG COTP prior to entering or departing the harbor. The Port tariffs also require vessels to notify the affected pilot station(s) in situations when a pilot is not needed before entering, leaving, shifting, or moving between the Port of Los Angeles and the Port of Long Beach.

### 3.12.2.1.7 Tug Escort/Assist

*Tug escort* refers to the stationing of tugs in proximity of a vessel as it transits into the harbor to provide immediate assistance should a steering or propulsion failure develop. *Tug assist* refers to the positioning of tugs alongside a vessel and applying force to assist in making turns, reducing speed, providing propulsion, and docking. Commercial container vessels, as well as most of the ocean-going vessels, are required to have tug assistance within the LA/LB Harbors (Harbor Safety Committee 2004). However, some vessels have internal “tugs” (typically bow and stern thrusters) that allow the vessel to propel without engaging the main engines, and they can accomplish maneuvers with the same precision as a tug-assisted vessel. These ships are not required to have external tug assistance, with the exception of loaded tankers, which are required to have a tug escort.

### 3.12.2.1.8 Physical Oceanographic Real Time System (PORTS)

In partnership with NOAA, National Ocean Service (NOS), California Office of Spill Prevention and Response (OSPR), USGS, and some businesses operating in the Port of Los Angeles and the Port of Long Beach, the Marine Exchange operates PORTS as a service to those making operational decisions based on oceanographic and meteorological conditions in the vicinity of the Port of Los Angeles/Port of Long Beach. PORTS is a system of environmental sensors and supporting telemetry equipment that gathers and disseminates accurate real-time information on tides, visibility, winds, currents, and sea swell to maritime users to assist in the safe and efficient transit of vessels in the harbor area. Locally, PORTS is designed to provide crucial information in real time to mariners, oil spill response teams, managers of coastal resources, and others about water levels, currents, salinity, and winds in the LA/LB Harbors.

The instruments that collect the information are deployed at strategic locations within the LA/LB Harbors to provide data at critical locations and to allow “now-casting” and forecasting using a mathematical model of the harbor’s oceanographic processes. Data from the sensors are fed into a central collection point; raw data from the sensors are integrated and synthesized into information and analysis products, including graphical displays of PORTS data.

### 3.12.2.2 Navigational Hazards

Port pilots can easily identify fixed navigational hazards in the LA/LB Harbors, including breakwaters protecting the outer harbor, anchorage areas, and various wharfs and landmasses which comprise the harbor complex. These hazards are easily visible by radar and are currently illuminated. Four bridges cross the navigation channels of both harbors. All bridges have restricted vertical clearances, and two have restricted horizontal clearances as well.

Vessels that are waiting to enter the harbor and moor at a berth can anchor at the anchorages outside (Port of Los Angeles and the Port of Long Beach) and inside (Port of Long Beach only) the breakwaters. Vessels do not require tug assistance to anchor outside the breakwater. LAHD currently does not have any available anchorages inside the breakwater. For safety reasons, VTS will not assign an anchorage in the first row of sites closest to the breakwater to vessels exceeding 656 feet (200 meters) in length.

### 3.12.2.2.1 Vessel Accidents

Although marine safety is thoroughly regulated and managed, accidents do occasionally occur, including allisions (between a moving vessel and a stationary object, including another vessel), collisions (between two moving vessels), and vessel groundings. The number of vessel allisions, collisions, and groundings (ACGs) in the Port of Los Angeles and the Port of Long Beach has ranged between 2 and 12 annually in the 10-year period from 1996 through 2006, with the lowest numbers occurring in the last two years. Based on the data shown in Table 3.12-1, between 1996 and 2006 there were, on average, 6.9 ACG incidents per year. Each of these accidents was subject to USCG marine casualty investigation, and the subsequent actions taken were targeted at preventing future occurrences.

**Table 3.12-1.** Allisions, Collisions, and Groundings—Port of Los Angeles/Port of Long Beach (1996–2006)

<i>Year</i>	<i>ACG Incidents</i>			<i>Total</i>
	<i>Allisions</i>	<i>Collisions</i>	<i>Groundings</i>	
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	6	4	2	12
2005	3	1	0	4
2006	2	0	0	2

Source: Harbor Safety Committee 2004; U.S. Naval Academy 1999; Harbor Safety Committee 2007.

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.

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

5 Vessels are required by law to report failures of navigational equipment, propulsion,  
 6 steering, or other vital systems that occur during marine navigation. Marine vessel  
 7 accidents in San Pedro Bay are reported to USCG via the COTP office or the COTP  
 8 representative at VTS as soon as possible. According to the VTS, approximately 1 in  
 9 100 vessels calling at the Port of Los Angeles and the Port of Long Beach  
 10 experiences a mechanical failure during their inbound or outbound transit.

### 11 3.12.2.2.2 Close Quarters

12 To avoid vessels passing too close together, the VTS documents, reports, and takes  
 13 action on close quarters situations. *VTS close quarters situations* are described as  
 14 vessels passing an object or another vessel closer than 0.25 nautical miles or 500  
 15 yards. These incidents usually occur within the precautionary area. No reliable data  
 16 are available for close quarter incidents outside the VTS area. Normal actions taken  
 17 in response to close quarters situations include initiating informal USCG  
 18 investigation; sending letters of concern to owners and/or operators; having the  
 19 involved vessel master(s) visit VTS and review the incident; and USCG enforcement  
 20 boardings. A 9-year history of the number of “close quarters” situations is presented  
 21 in Table 3.12-2. Given a relatively steady amount of commercial transits over that  
 22 time, the table shows a decreasing trend in close quarters incidents.

23 **Table 3.12-2.** Number of VTS-recorded “Close Quarters” Incidents, 1998-2006

<i>Year</i>	<i>No. of Close Quarters</i>
1998	9
1999	5
2000	1
2001	2
2002	6
2003	4
2004	1
2005	0
2006	0
Sources: Harbor Safety Committee 2004; Harbor Safety Committee 2005; Harbor Safety Committee 2006; Harbor Safety Committee 2007	

### 3.12.2.2.3 Near Misses

The Port of Los Angeles/Port of Long Beach Harbor Safety Committee defines “near miss” as follows:

A reportable ‘Near Miss’ is an incident in which a pilot, master or other person in charge of navigating a vessel, successfully takes action of a ‘non-routine nature’ to avoid a collision with another vessel, structure, or aid to navigation, or grounding of the vessel, or damage to the environment.

The most practical and readily available near miss data can be obtained from VTS reports, which are available from the LAHD. The number of ‘near miss’ incidents is the same as the number of ‘close quarter’ incidents listed in Table 3.12-2.

### 3.12.2.3 Factors Affecting Vessel Traffic Safety

This section summarizes environmental conditions that could impact vessel safety in the Port of Los Angeles area.

#### 3.12.2.3.1 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 bay is below 0.5 mile (0.8 kilometers) for 7 to 10 days per month. Fog at the Port of Los Angeles 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 (0.8 kilometers) on 3 to 8 days per month from August through April, and is generally at its worst in December (Harbor Safety Committee 2004).

#### 3.12.2.3.2 Winds

Wind conditions vary widely, particularly in fall and winter. Winds can be strongest during the period 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, there is little warning of a Santa Ana’s 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 (Harbor Safety Committee 2004).

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

### 5 **3.12.2.3.3 Tides**

6 The mean range of tide is 3.8 feet (1.2 meters) for the Los Angeles Harbor. The  
7 diurnal range is about 5.4 feet (1.6 meters), and a range of 9 feet (2.7 meters) may  
8 occur at maximum tide.

### 9 **3.12.2.3.4 Currents**

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

23 USACE ship navigation studies indicate that within the harbor channels, current  
24 magnitudes are essentially a negligible 1/3 knot or less. Maximum current velocity  
25 in the Angel's Gate area is less than 1 knot. These current magnitudes, determined  
26 during a simulation study, indicate depth-averaged values over three layers.

27 According to Jacobsen Pilot Service, the Long Beach Queen's Gate has deeper water  
28 than Angel's Gate and has more open waterways just inside the breakwater. The  
29 pilots have never experienced a current greater than 1 knot in Queen's Gate (Harbor  
30 Safety Committee 2004).

### 31 **3.12.2.3.5 Water Depths**

32 The USACE maintains the federal channels in LA/LB Harbors. Table 3.12-3 lists  
33 water depths in the Los Angeles Harbor.

1 **Table 3.12-3.** Water Depths within the Los Angeles Harbor

<i>Channel/Basin</i>	<i>Depth – MLLW ft (m)</i>
Main Channel	-45 (-13.7)
Turning Basin	-45 (-13.7)
West Basin	-45 (-13.7)
East Basin	-45 (-13.7)
North Channel (Pier 300–400)	-53 (-16.2)
North Turning Basin	-81 (-24.7)
Approach and Entrance Channels	-81 (-24.7)
Source: Harbor Safety Committee 2004.	

2

3 **3.12.2.4 Vessel Traffic**

4 Vessel traffic calls to the Port have ranged generally between 2,300 and 3,000 per  
5 year over the past 10 years, with a total of 2,820 vessels in 2006 (Table 3.12-4). The  
6 increase in cargo volumes in recent years has been accommodated primarily by larger  
7 vessels rather than additional vessels.

8 **Table 3.12-4.** Vessel Calls at the Port of Los Angeles

<i>Year</i>	<i>Vessel Calls</i>
2006	2,820
2005	2,341
2004	2,302
2003	2,660
2002	2,526
2001	2,899
2000	3,060
1999	2,630
1998	2,569
1997	2,786
Sources: LAHD 2004; SCC 2007; MESC 2007; MELALBH 2004.	

9

### 3.12.2.5 Cruise Traffic

The World Cruise Center currently operates out of two existing terminals (Berths 91–92 Terminal and Berth 93 Terminal), with two permanent berths (91–92 and 93) and use of a temporary third berth on occasion at Berth 87. Berths 91–92 and 93 extend 1,000 feet in length. These three berths can accommodate three large vessels simultaneously.

The water depth is 37 feet, which provides the necessary draft to meet the needs of all present modern cruise ships in operation within the worldwide market. Ships generally require more than 3.2 to 6 feet of bottom clearance when berthing, depending on vessel characteristics and propulsion systems. The wharf height is 15 feet above sea level with approximately 36.5 feet of working apron area capable of supporting the necessary storing operations for large cruise vessels (Bermello Ajamil & Partners 2006).

The Main Channel is approximately 1,000 feet wide and 1.2 miles long from the harbor entrance to Berth 93. The turning basin adjacent to the cruise ship berths provides limited space (approximately 1.1 vessel lengths) for turning into the berth due to the existing container terminal operations and berthing space for container ships across the Main Channel at the Evergreen container terminal. Adjacent to Berth 93 is the Vincent Thomas Bridge with an air draft between 165 and 185 feet. Modern cruise ships generally require an air draft, or air space above a ship, of more than 200 feet. Large ships (with air drafts of more than 185 feet and lengths of more than 1,000 feet) trying to berth at 93 have difficulties maneuvering in the turning basin and swinging into the berth. Large vessels (more than 950 feet long and 200 feet tall) berthing at Berths 91 and 92 and coming into the channel keel-first must turn adjacent to the Vincent Thomas Bridge and Lane Victory prior to berthing, which is a difficult maneuver. (Bermello Ajamil & Partners 2006.)

Since 1990, the number of cruise ship calls has ranged from a high of 438 in 1993 to a low of 230 in 2004 (Chase pers. comm.). For the 2006 cruise period, the Port accommodated 258 sailings. The average number of passengers per ship was 2,235. Data from Port cruise ship passenger volumes between 1999 and 2006 suggest a 13.7 percent growth rate with no additional cruise calls. However, cruise ship size increased by approximately 25 percent over the same time period.

A 2006 statistical review of cruise traffic to the Port reveals that the peak traffic occurs between October and April. In December 2006, the Port experienced the highest passenger volumes with approximately 66,000 cruise passengers and 33 cruise calls. In 2006, there were 167 days with no ships, 148 days with one ship, 41 days with two ships, and 8 days with three ships. On average, the Port has 22 ships per month and three ships in port simultaneously for 4 days a year. In 2006, average daily passenger throughput was 1,588 passengers, while the maximum throughput was 14,540 passengers. (Bermello Ajamil & Partners 2006.)

### 3.12.3 Applicable Regulations

Many laws and regulations are in place to regulate marine structures, 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.

#### 3.12.3.1 Federal Agencies

A number of federal laws regulate marine structures and movement of 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 (CFR).

Since 1789, the federal government has authorized navigation channel improvement projects; the General Survey Act of 1824 established the USACE's role 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.

##### 3.12.3.1.1 U.S. Coast Guard

The U.S. Coast Guard (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 continual service of a licensed pilot for vessels moving between the Port of Los Angeles and the Port of Long Beach outside the breakwater.

##### 3.12.3.1.2 Department of Defense (DoD)

The Department of Defense (DoD), through the USACE, is responsible for reviewing all aspects of a project and/or spill response activities that could affect navigation. The USACE has specialized equipment and personnel for maintaining navigation channels, removing navigation obstructions, and accomplishing structural repairs. The USACE has jurisdiction under Section 10 of the Rivers and Harbors Act of 1899.

## 3.12.3.2 Other Organizations

### 3.12.3.2.1 Marine Exchange of Southern California

As described in Section 3.12.2.1, “Vessel Transportation Safety,” the Marine Exchange is a non-profit organization affiliated with the LA 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 Port of Los Angeles and the Port of Long Beach. The Marine Exchange monitors vessel traffic within the precautionary area and operates PORTS (see Section 3.12.2.1) as a service to those making operational decisions based on oceanographic and meteorological conditions in the vicinity of the Port of Los Angeles and the Port of Long Beach.

### 3.12.3.2.2 Harbor Safety Committee

The Port of Los Angeles and the Port of Long Beach have a Harbor Safety Committee (committee) that is responsible for planning the safe navigation and operation of tankers, barges, and other vessels within San Pedro Bay and approach areas. This committee has been created under the authority of Government Code Section 8670.23(a), which requires the Administrator of the Office of Oil Spill Prevention and Response to create a harbor safety committee for the LA/LB Harbors area. The committee issued the original HSP in 1991 and has issued annual updates since. Major issues facing the committee include questions regarding the need for escort tugs, required capabilities of escort tugs, and the need for new or enhanced vessel traffic information systems to monitor and advise vessel traffic.

The committee developed a regulatory scheme to institutionalize good marine practices and guide those involved in moving tanker vessels, which include the minimum standards that are applicable under favorable circumstances and conditions. The master or pilot will arrange for additional tug assistance if bad weather, unusual harbor congestion, or other circumstances so require.

### 3.12.3.2.3 Harbor Safety Plan

The Port of Los Angeles/Port of Long Beach Harbor Safety Plan (HSP) contains additional operating procedures for vessels operating in the Port vicinities. The vessel operating procedures stipulated in the HSP are considered good marine practice; some procedures are federal, state, or local regulations, while other guidelines are nonregulatory standards of care.

The HSP provides specific rules for navigation of vessels in reduced visibility conditions and does not recommend transit for vessels greater than 150,000

1 deadweight tonnage (DWT) if visibility is less than 1 nautical mile, and for all other  
2 vessels if visibility is less than 0.5 nautical mile.

3 The HSP establishes vessel speed limits. In general, speeds should not exceed  
4 12 knots within the precautionary area or 6 knots within the harbor. These speed  
5 restrictions do not preclude the master or pilot from adjusting speeds to avoid or  
6 mitigate unsafe conditions. Weather, vessel maneuvering characteristics, traffic  
7 density, construction/dredging activities, and other possible issues are taken into  
8 account.

### 9 **3.12.3.2.4 Vessel Transportation Service**

10 As described previously, VTS is a shipping service operated by USCG or  
11 public/private sector consortiums (see Section 3.12.2.1). These services monitor  
12 traffic in both approach and departure lanes, as well as internal movement within  
13 harbor areas. These services use radar, radio, and visual inputs to gather real-time  
14 vessel traffic information and broadcast traffic advisories and summaries to assist  
15 mariners. The VTS that services the Port of Los Angeles and the Port of Long Beach  
16 is located at the entrance of the LA/LB Harbors. The system is owned by the Marine  
17 Exchange and is operated jointly by the Marine Exchange and the USCG under the  
18 oversight of the OSPR and the Port of Los Angeles/Port of Long Beach Harbor  
19 Safety Committee.

20 This system provides information on vessel traffic and ship locations so that vessels  
21 can avoid allisions, collisions, and groundings in the approaches to LA/LB Harbors.  
22 The VTS assists in the safe navigation of vessels approaching the LA/LB Harbors in  
23 the precautionary area. The partnership is a unique and effective approach that has  
24 gained acceptance from the maritime community.

## 25 **3.12.4 Impacts and Mitigation Measures**

### 26 **3.12.4.1 Methodology**

27 Impacts on marine transportation were assessed by determining the net increase in  
28 vessel traffic resulting from the proposed Project or alternatives compared to the  
29 ability of the harbor to safely handle vessel traffic, as well as the proposed Project's  
30 or alternatives' potential to increase risks to vessel traffic caused by project-related  
31 activities during both construction and operation. Existing regulations regarding  
32 vessel safety are designed to avoid potential impacts and are considered standard  
33 practice.

## 3.12.4.2 Thresholds of Significance

The determination of significance for marine transportation impacts under CEQA and NEPA is based upon whether or not thresholds of significance, as described in the following sections, would be exceeded.

### 3.12.4.2.1 CEQA Criteria

Under CEQA, potential impacts are identified by comparing conditions under the proposed Project and alternatives scenarios to baseline conditions. According to the *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006), the determination of significance for marine transportation impacts will be made on a case-by-case basis. While this document does not include specific provisions regarding marine transportation, the following criterion was developed in cooperation with LAHD for previous projects.

**VT-1:** The proposed Project would have a significant impact on marine transportation if it would interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.

### 3.12.4.2.2 NEPA Criteria

Under NEPA, potential impacts are identified by comparing conditions under the project scenario to conditions under the NEPA baseline scenario. Impacts are identified if marine vessels generated by the proposed Project or alternatives would interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas. For the purposes of assessing marine impacts, the NEPA baseline is the same as the CEQA baseline, because under both scenarios, no marine-side construction would occur. (Note, project-wide, the NEPA and CEQA baseline scenarios are not equivalent, because under the NEPA baseline land-side project elements would still be constructed.)

### 3.12.4.3 Impacts and Mitigation

#### 3.12.4.3.1 Proposed Project

#### **Impact VT-1a: Construction of the proposed Project would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.**

Dredging, waterside demolition, and waterside construction associated with various elements under the proposed Project would generate barges and other boats used to transport and stage pile-driving and other construction equipment; to transport construction materials to the construction sites; and to haul dredged and demolished materials away from the sites. This would result in temporary increases in marine traffic. Construction activities that would generate marine traffic consisting of approximately 180 vessels are summarized in Table 3.12-5 (see Chapter 2, “Project Description,” for more detailed descriptions).

**Table 3.12-5.** Marine-Side Construction Associated with the Proposed Project

<i>Proposed Project Element</i>	<i>Construction Activities</i>	<i>Duration of Activities</i>
Waterfront Promenade	<p>Marine-side construction of the Promenade along Ports O’Call would utilize 25 vessels and include:</p> <ul style="list-style-type: none"> <li>• removal of approximately 36,400 square feet of existing wharf deck and approximately 53,500 square feet of existing floating docks</li> <li>• relocation of 126 existing boat slips</li> <li>• installation of 419 piles and construction of approximately 58,900 square feet of new wharf structure and approximately 14,300 square feet of floating docks</li> </ul> <p>Marine-side construction at Berth 78 would utilize vessels and include:</p> <ul style="list-style-type: none"> <li>• replacement of existing wood bulkhead with a new sheet pile bulkhead (approximately 150 linear feet)</li> <li>• for the Promenade, installation of 32 piles and construction of a new 10,500-square foot deck</li> </ul> <p>Marine-side construction at City Dock No. 1 would utilize 22 vessels and include:</p> <ul style="list-style-type: none"> <li>• installation of 224 piles and construction of approximately 66,000 square feet of new structures over the water</li> </ul> <p>Marine-side construction at the Cabrillo Beach Youth Camp and the existing salt marsh would utilize 16 vessels include:</p>	2009–2014

<i>Proposed Project Element</i>	<i>Construction Activities</i>	<i>Duration of Activities</i>
	<ul style="list-style-type: none"> <li>• approximately 1,500 linear foot extension of the Promenade constructed on 100 pilings</li> <li>• construction of a new wharf structure (approximately 31,500 square feet)</li> </ul>	
North Harbor	<p>Includes 5.0-acre water cut located at Berths 87–90, which would also displace the cruise ship berth at this location. Marine-side construction would utilize 23 vessels and include:</p> <ul style="list-style-type: none"> <li>• removal of the existing bulkhead (approximately 700 feet) and wharf structure (approximately 34,800 square feet)</li> <li>• excavation and dredging of approximately 442,000 cubic yards</li> <li>• installation of perimeter sheet pile bulkheads (approximately 1,600 feet)</li> <li>• installation of 140 piles</li> <li>• construction of floating docks (approximately 25,200 square feet)</li> <li>• installation of rock slope protection (approximately 45,000 square feet) below the high tide line</li> </ul>	2012–2014
Downtown Harbor	<p>Includes a 1.50-acre water cut. Marine-side construction would utilize 23 vessels and include:</p> <ul style="list-style-type: none"> <li>• removal of existing docks (approximately 1,600 square feet)</li> <li>• excavation and dredging of approximately 137,000 cubic yards</li> <li>• installation of perimeter sheet pile bulkheads (approximately 770 linear feet)</li> <li>• installation of 35 piles</li> <li>• construction of a new plaza wharf deck (approximately 7,800 square feet)</li> <li>• construction of new floating docks (approximately 27,100 square feet)</li> <li>• installation of rock slope protection (approximately 17,000 square feet) below the high tide line</li> </ul>	2009–2012
7 <sup>th</sup> Street Harbor	<p>Includes a 0.32-acre water cut. Marine-side construction would utilize 23 vessels and include:</p> <ul style="list-style-type: none"> <li>• removal of a portion of the existing bulkhead (approximately 140 linear feet)</li> <li>• removal of existing docks (approximately 2,400 square feet)</li> <li>• excavation and dredging of approximately 26,000 cubic yards</li> <li>• installation of perimeter sheet pile bulkheads (approximately 430 linear feet)</li> </ul>	2010–2012

<i>Proposed Project Element</i>	<i>Construction Activities</i>	<i>Duration of Activities</i>
	<ul style="list-style-type: none"> <li>• installation of 26 piles</li> <li>• construction of new floating docks (approximately 9,500 square feet)</li> <li>• installation of rock slope protection (approximately 8,000 square feet) below the high tide line</li> </ul>	
7 <sup>th</sup> Street Pier	<p>Marine-side construction would utilize 10 vessels and include:</p> <ul style="list-style-type: none"> <li>• demolition of approximately 12 marina slips and a portion of the floating dock (4,000 square feet)</li> <li>• demolition of approximately 5,400 square feet of floating dock</li> <li>• installation of 52 piles and a new pier structure (approximately 5,800 square feet)</li> </ul>	2009–2010
Outer Harbor Cruise Berths	<p>Includes upgrade of the existing Berths 45–47 for use as a cruise ship berth in the Outer Harbor to accommodate the Freedom Class or equivalent vessel (these vessels measure 1,150 feet-long requiring a 1,250 foot-long berth), and construction of a new cruise ship berth at Berths 49–50 in the Outer Harbor that would accommodate a second 1,150-foot-long vessel.</p> <p>Marine-side construction would utilize 35 vessels and include:</p> <ul style="list-style-type: none"> <li>• addition of mooring and breasting dolphins</li> <li>• demolition of approximately 1,900 square feet of existing floating docks at Berths 45–47</li> <li>• installation of approximately 288 piles and construction of an approximately 40,100-square-foot marine structure with approximately 2,200 square feet of new floating docks at Berths 45–47 deployment of permanent floating security barriers at Berths 45–47, consisting of buoys anchored to the bottom of the Outer Harbor, to maintain an approximately 75-foot secure perimeter around the proposed cruise vessel berth</li> <li>• The proposed new berth at Berths 49–50 would include installation of approximately 220 piles and construction of an approximately 51,900-square-foot marine structure at Berths 49–50</li> </ul>	2010–2012
Jankovich Company Fueling Station	<p>There is potential for marine vessels associated with the following elements:</p> <ul style="list-style-type: none"> <li>• removal of tanks and other facilities</li> <li>• site remediation</li> <li>• construction of a new fueling station at Berth 240 on Terminal Island</li> </ul>	Between 2009–2013

<i>Proposed Project Element</i>	<i>Construction Activities</i>	<i>Duration of Activities</i>
Catalina Express/Island Express	Includes construction of new floating docks at Berths 94 and 93D, and new berthing facilities at Berth 94.  These modifications of the existing wharf at Berth 94 would utilize 4 vessels and consist of installation of approximately 46 concrete piles and approximately 8,800 square feet of new floating docks (covering approximately 0.20 acre of harbor waters).	2012–2014

1

2

**CEQA Impact Determination**

3

Dredging and in-water construction activities would require use of marine-based construction equipment. Construction activities could create in-water hazards and increase the potential for accidents for vessel traffic within the harbor, Main Channel, and precautionary areas. However, these activities are routinely conducted in the harbor, and contractors performing in-water construction activities are subject to all applicable rules and regulations stipulated in all LAHD contracts. Because standard safety precautions would be utilized in piloting these vessels, the short-term presence of barges or boats would not reduce the existing level of safety for vessel navigation in the harbor. Therefore, construction impacts on vessel traffic would be less than significant under CEQA.

12

13

Mitigation Measures

14

No mitigation is required beyond adherence to navigation regulations and implementation of the safety measures stipulated in all LAHD contracts.

15

16

Residual Impacts

17

Impacts would be less than significant.

18

**NEPA Impact Determination**

19

Proposed project construction activities would potentially create in-water hazards and increase the potential for accidents for vessels navigating in the harbor, Main Channel, and precautionary areas during construction activities compared to NEPA baseline conditions. However, these activities are routinely conducted in the harbor, and compliance with standard safety precautions for in-water activities is mandated in all LAHD contracts. In addition, USACE permit requirements also include safety provisions (i.e., USCG notification, monitoring the VTS, and preparation of dredge and disposal plans). Because standard safety precautions would be utilized in piloting these vessels, the short-term presence of barges or boats would not reduce the existing level of safety for vessel navigation in the harbor. Therefore, construction impacts on vessel traffic would be less than significant under NEPA.

29

1 Mitigation Measures

2 No mitigation is required.

3 Residual Impacts

4 Impacts would be less than significant.

5 **Impact VT-1b: Operation of the proposed Project would not**  
 6 **interfere with the operation of designated vessel traffic lanes**  
 7 **and/or impair the level of safety for vessels navigating the**  
 8 **Main Channel, West Basin area, or precautionary areas.**

9 Several of the proposed project elements would provide new facilities to  
 10 accommodate vessel traffic. Relocation of some facilities associated with the  
 11 proposed Project would not be expected to generate additional vessel demand but  
 12 would change the travel patterns of vessels that utilize them. A summary of facilities  
 13 that would generate marine traffic and/or change marine vessel travel patterns is  
 14 presented in Table 3.12-6.

15 **Table 3.12-6.** Facilities That Could Generate/Change Vessel Traffic under the Proposed Project

<i>Proposed Project Element</i>	<i>Facilities</i>
Waterfront Promenade	<ul style="list-style-type: none"> <li>Relocation of 126 recreational boat slips to the Cabrillo Way Marina* would change vessel travel patterns</li> </ul>
North Harbor	<ul style="list-style-type: none"> <li>Facilities to accommodate the Crowley and Millennium Tugboats would change vessel travel patterns (<i>note</i>: tugboat operations are not expected to increase)</li> <li>Facilities to accommodate visiting historic and naval vessels would increase vessel traffic generated at this location</li> </ul>
Downtown Harbor	<ul style="list-style-type: none"> <li>Facilities to accommodate visiting vessels would increase vessel traffic generated at this location</li> </ul>
7 <sup>th</sup> Street Harbor	<ul style="list-style-type: none"> <li>Facilities to accommodate visiting vessels near the Los Angeles Maritime Museum would increase vessel traffic generated at this location</li> </ul>
7 <sup>th</sup> Street Pier	<ul style="list-style-type: none"> <li>Facilities to accommodate short-term berthing of visiting vessels adjacent to the Los Angeles Maritime Museum would increase vessel traffic generated at this location</li> </ul>
Outer Harbor Cruise Berths	<ul style="list-style-type: none"> <li>Facilities upgrade and construction to accommodate larger vessels would increase vessel traffic generated at this location</li> </ul>
Jankovich Company Fueling Station	<ul style="list-style-type: none"> <li>Moving fueling station from this site to Berth 240 would change vessel travel patterns</li> </ul>
Catalina Express/Island	<ul style="list-style-type: none"> <li>Relocation of facilities to Berth 94 would change vessel travel</li> </ul>

<i>Proposed Project Element</i>	<i>Facilities</i>
Express	patterns
* The relocation of boat slips to the Cabrillo Way Marina Project was included in an EIR that was approved by the LAHD in November 2003, and is independent of the proposed Project.	

1

2

3

4

5

6

7

8

9

10

Cruise traffic to the Port is seasonal and peaks between October and April, with a marked decrease in the summer months. Peak monthly cruise ship calls are projected to increase from 36 per month in 2006, to 38 by 2015, and 40 by 2037. Table 3.12-7 shows existing and projected future cruise sailings. Most ships arrive in the Port around 6:00 a.m. and depart by 6:00 p.m. and ships are anticipated to stay in the Port for approximately 12 hours per call. Weekends will remain the key days for the operations of cruise ships, and it is anticipated that by 2020 four ships per day will call on the Port on Mondays, Fridays, Saturdays, and Sundays; however only two of these ships would be berthed at the Outer Harbor.

11 **Table 3.12-7.** Existing and Projected Cruise Vessel Calls – Proposed Project

	<i>CEQA Baseline</i>	<i>NEPA Baseline</i>		<i>Proposed Project</i>		<i>Increase under Proposed Project</i>			
						<i>Compared to CEQA Baseline</i>		<i>Compared to NEPA Baseline</i>	
						<i>2015</i>	<i>2037</i>	<i>2015</i>	<i>2037</i>
Annual Vessel Calls	258	275	275	275	287	17	29	0	12
Peak Monthly Calls	36	38	38	38	40	2	4	0	2

12

13

14

15

16

17

18

19

20

21

22

23

The operation of the proposed project would accommodate the simultaneous berthing of two 1,150-foot-long cruise vessels at Berths 45–47 and Berths 49–50, while satisfying the security requirements essential to operate a cruise terminal (refer to Section 3.7 Hazards and Hazardous Materials for discussion of applicable security regulations). When a cruise ship is in transit, a 100 yard (300 foot) security zone would be required around the cruise ship. The 100 yard security zone would prevent recreational vessels from coming within 100 yards of the cruise ships while in transit in the Main Channel or while it is docking at Berths 45–47. If a recreational vessel was within the security zone while a cruise ship was in transit, it would have to wait, until the cruise ship passes. This security zone would be enforced by the USCG (Gooding pers. comm. 2008).

24

25

26

27

The Outer Harbor Cruise Terminal Facility Security Assessment/Facility Security Plan (FSA/FSP) would be approved prior to the operation of the new Outer Harbor Cruise Terminal by the USCG. The USCG is committed to working with the Port regarding Outer Harbor security and maintaining access to the marinas located to the

1 northwest of the proposed Outer Harbor Cruise berths. Pending approval by the  
2 USCG, the FSA/FSP for the Outer Harbor Cruise Terminal would incorporate a  
3 secured and movable floating security barrier. See Section 3.7 Hazards and  
4 Hazardous Materials, and Section 3.10, Recreation for a detailed description of the  
5 secured and movable floating security barrier. The secured and movable floating  
6 barrier would prevent any recreational vessels using the West Channel area,  
7 including the Cabrillo Marina(s), from being within 25 yards, (75 feet) of the docked  
8 cruise ship's bow or port sides. The secured and moving floating barrier would  
9 maintain the waterside security of the docked cruise ship, while allowing recreational  
10 boaters to access the marinas when the cruise ship is at berth (Gooding pers. comm.  
11 2008). The 25-yard secure and movable floating barrier would be enforced by the  
12 USCG. See Figure 3.7-5 in Section 3.7, Hazards and Hazardous Materials, which  
13 depicts the 100 yard (300 foot) security zone required while a cruise ship is in transit  
14 without the secure and floating barrier, and the 25 yard (75 foot) security zone with  
15 the secure and movable floating barriers.

16 Access to the various marinas in the area, such as the Cabrillo Marina and the  
17 Cabrillo Way Marina, is located just to the west of Berths 45–47. The access point is  
18 approximately 180 yards (approximately 540 feet) wide. Power boating and sailing  
19 occur year-round; however, the peak season for pleasure boating is generally during  
20 the summer, especially the summer weekends, with peak weekly times occurring at 6  
21 p.m. on Saturday and Sunday. Off peak season for recreational vessels is from  
22 October to May with peak times occurring at 6 p.m. on Saturdays and Sundays  
23 (Welsh pers. comm. 2008). During the peak season (i.e. summer) approximately 35  
24 to 40 recreational vessels use the harbor area at peak times, while during the off peak  
25 season (i.e. October to May) approximately three to four recreational vessels use the  
26 harbor area during peak times (Welsh pers. comm. 2008). See Section 3.10  
27 Recreation for a more detailed description of recreational vessels and pleasure  
28 boating in the proposed Project area.

29 When a cruise ship is in transit and berthing at Berths 45–47, recreational vessels  
30 would be required to comply with the 100 yard (300 foot) security zone. This would  
31 leave approximately 80 yards (approximately 240 feet) remaining for recreational  
32 vessels to use traveling in and out of the marinas. However, pending approval by  
33 USCG, the FSA/FSP would incorporate the secured and moveable floating barriers  
34 described above. Therefore, when a cruise ship is berthed (i.e. not in transit) the  
35 secured and movable floating barrier would be in place at Berths 45–47. This  
36 security barrier would replace the 100 yard security zone and would allow for a 25  
37 yard security zone and there would be approximately 155 yards (465 feet) of  
38 available space for recreational vessels to access the existing marinas.

### 39 **CEQA Impact Determination**

40 Proposed project operations would result in an increase of vessel calls compared to  
41 2006 conditions. Adherence to HSP speed-limit regulations, traffic separation  
42 schemes, limited visibility guidelines, VTS monitoring requirements, and Port tariffs  
43 requiring vessels of foreign registry and U.S. vessels that do not have a federally  
44 licensed pilot on board to use a Port pilot for transit in and out of the harbor and  
45 adjacent waterways would continue to be used as standard practice. Therefore, the

1 expected increase in vessels traffic and changes in vessel traffic patterns would not  
2 significantly decrease the margin of safety for marine vessels in the harbor, Main  
3 Channel, or precautionary areas.

4 The new berths proposed in the Outer Harbor, 45–47 and 49–50, would  
5 accommodate larger cruise ships without requiring the maneuvering and air draft  
6 restrictions that are present in the Main Channel, reducing the potential for conflict  
7 with other large vessels. The operation of the proposed project would reduce the  
8 width of the access point to the existing recreational marinas from approximately 180  
9 yards (540 feet) to approximately 80 yards (240 feet) when a cruise ship is docking or  
10 departing at Berths 45–47. This reduction is not considered substantial since  
11 recreational vessels would be able to safely maneuver in and out of the marinas while  
12 a cruise ship is docking or departing (Christiansen pers. comm. 2008). It would take  
13 a cruise ship approximately one hour to dock at the berths or depart from the berths;  
14 therefore, the reduced access to the marinas would only occur during the time that the  
15 cruise ship is actually moving into the berth or away from the berth (Cummings pers.  
16 comm. 2008). During this one hour timeframe recreational vessels would be able to  
17 continue under way, while safely remaining outside of the 100 yard security zone, as  
18 the cruise ship docks or departs. The reduced access point to the existing recreational  
19 marinas would only increase on average by two ships and by four ships between the  
20 months of October and April (as described above). Furthermore, this increase would  
21 only occur within a specific timeframe (i.e., 6 a.m. and 6 p.m.) and it would occur  
22 more during the off season of the recreational vessels where fewer recreational  
23 vessels use the harbor area (i.e. October to May). The limited amount of time and  
24 only the slight increase in frequency of the reduced access point to the existing  
25 marinas when a cruise ship is docking, and the fact that recreational vessels would be  
26 able to maneuver safely when the access point is reduced, results in impacts that are  
27 less than significant.

28 Once a cruise ship is docked (i.e. no longer in transit), and the secured and movable  
29 floating barriers are in place, recreational vessels would have approximately 155  
30 yards (465 feet) to access the existing marinas. Recreational vessels would be able to  
31 safely maneuver in and out of the marinas when a cruise ship is docked (Christiansen  
32 pers. comm. 2008).

33 Therefore, operational impacts on vessel traffic would be less than significant under  
34 CEQA.

#### 35 Mitigation Measures

36 No mitigation is required.

#### 37 Residual Impacts

38 Impacts would be less than significant.

## 1 **NEPA Impact Determination**

2 Proposed project operations would result in an increase of vessel calls, compared to  
3 the NEPA baseline. Adherence to HSP speed-limit regulations, traffic separation  
4 schemes, limited visibility guidelines, VTS monitoring requirements, and Port tariffs  
5 requiring vessels of foreign registry and U.S. vessels that do not have a federally  
6 licensed pilot on board to use a Port pilot for transit in and out of the harbor and  
7 adjacent waterways would continued to be used as standard practice. Therefore, the  
8 expected increase in vessels traffic and changes in vessel traffic patterns would not  
9 significantly decrease the margin of safety for marine vessels in the harbor, Main  
10 Channel, or precautionary areas.

11 The new berths proposed in the Outer Harbor, 45–47 and 49–50, would  
12 accommodate larger cruise ships without the maneuvering and air draft restrictions  
13 that are present in the Main Channel, reducing the potential for conflict with other  
14 large vessels. As described in the CEQA analysis above, although the operation of  
15 proposed Project would increase the number of cruise ships using the Outer Harbor  
16 Cruise berths this would not restrict or reduce the ability of recreational vessels to  
17 safely utilize the marinas, the Outer Harbor, or the ocean.

18 Therefore, operational impacts on vessel traffic would be less than significant under  
19 NEPA.

### 20 Mitigation Measures

21 No mitigation is required.

### 22 Residual Impacts

23 Impacts would be less than significant.

## 24 **3.12.4.3.2 Alternative 1—Alternative Development Scenario 1**

### 25 **Impact VT-1a: Construction of Alternative 1 would not** 26 **interfere with operation of designated vessel traffic lanes** 27 **and/or impair the level of safety for vessels navigating the** 28 **Main Channel, West Basin area, or precautionary areas.**

29 The types of waterside construction activities that would result in temporary  
30 increases in marine traffic are described under the proposed Project. Construction  
31 activities that would generate marine traffic consisting of vessels under Alternative 1  
32 are the same as those described under the proposed Project, with the exception of  
33 reducing construction impacts associated with the Outer Harbor cruise berth and  
34 wharf extension at Berths 49–50.

1                   **CEQA Impact Determination**

2                   Impacts for Alternative 1 would be slightly less, but with the same overall  
3                   determination as the proposed Project. Therefore, construction impacts on vessel  
4                   traffic would be less than significant under CEQA.

5                   Mitigation Measures

6                   No mitigation is required.

7                   Residual Impacts

8                   Impacts would be less than significant.

9                   **NEPA Impact Determination**

10                  Impacts for Alternative 1 are expected to be slightly less than the proposed Project,  
11                  but the overall determination is the same. Therefore, construction impacts on vessel  
12                  traffic would be less than significant under NEPA.

13                  Mitigation Measures

14                  No mitigation is required.

15                  Residual Impacts

16                  Impacts would be less than significant.

17                  **Impact VT-1b: Operation of Alternative 1 would not interfere**  
18                  **with the operation of designated vessel traffic lanes and/or**  
19                  **impair the level of safety for vessels navigating the Main**  
20                  **Channel, West Basin area, or precautionary areas.**

21                  Facilities that would generate marine traffic and/or change marine vessel travel  
22                  patterns are the same as the facilities under the proposed Project, summarized in  
23                  Table 3.12-6.

24                  Table 3.12-8 shows existing and projected future cruise sailings.

1 **Table 3.12-8. Existing and Projected Cruise Vessel Calls – Alternative 1**

	<i>CEQA Baseline</i>	<i>NEPA Baseline</i>		<i>Alternative 1</i>		<i>Increase Under Alternative 1</i>			
						<i>Compared to CEQA Baseline</i>		<i>Compared to NEPA Baseline</i>	
						<i>2015</i>	<i>2037</i>	<i>2015</i>	<i>2037</i>
Annual Vessel Calls	258	275	275	275	275	17	17	0	0
Peak Monthly Calls	36	38	38	38	38	2	2	0	0

2  
3 Impacts for Alternative 1 would be the same as the proposed Project. Therefore,  
4 operation impacts on vessel traffic would be less than significant under CEQA.

5 **Mitigation Measures**

6 No mitigation is required.

7 **Residual Impacts**

8 Impacts would be less than significant.

9 **NEPA Impact Determination**

10 Although no net increase in cruise ship vessel calls is expected under Alternative 1,  
11 compared to the NEPA baseline, Alternative 1 would introduce new vessel traffic to  
12 the Outer Harbor. Under Alternative 1 a single Outer Harbor Cruise terminal and  
13 berth would operate at Berths 45–47. Although this would be one less terminal and  
14 berth than the proposed Project, the NEPA impacts of Alternative 1 would be similar  
15 to that of the proposed Project as described in VT-1b above. Adherence to HSP  
16 speed-limit regulations, traffic separation schemes, limited visibility guidelines, VTS  
17 monitoring requirements, and Port tariffs requiring vessels of foreign registry and  
18 U.S. vessels that do not have a federally licensed pilot on board to use a Port pilot for  
19 transit in and out of the harbor and adjacent waterways would continued to be used as  
20 standard practice. Furthermore, as under the proposed Project, Alternative 1 would  
21 not restrict or reduce the ability of recreational vessels to safely utilize the marinas,  
22 the Outer Harbor, or the ocean. Therefore, impacts would be less than significant  
23 under NEPA.

24 **Mitigation Measures**

25 No mitigation is required.

1                    Residual Impacts

2                    No impacts would occur.

3    **3.12.4.3.3    Alternative 2—Alternative Development Scenario 2**

4                    **Impact VT-1a: Construction of Alternative 2 would not**  
5                    **interfere with operation of designated vessel traffic lanes**  
6                    **and/or impair the level of safety for vessels navigating the**  
7                    **Main Channel, West Basin area, or precautionary areas.**

8                    The types of waterside construction activities that would result in temporary  
9                    increases in marine traffic are described under the proposed Project. Construction  
10                    activities that would generate marine traffic are the same as activities under the  
11                    proposed Project, summarized in Table 3.12-5.

12                    **CEQA Impact Determination**

13                    Impacts for Alternative 2 would be the same as the determination for the proposed  
14                    Project. Therefore, construction impacts on vessel traffic would be less than  
15                    significant under CEQA.

16                    Mitigation Measures

17                    No mitigation is required.

18                    Residual Impacts

19                    Impacts would be less than significant.

20                    **NEPA Impact Determination**

21                    Impacts for Alternative 2 would be the same as the determination for the proposed  
22                    Project. Therefore, construction impacts on vessel traffic would be less than  
23                    significant under NEPA.

24                    Mitigation Measures

25                    No mitigation is required.

26                    Residual Impacts

27                    Impacts would be less than significant.

1                   **Impact VT-1b: Operation of Alternative 2 would not interfere**  
2                   **with the operation of designated vessel traffic lanes and/or**  
3                   **impair the level of safety for vessels navigating the Main**  
4                   **Channel, West Basin area, or precautionary areas.**

5                   Facilities that would generate marine traffic and/or change marine vessel travel  
6                   patterns are the same as the facilities under the proposed Project, summarized in  
7                   Table 3.12-6.

8                   Cruise ship calls under this alternative are expected to be the same as projections  
9                   under the proposed Project, shown in Table 3.12.7.

10                  **CEQA Impact Determination**

11                  Impacts for Alternative 2 would be the same as the determination for the proposed  
12                  Project. Therefore, operational impacts on all vessel traffic would be less than  
13                  significant under CEQA.

14                  Mitigation Measures

15                  No mitigation is required.

16                  Residual Impacts

17                  Impacts would be less than significant.

18                  **NEPA Impact Determination**

19                  Impacts for Alternative 2 would be the same as the determination for the proposed  
20                  Project. Therefore, operational impacts on all vessel traffic would be less than  
21                  significant under NEPA.

22                  Mitigation Measures

23                  No mitigation is required.

24                  Residual Impacts

25                  Impacts would be less than significant.

### 3.12.4.3.4 Alternative 3—Alternative Development Scenario 3 (Reduced Project)

#### **Impact VT-1a: Construction of Alternative 3 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.**

The types of waterside construction activities that would result in temporary increases in marine traffic are described under the proposed Project. Construction activities that would generate marine traffic are the same as activities under Alternative 1.

#### **CEQA Impact Determination**

Impacts for Alternative 3 would be the same as the determination for Alternative 1. Therefore, construction impacts on vessel traffic would be less than significant under CEQA.

#### Mitigation Measures

No mitigation is required.

#### Residual Impacts

Impacts would be less than significant.

#### **NEPA Impact Determination**

Impacts for Alternative 3 would be the same as the determination for Alternative 1. Therefore, construction impacts on vessel traffic would be less than significant under NEPA.

#### Mitigation Measures

No mitigation is required.

#### Residual Impacts

Impacts would be less than significant.

1                   **Impact VT-1b: Operation of Alternative 3 would not interfere**  
2                   **with the operation of designated vessel traffic lanes and/or**  
3                   **impair the level of safety for vessels navigating the Main**  
4                   **Channel, West Basin area, or precautionary areas.**

5                   Facilities that would generate marine traffic and/or change marine vessel travel  
6                   patterns are the same as the facilities under the proposed Project, summarized in  
7                   Table 3.12-6. Cruise ship calls under this alternative are expected to be the same as  
8                   projections under Alternative 1, shown in Table 3.12-8.

9                   **CEQA Impact Determination**

10                  Impacts for Alternative 3 would be the same as the determination for Alternative 1.  
11                  Therefore, operational impacts on all vessel traffic 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                  Impacts for Alternative 3 would be the same as the determination for Alternative 1.  
19                  Therefore, operational impacts would be less than significant on all vessel traffic  
20                  under NEPA.

21                  Mitigation Measures

22                  No mitigation is required.

23                  Residual Impacts

24                  No impacts would occur.

### 3.12.4.3.5 Alternative 4—Alternative Development Scenario 4

#### **Impact VT-1a: Construction of Alternative 4 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.**

The types of waterside construction activities that would result in temporary increases in marine traffic are described under the proposed Project, but would not involve construction of the North Harbor or either of the Outer Harbor cruise berths. Construction activities that would generate marine traffic consist of approximately 123 vessels under Alternative 4.

#### **CEQA Impact Determination**

Impacts for Alternative 4 would be less than the proposed Project, but the overall determination would be the same. Therefore, construction impacts on vessel traffic would be less than significant under CEQA.

#### Mitigation Measures

No mitigation is required.

#### Residual Impacts

Impacts would be less than significant.

#### **NEPA Impact Determination**

Impacts for Alternative 4 would be less than the proposed Project, but the overall determination would be the same. Therefore, construction impacts on vessel traffic would be less than significant under NEPA.

#### Mitigation Measures

No mitigation is required.

#### Residual Impacts

Impacts would be less than significant.

**Impact VT-1b: Operation of Alternative 4 would not interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.**

Facilities that would generate marine traffic and/or change marine vessel travel patterns are summarized in Table 3.12-9.

**Table 3.12-9.** Facilities that Could Generate/Change Vessel Traffic under Alternative 4

<i>Proposed Project Element</i>	<i>Facilities</i>
Waterfront Promenade	Same as proposed Project
North Harbor	No additional activities generated at this location
Downtown Harbor	Same as proposed Project
7 <sup>th</sup> Street Harbor	Same as proposed Project
7 <sup>th</sup> Street Pier	Same as proposed Project
Outer Harbor Cruise Berths	No vessel traffic generated at this location
Westway	<ul style="list-style-type: none"> <li>• Demolition would eliminate vessel traffic associated with carrying materials to the facility</li> <li>• Facilities to accommodate the Crowley and Millennium Tugboats would change vessel travel patterns (<i>note: tugboat operations are not expected to increase</i>)</li> </ul>
Jankovich Fueling Station	Same as proposed Project
Catalina Express/Island Express	Same as proposed Project

Cruise ship calls under this alternative are expected to be the same as projections under Alternative 1, shown in Table 3.12-8.

**CEQA Impact Determination**

Impacts for Alternative 4 would be slightly less than Alternative 1, since under Alternative 4 the Outer Harbor Cruise Terminals and berths would not operate, and therefore, there would be no impacts from cruise ships berthing activity to recreational vessel access to the Cabrillo Marina. However, Alternative 4 has the same impact determination as Alternative 1, because Alternative 4 would result in the same increase in the number of cruise ship calls annually and during the peak months within the Port as Alternative 1.

1 Therefore, under Alternative 4 operational impacts on vessel traffic would be less  
2 than significant under CEQA.

3 Mitigation Measures

4 No mitigation is required.

5 Residual Impacts

6 No impacts would occur.

7 **NEPA Impact Determination**

8 No net increase in cruise ship vessel calls is expected under Alternative 4, compared  
9 to the NEPA baseline. Furthermore, Alternative 4 would not introduce vessel traffic  
10 to the Outer Harbor since Alternative 4 does not include the operation of any Outer  
11 Harbor Cruise terminal(s) or berth(s). Therefore, there would be no operational  
12 impacts under NEPA.

13 Mitigation Measures

14 No mitigation is required.

15 Residual Impacts

16 No impacts would occur.

17 **3.12.4.3.6 Alternative 5—No-Federal-Action Alternative**

18 **Impact VT-1a: Construction of Alternative 5 would not**  
19 **interfere with operation of designated vessel traffic lanes**  
20 **and/or impair the level of safety for vessels navigating the**  
21 **Main Channel, West Basin area, or precautionary areas.**

22 No marine facilities would be constructed under this alternative; therefore, there  
23 would be no operational impacts.

24 **CEQA Impact Determination**

25 Because no waterside construction activities would occur under Alternative 5, there  
26 would be no impacts under CEQA.

27 Mitigation Measures

28 No mitigation is required.

1                    Residual Impacts

2                    No impacts would occur.

3                    **NEPA Impact Determination**

4                    Because the No-Federal-Action Alternative is identical to the NEPA baseline, this  
5                    alternative would have no impact under NEPA.

6                    Mitigation Measures

7                    No mitigation is required.

8                    Residual Impacts

9                    No impacts would occur.

10                   **Impact VT-1b: Operation of Alternative 5 would not interfere**  
11                   **with the operation of designated vessel traffic lanes and/or**  
12                   **impair the level of safety for vessels navigating the Main**  
13                   **Channel, West Basin area, or precautionary areas.**

14                   Cruise ship calls under this alternative are the same as those shown in Table 3.12-7  
15                   for the proposed Project.

16                   **CEQA Impact Determination**

17                   Table 3.12-7 shows that the number of cruise ship calls under the NEPA baseline  
18                   (Alternative 5) would be greater than calls under the CEQA baseline condition.  
19                   Impacts for Alternative 5 would be slightly less than the proposed Project because  
20                   this alternative would have fewer annual and monthly cruise calls than the proposed  
21                   Project. As discussed for the proposed Project, impacts were determined to be less  
22                   than significant; therefore, operational impacts on vessel traffic for Alternative 5  
23                   would be less than significant under CEQA.

24                   Mitigation Measures

25                   No mitigation is required.

26                   Residual Impacts

27                   Impacts would be less than significant.

28                   **NEPA Impact Determination**

29                   Because the No-Federal-Action Alternative is identical to the NEPA baseline, this  
30                   alternative would have no impact under NEPA.

1                    Mitigation Measures

2                    No mitigation is required.

3                    Residual Impacts

4                    No impacts would occur.

5    **3.12.4.3.7    Alternative 6—No-Project Alternative**

6                    **Impact VT-1a: Construction of Alternative 6 would not**  
7                    **interfere with operation of designated vessel traffic lanes**  
8                    **and/or impair the level of safety for vessels navigating the**  
9                    **Main Channel, West Basin area, or precautionary areas.**

10                    No marine facilities would be constructed under this alternative; therefore, no  
11                    potential construction or operational impacts are identified.

12                    **CEQA Impact Determination**

13                    Because no waterside construction activities would occur under Alternative 6, no  
14                    impact is identified under CEQA.

15                    Mitigation Measures

16                    No mitigation is required.

17                    Residual Impacts

18                    No impacts would occur.

19                    **NEPA Impact Determination**

20                    This alternative does not involve improvements within the limits of federal  
21                    jurisdiction. Therefore, impacts from this alternative are not applicable under NEPA.

22                    Mitigation Measures

23                    Not applicable.

24                    Residual Impacts

25                    This alternative does not involve improvements within the limits of federal  
26                    jurisdiction. Therefore, impacts from this alternative are not applicable under NEPA.

1                   **Impact VT-1b: Operation of Alternative 6 would not interfere**  
2                   **with the operation of designated vessel traffic lanes and/or**  
3                   **impair the level of safety for vessels navigating the Main**  
4                   **Channel, West Basin area, or precautionary areas.**

5                   **CEQA Impact Determination**

6                   Table 3.12-7 shows that the number of cruise ship calls under Alternative 6 would be  
7                   greater than calls under the CEQA baseline condition, and would result in the same  
8                   number of cruise calls as Alternatives 1, 3, 4, and 5. This alternative represents no  
9                   action on behalf of the LAHD. Therefore, this alternative is not subject to  
10                  significance determinations under CEQA as there are no discretionary approvals  
11                  triggering CEQA compliance. Thus, no impacts would occur under CEQA.

12                  Mitigation Measures

13                  No mitigation is required.

14                  Residual Impacts

15                  No impact would occur.

16                  **NEPA Impact Determination**

17                  This alternative does not involve improvements within the limits of federal  
18                  jurisdiction. Therefore, impacts from this alternative are not applicable under NEPA.

19                  Mitigation Measures

20                  Not applicable.

21                  Residual Impacts

22                  Not applicable.

23                  **3.12.4.3.8 Summary of Impact Determinations**

24                  Table 3.12-10 summarizes the CEQA and NEPA impact determinations of the  
25                  proposed Project and its alternatives related to marine transportation and navigation,  
26                  as described in the detailed discussion in Sections 3.12.4.3.1 through 3.12.4.3.7. This  
27                  table is meant to allow easy comparison between the potential impacts of the  
28                  proposed Project and its alternatives with respect to this resource. Identified potential  
29                  impacts may be based on federal, state, and City of Los Angeles significance criteria,  
30                  LAHD criteria, and the scientific judgment of the report preparers.

31                  For each type of potential impact, the table describes the impact, notes the CEQA and  
32                  NEPA impact determinations, describes any applicable mitigation measures, and

1 notes the residual impacts (i.e., the impact remaining after mitigation). All impacts,  
2 whether significant or not, are included in this table.

1 **Table 3.12-10.** Summary Matrix of Potential Impacts and Mitigation Measures for Marine Transportation and Navigation Associated with the  
 2 Proposed Project and Alternatives

<i>Alternative</i>	<i>Environmental Impacts*</i>	<i>Impact Determination</i>	<i>Mitigation Measures</i>	<i>Impacts after Mitigation</i>
<b>3.12 Transportation and Navigation (Marine)</b>				
Proposed Project	<b>VT-1a:</b> Construction of the proposed Project would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: Less than significant
	<b>VT-1b:</b> Operation of the proposed Project would not interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: Less than significant
Alternative 1	<b>VT-1a:</b> Construction of Alternative 1 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: Less than significant
	<b>VT-1b:</b> Operation of Alternative 1 would not	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant

<i>Alternative</i>	<i>Environmental Impacts*</i>	<i>Impact Determination</i>	<i>Mitigation Measures</i>	<i>Impacts after Mitigation</i>
	interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	NEPA: Less than significant	No mitigation is required	NEPA: No impacts would occur
Alternative 2	<b>VT-1a:</b> Construction of Alternative 2 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: Less than significant
	<b>VT-1b:</b> Operation of Alternative 2 would not interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: Less than significant
Alternative 3	<b>VT-1a:</b> Construction of Alternative 3 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: Less than significant

<i>Alternative</i>	<i>Environmental Impacts*</i>	<i>Impact Determination</i>	<i>Mitigation Measures</i>	<i>Impacts after Mitigation</i>
	<b>VT-1b:</b> Operation of Alternative 3 would not interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: No impacts would occur
Alternative 4	<b>VT-1a:</b> Construction of Alternative 4 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: Less than significant	No mitigation is required	NEPA: Less than significant
	<b>VT-1b:</b> Operation of Alternative 4 would not interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: No impacts would occur	No mitigation is required	CEQA: No impacts would occur
		NEPA: No impacts would occur	No mitigation is required	NEPA: No impacts would occur

<i>Alternative</i>	<i>Environmental Impacts*</i>	<i>Impact Determination</i>	<i>Mitigation Measures</i>	<i>Impacts after Mitigation</i>
Alternative 5	<b>VT-1a:</b> Construction of Alternative 5 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: No impacts would occur	No mitigation is required	CEQA: No impacts would occur
		NEPA: No impacts would occur	No mitigation is required	NEPA: No impacts would occur
	<b>VT-1b:</b> Operation of Alternative 5 would not interfere with the operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: Less than significant	No mitigation is required	CEQA: Less than significant
		NEPA: No impacts would occur	No mitigation is required	NEPA: No impacts would occur
Alternative 6	<b>VT-1a:</b> Construction of Alternative 6 would not interfere with operation of designated vessel traffic lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	CEQA: No impacts would occur	No mitigation is required	CEQA: No impacts would occur
		NEPA: Not applicable	No mitigation is required	NEPA: Not applicable
	<b>VT-1b:</b> Operation of Alternative 6 would not interfere with the operation of designated vessel traffic	CEQA: No impacts would occur	No mitigation is required	CEQA: No impacts would occur

<i>Alternative</i>	<i>Environmental Impacts*</i>	<i>Impact Determination</i>	<i>Mitigation Measures</i>	<i>Impacts after Mitigation</i>
	lanes and/or impair the level of safety for vessels navigating the Main Channel, West Basin area, or precautionary areas.	NEPA: Not applicable	No mitigation is required	NEPA: Not applicable

*Notes:*

\* Impact descriptions for each of the alternatives are the same as for the proposed Project, unless otherwise noted.

† The term *not applicable* is used in cases where a particular impact is not identified as a CEQA- or NEPA-related issue in the threshold of significance criteria, or where there is no federal action requiring a NEPA determination of significance.

1    **3.12.4.4    Mitigation Monitoring**

2                    No mitigation is required for the proposed Project or any of the alternatives.

3    **3.1.5            Significant Unavoidable Impacts**

4                    No significant unavoidable impacts on marine transportation and navigation would  
5                    occur during construction or operation of the proposed Project or any of the  
6                    alternatives.

7