

Section 3.14

Marine Transportation**SECTION SUMMARY**

This section describes existing marine transportation within the Port and identifies potential impacts on marine transportation, including navigation and safety, that would result from the implementation of the Proposed Project or an alternative.

Section 3.14, Marine Transportation, provides the following:

- a description of existing marine vessel traffic in the Port area;
- a description of existing navigational hazards and factors affecting vessel traffic safety in the Port, including regulations and policies;
- an impact analysis of the Proposed Project and alternatives.

Key Points of Section 3.14:

The Vessel Traffic Service (VTS, jointly operated by USCG and the Marine Exchange of Southern California) and the Los Angeles Pilot Service are the two primary vessel management services in Los Angeles Harbor. The VTS provides real-time ship locations and safety information from a 25-mile radius area of responsibility all the way to berth. The Pilot Service guides vessels between the harbor entrance and their berths.

As shown in Table 2-1, the Proposed Project would result in an increase of three container vessel calls per year by 2050 and thereafter as compared to the 2019 CEQA baseline, a 0.2% increase over the total annual ocean-going vessel calls of 1,867 at the Port in 2019. The No Project and No Federal Action alternatives would each result in an increase of 55 vessels by 2062, an increase of 3% in total vessel traffic.

Although the Proposed Project would increase the cargo throughput capacity of the Berths 121-131 Terminal, it would require fewer vessel calls than the two alternatives because the alternatives would not be able to accommodate the very largest container vessels ($\geq 14,000$ TEUs).

The existing harbor infrastructure, including the VTS and the Pilot Service, is adequate to handle the increased traffic, particularly since vessel numbers have been declining as vessels increase in size. Accordingly, neither the Proposed Project nor the alternatives would result in a significant impact on Marine Transportation under CEQA or NEPA because they would not substantially interfere with operation of designated vessel traffic lanes or impair the level of safety for vessels navigating the Main Channel, Outer Harbor, or Precautionary Area during construction (of the Proposed Project and No Federal Action) or operation (all three alternatives).

3.14.1 Introduction

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

The primary feature of the Proposed Project and alternatives related to marine transportation is future vessel traffic to and from the Berths 121-131 Terminal. At full operation, the Proposed Project would result in an estimated 156 vessel calls per year, or three more than the number of vessels that called the Berths 121-131 Terminal in 2019 (Table 2-1); the small increase would be due to the much larger vessels that the Proposed Project. By contrast, the No Project Alternative and the No Federal Action Alternative would result in 208 vessel calls per year (Table 2-2), resulting in a higher number of calls by smaller vessels despite the fact that the terminal's throughput would be lower.

3.14.2 Environmental Setting

The Port is located in San Pedro Bay and is protected from the open ocean by the San Pedro, Middle, and Long Beach breakwaters (Figure 3.14-1). 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 at 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 (Figure 3.14-1). The Federal Channels in the Port Complex are maintained by the U.S. Army Corps of Engineers (USACE).

3.14.2.1 Vessel Transportation Safety

Vessel traffic within and near the harbor is managed primarily by two entities: the Vessel Traffic Service (VTS) and the Los Angeles Pilot Service, both of which are described below in detail. Moreover, numerous measures are in place to ensure safe vessel navigation in the harbor area. These measures and the agencies and organizations responsible for their enforcement are described below.

Marine Exchange of Southern California

The Marine Exchange is a voluntary, non-profit organization affiliated with the Los Angeles Chamber of Commerce. This voluntary service is designated to enhance navigation safety in the precautionary and harbor areas of the Ports of Los Angeles and Long Beach. The service consists of a coordinating office, specific reporting points, and very high frequency-frequency modulation (VHF-FM) radio communications used with participating vessels. The Marine Exchange also operates the Physical Oceanographic Real Time System (PORTS) as a service to organizations making operational decisions in the vicinity of the harbor. PORTS collects 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. The Marine Exchange also jointly operates the VTS with the USCG.

Vessel Traffic Service

The VTS is operated jointly by the U.S. Coast Guard (USCG) Captain of the Port (COTP) and the Marine Exchange. The VTS uses radar, radio, and visual inputs to collect real-time vessel traffic information, and broadcasts traffic advisories to assist mariners in the main approach and departure lanes, including the Precautionary Area, as well as inside the harbor. Thus, the VTS helps 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.

Further, the 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 the 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.

If there are scheduling conflicts and/or if vessel occupancy within the harbor reaches operating capacity, vessels are required to anchor at the anchorages outside the breakwater until they receive COTP authorization to initiate transit into the harbor.

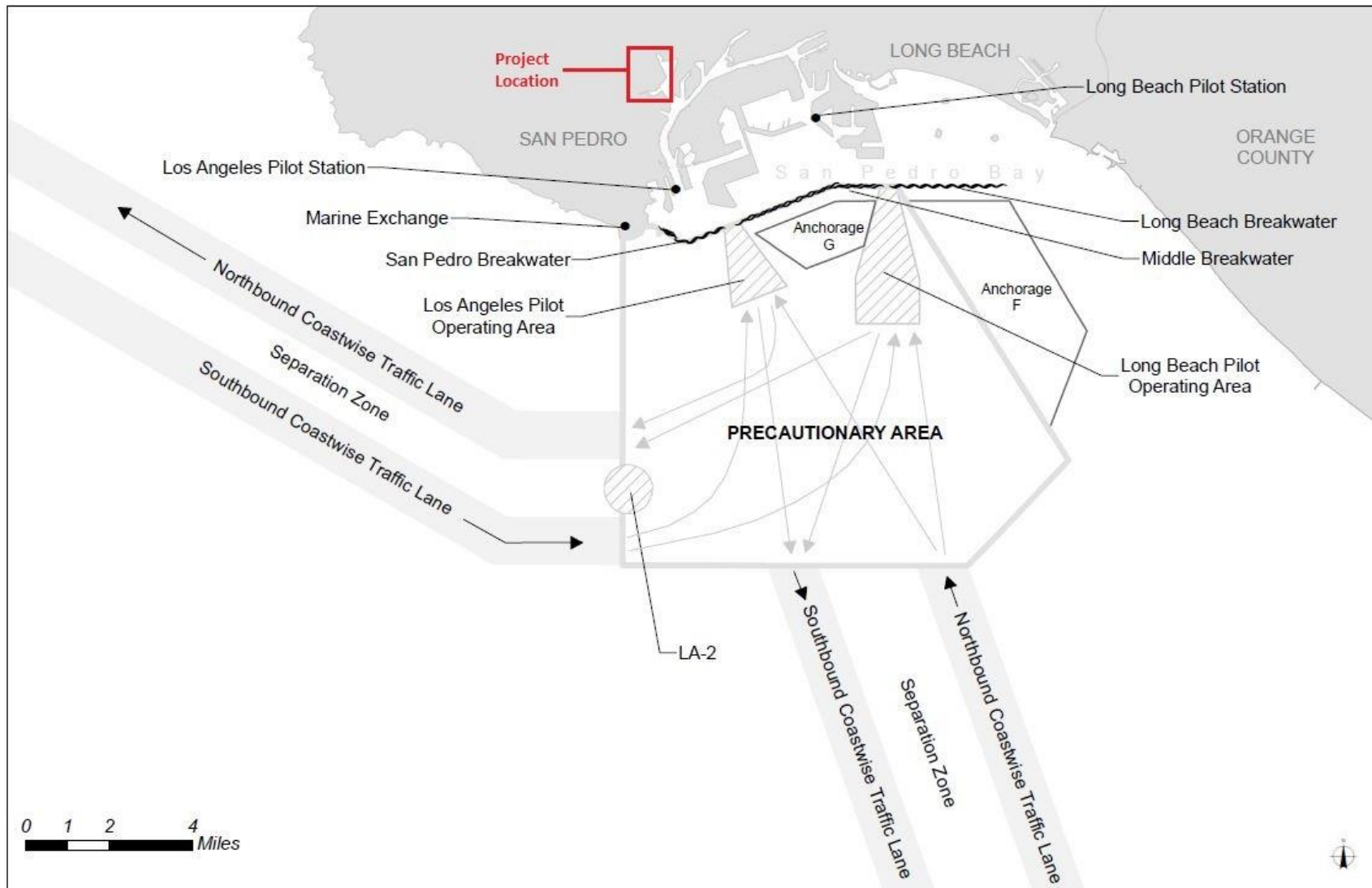
Traffic Separation Schemes

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 USCG, but they must be approved by the International Maritime Organization (IMO), which is part of the United Nations.

Safety Fairways

Offshore waters in high traffic areas are designated as safety fairways, which means that placement of surface structures, such as oil platforms, is prohibited. USACE is prohibited from issuing permits for permanent surface structures (e.g., oil platforms) in safety fairways (33 CFR 322, Section 322.5(l)), which are frequently located between a port and the entry into a TSS.

1 **Figure 3.14-1: Los Angeles Harbor Precautionary Area and Designated Vessel Traffic Lanes**



2

1 **Precautionary and Regulated Navigation Areas**

2 A Precautionary Area is designated in congested areas near the harbor entrances. A
3 Precautionary Area enables harbor officials to set speed limits or establish other safety
4 precautions for ships entering or departing a harbor. A regulated navigation area (RNA)
5 is a water area within a defined boundary for which federal regulations have been
6 established under 33 CFR 165.1109 for vessels navigating in this area. In the harbor,
7 RNA boundaries match the designated Precautionary Area. For example, 33 CFR
8 165.1152 identifies portions of the Precautionary Area as an RNA.

9 The Precautionary Area for the Port is defined by a line that extends south from Point
10 Fermin approximately 7 nautical miles (nm), then due east approximately 7 nm, then
11 northeast for approximately 3 nm, and then back northwest (Figure 3.14-1). Oceangoing
12 vessels and certain other craft are required to cruise at speeds of 12 knots or less upon
13 entering the Precautionary Area. A minimum vessel separation of 0.25 nm is also
14 required in the Precautionary Area. The Marine Exchange monitors vessel traffic within
15 the Precautionary Area.

16 **Pilotage**

17 Use of a pilot is required for all vessels of foreign registry and U.S. vessels that do not
18 have a federally licensed pilot on board. In addition, the Port Tariffs require larger
19 commercial vessels (i.e., greater than 300 gross tons) to use a federally licensed pilot
20 when navigating inside the breakwater. Because most commercial vessels entering the
21 Port are of foreign registry, the number of large commercial vessels transiting without
22 Port Pilot services is negligible. The pilot services also manage the use of anchorages
23 under an agreement with USCG. The communication system linking the key operational
24 centers (see VTS, above) is used to exchange vessel-movement information and safety
25 notices among the various organizations. Port tariffs also require vessels to notify the
26 affected pilot station(s) in situations when a pilot is not needed before entering, leaving,
27 shifting, or moving between the Ports.

28 The Los Angeles Pilot Service, based at Berth 68, maintains round-the-clock service in
29 San Pedro Bay, ensuring a safe flow of ship traffic to and from Los Angeles Harbor.
30 Pilots board arriving vessels in the Pilot Operating Area (Figure 3.14-1) to guide
31 incoming ships to dock and operate in the reverse for outbound ships.

32 The mission of the Los Angeles Pilot Service is to provide safe, reliable, and efficient
33 pilotage and marine services. Over the last decade, the Los Angeles Pilots have safely
34 completed more than 55,000 vessel movements. They are among the best-trained pilots
35 in the maritime industry. After a rigorous two-year training program, each pilot attends
36 manned-model ship handling courses in Grenoble, France, repeating the courses every
37 four years. Each pilot also attends ship simulator training every two years. The Los
38 Angeles Port Pilots have an average of 33 years of marine experience and 16 years of
39 piloting experience in San Pedro Bay.

40 **Tug Escort/Assist**

41 “Tug Escort” refers to the stationing of tugs in proximity to a vessel as it transits into port
42 to provide immediate assistance should a steering or propulsion failure develop. “Tug
43 Assist” refers to the positioning of tugs alongside a vessel and applying force to assist in
44 making turns, reducing speed, providing propulsion, and docking. Container vessels, as
45 well as most other oceangoing vessels, are required to have tug assistance in the harbor
46 (HSC 2023). However, other types of vessels have internal “tugs” (typically bow and
47 stern thrusters) that allow the vessel to propel without engaging the main engines and

1 thus can accomplish maneuvers with the same precision as a tug-assisted vessel. These
2 ships are not required to have external tug assistance.

3 Vessels that are waiting for a berth in the harbor can anchor at the anchorages outside the
4 breakwaters, with direction from the VTS. Vessels do not require tug assistance to anchor
5 outside the breakwater.

6 **Physical Oceanographic Real Time System**

7 In partnership with the National Oceanographic and Atmospheric Association (NOAA),
8 National Ocean Service (NOS), California Office of Spill Prevention and Response
9 (OSPR), USCG, and some businesses operating in the Ports, the Marine Exchange
10 operates PORTS as a service to those making operational decisions based on
11 oceanographic and meteorological conditions in the vicinity of the Port. PORTS is a
12 system of environmental sensors and supporting telemetry equipment that gathers and
13 disseminates accurate real-time information on tides, visibility, winds, currents, and sea
14 swell to maritime users to assist in the safe and efficient transit of vessels in the Port area.
15 Locally, PORTS is designed to provide crucial information in real time to mariners, oil
16 spill response teams, managers of coastal resources, and others about harbor water levels,
17 currents, salinity, and winds.

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

23 **Additional Safety Measures**

24 The Harbor Safety Plan (HSP) is maintained by the Los Angeles/Long Beach Harbor
25 Safety Committee (HSC), which is charged with planning and providing for the safe
26 navigation and operation of all vessels operating within San Pedro Bay, Santa Monica
27 Bay, the Los Angeles/Long Beach port complex and approaches, and addressing oil spills
28 and other maritime mishaps (HSC 2023). The HSP contains operating procedures for
29 vessels in the Port vicinity that are considered Good Marine Practice. Some of the
30 procedures are federal, state, or local regulations, while other guidelines are non-
31 regulatory “Standards of Care.” Another important safety measure is the issuance of the
32 weekly *Local Notice to Mariners* by the USCG. These notices list various activities that
33 could pose a hazard to mariners in the Port.

34 **Additional Navigation Rules**

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

39 For the open seas, the International Rules apply and were ratified at the Convention on
40 the International Regulations for Preventing Collisions at Sea in 1972. The International
41 Rules apply to all vessels of nations that ratified the treaty, in addition to the United
42 Nations. Efforts to unify and update various inland navigation rules culminated in 1980
43 with the enactment of the Inland Navigation Rules Act (22 CFR 83). The Inland Rules
44 were established under the authorization of International Rule 1(b) to apply to all inland
45 waters of the United States, and closely match, in some cases exactly, the International
46 Rules. All marine vessels in the Port are required to follow these vessel safety policies
47 and regulations.

3.14.2.2 Navigational Hazards

Port Pilots can easily identify fixed navigational hazards in the Ports, including breakwaters protecting the Outer Harbor, anchorage areas, and various wharfs and landmasses that compose the Port Complex. These hazards are readily apparent on radar and are currently illuminated. Four bridges cross the navigation channels of both ports. All bridges have restricted vertical clearances, and two have restricted horizontal clearances as well. Vessels are required by law to report failures of navigational equipment, propulsion, steering, or other vital systems to USCG via the COTP office or the COTP representative at VTS as soon as possible.

Vessel Incidents

Although marine safety is closely regulated and managed, incidents involving vessels can occur during marine navigation. The most common incident reported by the HSC is loss of propulsion by vessels entering or leaving the Port Complex. These averaged approximately 13 per year between 2017 and 2022 (HSC 2023). Marine vessel accidents include vessel collisions (between two moving vessels), allisions (between a moving vessel and a stationary object, including another stationary vessel), and vessel groundings. The number of vessel allisions, collisions, and groundings (ACGs) in the harbor has been very low: the HSC reported none in the period 2017 – 2022 (HSC 2023), despite total vessel traffic of approximately 4,000 arrivals per year.

Close Quarters

To avoid vessels passing too close together, the VTS documents, reports, and takes action on “close quarters” situations. VTS close-quarters situations are described as vessels passing an object or another vessel closer than 0.25 nm, or 500 yards. These incidents usually occur in the Precautionary Area. No reliable data are available for close-quarters incidents outside the VTS area. Normal action taken in response to close quarters situations includes initiating informal USCG investigation, sending Letters of Concern to owners and operators, having the involved vessel master visit VTS and review the incident, and USCG enforcement boardings. According to the HSC (2022), only five close calls occurred in the period 2012 -- 2019.

3.14.2.3 Environmental Factors Affecting Vessel Traffic Safety

Environmental conditions that could affect vessel safety in the harbor area include fog, winds, tidal and seiche currents, and water depth. Visibility-obscuring fog is a well-known weather condition in southern California, occurring most frequently in April and from October through February, when visibility over the San Pedro Bay is below 0.5 mile for seven to ten days per month. Along the shore, fog drops visibility to less than 0.5 mile on three to eight days per month from August through April and is generally at its worst in December (HSC 2023).

Wind conditions vary, particularly in fall and winter. Winds can be strongest when the Santa Ana winds (typically strong winds from the northeast occurring episodically from October through March) blow. Aside from weather forecasts, there is little warning of a Santa Ana wind onset, although good visibility and unusually low humidity often prevail for some hours before it arrives (HSC 2023). Winter storms produce strong winds over San Pedro Bay, particularly southwesterly through northwesterly winds. Winds of 17 knots or greater occur about 1 to 2% of the time from November through May. Southwesterly through westerly winds begin to prevail in the spring and last into early fall (HSC 2023).

1 The mean range of tide in Los Angeles Harbor is 3.8 feet, the diurnal range is about 5.4
 2 feet, and a range of 9 feet may occur at maximum tide (HSC 2023). Harbor tidal currents
 3 follow the axes of the channels, and USACE ship navigation studies indicate that in the
 4 Port channels, current magnitudes are essentially a negligible one-third knot or less.
 5 Maximum current velocity in the Angels Gate area is generally less than one knot. These
 6 current magnitudes, determined during a simulation study, are depth-averaged values
 7 over three layers.

8 The harbor area is subject to seiches (waves that surge back and forth in an enclosed
 9 basin as a result of wind, air pressure, basin resonance, seismic action, etc.) and surge,
 10 with the most persistent and conspicuous oscillation having about a one-hour period.
 11 Near Reservation Point, the prominent hourly surge causes velocity variations as great as
 12 one knot. These variations often overcome the tidal current, so that the actual current
 13 reverses direction at half-hour intervals. At times, the hourly surge, together with shorter,
 14 irregular oscillations, causes a very rapid change in water height and current
 15 direction/velocity, which may endanger vessels moored at the piers (HSC 2023).

16 The controlling water depths in the harbor approaches and maneuvering areas (Table
 17 3.14-1) are sufficient to accommodate the largest containerhips, which draw
 18 approximately 52 feet (16 m; Marine Insight 2023). The existing depth at the Berths 121–
 19 131 Terminal is -45 feet mean lower low water (MLLW).

Table 3.14-1: Water Depths within the Port of Los Angeles

Channel/Basin	Depth – MLLW in feet (meters)
Main Channel	-53 (-16.2)
Turning Basin	-53 (-16.2)
West Basin	-53 (-16.2)
East Basin	-53 (-16.2)
Approach and Entrance Channels	-81 (-24.7)

Sources: HSC (2023), LAHD (2021)

20 **3.14.2.4 Vessel Traffic**

21 A total of 1,867 oceangoing vessels called at the Port in 2019 (LAHD 2024). As shown in
 22 Table 3.14-2, vessel traffic to the Port was relatively constant at 2,500 to 3,000 calls per
 23 year through 2007, but has declined since, as the increase in cargo volumes have been
 24 accommodated by larger vessels rather than additional vessels. The Main Channel sees
 25 the majority of the commercial vessel traffic as it allows access to terminals such as
 26 TraPac, China Shipping, YTI, Pasha, Evergreen/Everport, and the Berths 121-131
 27 Terminal (the site of the Proposed Project).

Table 3.14-2: Oceangoing Vessel Calls at the Port of Los Angeles

Year	Ship Calls	Year	Ship Calls
2000	3,060	2010	2,035
2001	2,717	2011	2,072
2002	2,526	2012	1,953
2003	2,660	2013	2,033
2004	2,850	2014	1,962

Table 3.14-2: Oceangoing Vessel Calls at the Port of Los Angeles

Year	Ship Calls		Year	Ship Calls
2005	2,341		2015	1,774
2006	2,708		2016	1,865
2007	2,538		2017	1,801
2008	2,239		2018	1,737
2009	2,010		2019	1,867

Source: USACE and LAHD (2009), LAHD (2024).

1
2 In 2019 the Berth 121-131 Terminal received 153 vessel calls, or approximately 8% of
3 the oceangoing vessel calls to the Port. The terminal handled a maximum of three vessels
4 in a peak day. No vessels over 4,000 TEU capacity called at the terminal in 2019. Two
5 tugboats are generally required for each ship docking and undocking, for a total of four
6 tugs per vessel call.

7 **3.14.3 Applicable Regulations**

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

12 **3.14.3.1 Federal Agencies**

13 Several federal laws regulate marine terminals and vessels. In general, these laws address
14 design and construction standards, operational standards, and spill prevention and
15 cleanup. Regulations to implement these laws are contained primarily in CFR Titles
16 33 (Navigation and Navigable Waters), 40 (Protection of Environment), and
17 46 (Shipping). The General Survey Act of 1824 established the role of USACE as the
18 agency responsible for the navigation system. Since then, ports have worked in
19 partnership with USACE to maintain waterside access to port facilities.

20 **U.S. Coast Guard**

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

30 **Department of Defense**

31 The Department of Defense (DoD), through USACE, is responsible for reviewing all
32 aspects of a project and spill response activities that could affect navigation. The USACE
33 Operations and Maintenance (O&M) program is responsible for maintaining
34 Congressionally funded facilities including dredging of navigation channels, removing
35 navigation obstructions from navigation channels, and accomplishing structural repairs

1 (e.g., the Ports of Los Angeles and Long Beach breakwater). USACE also has regulatory
2 jurisdiction under Section 10 of the Rivers and Harbors Appropriation Act of 1899 for all
3 work and structures in, over, or under navigable waters that could affect the course,
4 location, condition, or navigable capacity of any navigable waters of the United States.

5 **3.14.3.2 Other Organizations**

6 **Marine Exchange of Southern California**

7 As described in Section 3.14.2.1, “Vessel Transportation Safety,” the Marine Exchange is
8 a non-profit organization affiliated with the Los Angeles Chamber of Commerce. The
9 organization is supported by subscriptions from Port-related organizations that recognize
10 the need for such an organization and use its services. This voluntary service is
11 designated to enhance navigation safety in the Precautionary Area and harbor area of the
12 Ports. The Marine Exchange monitors vessel traffic in the Precautionary Area and
13 operates PORTS (see Section 3.14.2.1) as a service to those making operational decisions
14 based on oceanographic and meteorological conditions in the vicinity of the Ports. The
15 Marine Exchange also jointly operates the VTS with the USCG.

16 **Harbor Safety Committee**

17 The Los Angeles/Long Beach Harbor Safety Committee (Committee) is responsible for
18 planning the safe navigation and operation of tankers, barges, and other vessels in San
19 Pedro Bay and approach areas. The Committee was created under the authority of
20 Government Code Section 8670.23(a), which requires the Administrator of the Office of
21 Oil Spill Prevention and Response to create a Harbor Safety Committee for the
22 Los Angeles/Long Beach Harbor area. The Committee issued the original Harbor Safety
23 Plan in 1991 and has issued annual updates since. Major issues facing the Committee
24 include the need for escort tugs, required capabilities of escort tugs, and need for new or
25 enhanced vessel traffic information systems to monitor and advise vessel traffic. The
26 Committee is required to review and evaluate the following:

- 27 • Sounding checks;
- 28 • Anchorage designations;
- 29 • Traffic and routings from Port construction and dredging projects and during
30 emergencies that impact navigation;
- 31 • Communications systems;
- 32 • Channel design plans;
- 33 • Placement and effectiveness of navigational aids;
- 34 • Bridge management requirements;
- 35 • Small vessel congestion in shipping channels;
- 36 • Recommendation as to whether establishing or expanding VTS systems within
37 the harbors is desirable, and recommendations for funding projects;
- 38 • Recommendation for determining when tankers must be accompanied by an
39 escort tug(s);
- 40 • Competitive aspects of recommendations; and
- 41 • Mechanisms to ensure that the provisions of the plan are fully and regularly
42 enforced.

1 The Committee developed a regulatory scheme to institutionalize Good Marine Practices
2 and guide those involved in moving tanker vessels, which include the minimum standards
3 that are applicable under favorable circumstances and conditions. The master or pilot
4 arranges for additional tug assistance if bad weather, unusual Port congestion, or other
5 circumstances so require.

6 Harbor Safety Plan

7 The HSP (HSC 2023) contains operating procedures for vessels. All of the procedures are
8 considered Best Maritime Practices, but some are regulations while others are non-
9 regulatory Standards of Care. These Vessel Operating Procedures (VOP) have been
10 extracted from the main text of the HSP in order to create a helpful *Quick Reference*
11 *Guide* containing the most important information necessary for safe, reliable, and
12 environmentally sound vessel movements in and around the Port area. These VOP list
13 only the basics; additional and more detailed information are provided in the chapters of
14 the HSP addressing each topic. Port Tariffs also contain requirements for vessels
15 operating in and around the Port. Nothing in these procedures precludes a master and/or
16 pilot from taking necessary and prudent actions to avoid or mitigate unsafe conditions.

17 Among other requirements and standards, the HSP provides specific rules for navigation
18 of vessels in reduced visibility conditions and establishes vessel speed limits. In general,
19 speeds should not exceed 12 knots inside the Precautionary Area or 6 knots in the harbor.
20 These speed restrictions do not preclude the master or pilot from adjusting speeds to
21 avoid or mitigate unsafe conditions. Weather, vessel maneuvering characteristics, traffic
22 density, construction, dredging, and other possible issues are taken into account.

23 3.14.4 Impacts and Mitigation Measures

24 Methodology

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

31 CEQA Baseline

32 Section 15125 of the CEQA Guidelines requires EIRs to include a description of the
33 physical environmental conditions in the vicinity of a project that exist at the time of the
34 NOP. These environmental conditions constitute the baseline by which the CEQA lead
35 agency determines if an impact is significant. The CEQA baseline represents the setting
36 at a fixed point in time. The CEQA baseline differs from the No Project Alternative
37 (Alternative 1) in that the No Project Alternative addresses what is likely to happen at the
38 proposed project site over time, starting from the existing conditions. Therefore, the No
39 Project Alternative allows for growth at the proposed project site that could be expected
40 to occur without additional approvals, whereas the CEQA baseline does not.

41 For purposes of this Draft EIS/EIR, the CEQA baseline consists of calendar year 2019.
42 The baseline conditions for the Proposed Project and alternatives are described in Section
43 2.7.1 and summarized in Table 2-1. In summary, in 2019, the Berths 121-131 Terminal
44 handled 153 vessel calls.

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 2.7.2 and summarized in Table 2-1. 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. Significance under NEPA is defined by comparing the Proposed Project or the alternatives to the NEPA baseline.

Unlike the CEQA baseline, which is a fixed point in time, the NEPA baseline includes increases in operations for each study year (2026, 2027, 2028, 2036, and 2050), which are projected to occur absent a federal permit. As described in Section 2.7.2, the NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal Action Alternative, and includes no in-water work (wharf demolition and construction, dredging and disposal, crane installation). Only expansion of the WBICTF railyard would occur, which would not change the physical configuration or operational capacity of the Berths 121-131 Terminal. The NEPA baseline assumes that by 2062 the terminal would accommodate 208 annual ships calls at two berths.

3.14.4.2 Thresholds of Significance

There are no marine transportation thresholds specific to NEPA; therefore, the CEQA thresholds are used for both NEPA and CEQA analysis. CEQA Guidelines Appendix G does not contain criteria for determining the significance of impacts related to maritime transportation; accordingly, the LAHD developed a criterion specific to maritime activities at the Port of Los Angeles.

The Proposed Project or alternative would have a significant impact on marine transportation if it would:

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

3.14.4.3 Impact Determination

Proposed Project

Impact VT-1: Would vessel traffic associated with the Proposed Project 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?

Construction

As described in Section 2.6.1, construction of the Proposed Project would include demolition of the existing wharf and removal of piles at Berths 126-129, dredging of up to 310,000 cubic yards of sediments to deepen the berth, possible rock dike reconstruction, installation of piles and construction of a new wharf, installation of new wharf cranes, and landside improvements.

In-water work involving vessel activity would include the pile removal, dredging and possible dredge material disposal, rock dike reconstruction, pile driving, and crane

1 installation. Pile removal would require a barge/tugboat combination. As shown in Table
 2 3.14-4, the dredging would require a single, barge-mounted derrick dredge supported by
 3 a tugboat and one or two small work boats. If in-water or in-harbor disposal is used,
 4 disposal scows would be towed to the disposal site (the LA-2 site approximately seven
 5 miles outside Angel's Gate and/or an in-harbor confined disposal site). Rock dike
 6 reconstruction would involve a barge/tugboat/crane combination, and pile installation
 7 would be accomplished by a landside crane and/or a water-based derrick crane barge
 8 supported by a tugboat, supply barge, and work boat. Up to 10 new super-post-Panamax
 9 cranes would be delivered to the terminal by three or four specialized oceangoing cargo
 10 vessels. In total, in-water construction activity would occur for approximately 14 months
 11 during the 21-month construction period.

Table 3.14-4: Proposed Project Construction Vessels

Proposed Project Element	Activity	Vessel Type	Number	Estimated Duration (months)	Days of Activity
Demolition	Wharf Demolition	Derrick Barge Tugboat	1 1	3	70
Dredging and Disposal	Dredging, Ocean/In-Harbor Disposal	Derrick Barge Dump Scow Tugboat Work Boat	1 1 2 1	4	120
Pile Installation	Pile Driving	Derrick Barge Tugboat Supply Barge Dive Boat	1 1 1 1	3	80
Dike Construction	Rock Dike Removal and Replacement	Derrick Barge	1	4	120
Crane Delivery	Transit	Ocean going Vessels	3	<1	3

Notes:

Equipment may be used for several activities (e.g., barges and tugboats), and activities may overlap, resulting in fewer actual days of equipment operation and fewer pieces of equipment.

Equipment may work only partial days. One day is considered 8 hours; therefore, equipment operating 4 hours in an 8-hour shift is the equivalent to a ½ day, and equipment active for a 24-hour period is equivalent to 3 days.

13 In-water and over-water construction activities in the West Basin are not expected to
 14 result in substantial hazards to vessel traffic or substantially increase the potential for
 15 accidents. Although marine-based construction equipment could restrict some vessel
 16 movement inside the West Basin during the few months of dredging, the various vessels
 17 would be highly visible, well -marked, and generally stationary.

18 In-water and over-water construction activities are conducted routinely in the Port; and
 19 contractors performing in-water and over-water construction activities are subject to
 20 applicable rules and regulations stipulated in all LAHD contracts and USACE permits,
 21 including navigation hazard markings, communication with the COTP and Marine
 22 Exchange, and notices to mariners. Because standard safety precautions would be utilized
 23 by all contractors, the presence of the barges and supporting boats would not substantially
 24 affect marine vessel safety in the main channels and connected basin areas. Furthermore,

1 the West Basin is sufficiently wide to allow marine-based construction equipment and
2 regular Port operations to co-exist for short periods. Accordingly, in-water construction
3 equipment would not interfere with marine transportation activities in the West Basin.

4 **CEQA Impact Determination**

5 Construction vessel activity in the West Basin is not expected significantly to increase the
6 potential accident risk for vessel navigation or navigation safety. The short duration of
7 construction, the routine operational safeguards, and the routine nature of the
8 construction would minimize the potential for navigation hazards. Therefore,
9 construction impacts on vessel traffic would be less than significant under CEQA.

10 **Mitigation Measures**

11 No mitigation is required.

12 **Residual Impacts**

13 Impacts would be less than significant.

14 **NEPA Impact Determination**

15 Construction vessel activity in the West Basin is not expected to substantially increase
16 the potential accident risk for vessel navigation or navigation safety. The short duration
17 of construction, the routine operational safeguards, and the routine nature of the
18 construction would minimize the potential for navigation hazards. Therefore,
19 construction impacts on vessel traffic would be less than significant under NEPA.

20 **Mitigation Measures**

21 No mitigation is required.

22 **Residual Impacts**

23 Impacts would be less than significant.

24 **Operation**

25 By full operation the Proposed Project would receive 156 vessels per year, three more
26 than under 2019 baseline conditions. The improvements to the wharf and berth under the
27 Proposed Project would allow vessels of 16,000 TEU capacity and larger to call at the
28 Berths 121-131 Terminal, whereas the baseline vessels do not exceed 4,000 TEUs in
29 capacity. Thus, the Proposed Project would not only result in an increase in the number
30 of vessels but would result in larger vessels calling at the terminal and navigating the
31 harbor waters.

32 The navigational areas of Los Angeles Harbor, including the Precautionary Area, the
33 Outer Harbor, and the Main Channel, are of sufficient size and depth to accommodate the
34 proposed increase in numbers and vessel size of operational vessel traffic. Vessels of over
35 20,000 TEU capacity have already called at marine terminals in both ports without
36 incident, and the number of vessels has actually declined in recent years, indicating that
37 additional traffic can be accommodated. The West Basin is also deep and wide enough to
38 accommodate the larger vessels.

39 Moreover, given the continued use of standard practices, the projected increase in annual
40 ship calls at the Berths 121-131 Terminal would not significantly decrease the margin of
41 safety for marine vessels in the proposed project area. These practices, which include
42 adherence to HSP speed-limit regulations and COTP uniform procedures and directives,
43 adherence to limited visibility- guidelines, VTS monitoring requirements, and Port tariffs
44 requiring foreign-registered vessels to use a Port Pilot for transit in the San Pedro Bay

1 region, would ensure safe transit of vessels operating within and to and from the proposed
2 project site.

3 **CEQA Impact Determination**

4 Because vessel traffic associated with the Proposed Project would not exceed the
5 navigational capacity of the harbor and would not substantially decrease the safety of
6 vessel operations in the harbor, impacts associated with operation of the Proposed Project
7 would be less than significant under CEQA.

8 ***Mitigation Measures***

9 No mitigation is required.

10 ***Residual Impacts***

11 Impacts would be less than significant.

12 **NEPA Impact Determination**

13 Because vessel traffic associated with the Proposed Project would not exceed the
14 navigational capacity of the harbor and would not substantially decrease the safety of
15 vessel operations in the harbor, impacts associated with operation of the Proposed Project
16 would be less than significant under NEPA.

17 ***Mitigation Measures***

18 No mitigation is required.

19 ***Residual Impacts***

20 Impacts would be less than significant.

21 **Alternative 1 – No Project**

22 Under Alternative 1, none of the proposed construction activities, including wharf
23 demolition and construction, dredging, crane installation, and railyard expansion, would
24 occur, either in water or in backland areas.

25 Under the No Project Alternative, the Berths 121-131 Terminal would continue its
26 existing operations, although throughput would gradually increase to the terminal's
27 current maximum capacity. Accordingly, in 2062 the Berths 121-131 Terminal would
28 accommodate an estimated 208 vessels of up to 8,000 TEU capacity each (Table 2-2).

29 **Impact VT-1: Would vessel traffic associated with the No Project 30 Alternative substantially interfere with operation of designated 31 vessel traffic lanes and/or impair the level of safety for vessels 32 navigating the Main Channel, harbor, or Precautionary Area?**

33 **Construction**

34 Under the No Project Alternative, no construction would occur.

35 **CEQA Impact Determination**

36 Because no construction would occur, no construction-related impacts would occur.

37 ***Mitigation Measures***

38 No mitigation is required.

39 ***Residual Impacts***

40 No impacts would occur.

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Operation

Under the No Project Alternative, operational vessel traffic at the Berths 121-131 Terminal is projected to increase by up to 55 vessels over the existing baseline operational conditions (Table 2-2). Furthermore, the terminal could not accommodate the largest vessel sizes projected to call at the Port of Los Angeles.

The addition of 55 vessel calls annually would represent an increase of only 3% of the 1,867 ship calls at the Port Complex in 2019 (Table 3.14-2). The navigational areas of Los Angeles Harbor, including the Precautionary Area, the Outer Harbor, and the Main Channel, are of sufficient size and depth to accommodate the proposed increase in operational vessel traffic.

Moreover, given the continued use of standard practices, including adherence to HSP speed-limit regulations and COTP uniform procedures and directives, adherence to limited visibility guidelines, VTS monitoring requirements, and Port Tariffs requiring vessels of foreign registry to use a Port Pilot for transit in and out of the San Pedro Bay area and adjacent waterways, the projected increase in annual ship calls at the Berths 121-131 Terminal would not significantly decrease the margin of safety for marine vessels in the Los Angeles/Long Beach area and would ensure safe transit of vessels operating within and to and from the proposed project site.

CEQA Impact Determination

Because vessel traffic associated with the No Project Alternative would not exceed the navigational capacity of the harbor and would not substantially decrease the safety of vessel operations in the harbor, impacts associated with operation of Alternative 1 would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Alternative 2 – No Federal Action

Alternative 2 is a NEPA-required no-action alternative for purposes of this Draft EIS/EIR. This alternative includes only those the activities that would occur absent a USACE permit, i.e., expansion of the WBICTF railyard in the terminal backlands. No in-water construction activities would occur, and the capacity of the existing terminal would be unchanged.

The No Federal Action Alternative differs from the No Project Alternative, above, only in the expansion of the WBICTF, which would not take place under the No Project Alternative. That element would not affect maritime transportation; accordingly, marine transportation impacts of the No Federal Action Alternative would be identical to those of the No Project Alternative. As explained in Section 2.9.1.2, CEQA impacts are being considered under the No Federal Action Alternative because actions subject to CEQA analysis (expansion of the WBICTF) would take place.

Impact VT-1: Would vessel traffic associated with the No Federal Action Alternative 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?

Construction

Construction activities under Alternative 2 would include only backlands improvements; the only water-based activity that would occur would be delivery of the RMG cranes by oceangoing vessel. It is unlikely that more than five vessel calls would be needed to deliver up to 10 cranes. Such a small number of vessels, given the fact that the Los Angeles/Long Beach port complex handles approximately 4,000 vessel calls per year, would not interfere with vessel operations in the Port of Los Angeles.

CEQA Impact Determination

Because vessel activity associated with construction of the No Federal Action Alternative would not substantially interfere with vessel operations in the Port, impacts related to marine transportation would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

NEPA Impact Determination

Because vessel activity associated with construction of the No Federal Action Alternative would not substantially interfere with vessel operations in the Port, impacts related to marine transportation would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

No impacts would occur.

Operation

Under the No Federal Action Alternative, operational vessel traffic at the Berths 121-131 Terminal is projected to increase by up to 55 vessels over the existing baseline

1 operational conditions (Table 2-2). Furthermore, the terminal could not accommodate
2 the upper range of vessel sizes projected to call at the Port of Los Angeles.

3 The addition of 55 vessel calls annually would represent an increase of only 3% of the
4 1,867 ship calls at the Port Complex in 2019 (Table 3.14-3). The navigational areas of
5 Los Angeles Harbor, including the Precautionary Area, the Outer Harbor, and the Main
6 Channel, are of sufficient size and depth to accommodate the proposed increase in
7 operational vessel traffic.

8 Moreover, given the continued use of standard practices, including adherence to HSP
9 speed-limit regulations and COTP uniform procedures and directives, adherence to
10 limited visibility guidelines, VTS monitoring requirements, and Port Tariffs requiring
11 vessels of foreign registry to use a Port Pilot for transit in and out of the San Pedro Bay
12 area and adjacent waterways, the projected increase in annual ship calls at the Berths
13 121-131 Terminal would not significantly decrease the margin of safety for marine
14 vessels in the proposed project area and would ensure safe transit of vessels operating
15 within and to and from the proposed project site.

16 **CEQA Impact Determination**

17 Because vessel traffic associated with the No Federal Action Alternative would not
18 exceed the navigational capacity of the harbor and would not substantially decrease the
19 safety of vessel operations in the harbor, impacts associated with operation of Alternative
20 2 would be less than significant under CEQA.

21 **Mitigation Measures**

22 No mitigation is required.

23 **Residual Impacts**

24 Impacts would be less than significant.

25 **NEPA Impact Determination**

26 Because vessel traffic associated with the No Federal Action Alternative would not
27 exceed the navigational capacity of the harbor and would not substantially decrease the
28 safety of vessel operations in the harbor, impacts associated with operation of Alternative
29 2 would be less than significant under NEPA.

30 **Mitigation Measures**

31 No mitigation is required.

32 **Residual Impacts**

33 No impacts would occur.

34 **3.14.4.4 Summary of Impact Determinations**

35 Table 3.14-5 summarizes the CEQA and NEPA impact determinations of the Proposed
36 Project and alternatives related to Marine Transportation, as described in the detailed
37 discussion above. This table is meant to allow easy comparison between the potential
38 impacts of the Proposed Project and alternatives with respect to this resource. Identified
39 potential impacts may be based on federal, state, or City significance criteria; LAHD
40 criteria; and the scientific judgment of the report preparers.

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

1 **3.14.4.1 Mitigation Monitoring**

2 Neither the Proposed Project nor either of the alternatives would result in significant
 3 impacts on Marine Transportation. Therefore, no mitigation measures are required.

4 **3.14.5 Significant Unavoidable Impacts**

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

7 **Table 3.13-5: Summary Matrix of Potential Impacts and Mitigation Measures for Marine**
 8 **Transportation Associated with the Proposed Project and Alternatives**

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
Proposed Project	VT-1: Would vessel traffic associated with construction or operation of the Proposed Project 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	No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	Mitigation not applicable	NEPA: Less than significant
Alternative 1 No Project	VT-1: Would vessel traffic associated with construction or operation of the No Project Alternative 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: No impact	No mitigation is required.	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
Alternative 2 No Federal Action	VT-1: Would vessel traffic associated with construction or operation of the No Federal Action Alternative 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	No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	Mitigation not applicable	NEPA: No impact

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