

3.9 Marine Transportation

3.9.1 Introduction

This section describes existing marine vessel transportation within the Port, the Main Channel, and Outer Harbor area, and evaluates potential impacts on marine vessel transportation associated with the Proposed Action.

3.9.2 Environmental Setting

The Port is located in San Pedro Bay. The Bay is protected from Pacific Ocean surge conditions by the San Pedro, Middle, and Long Beach breakwaters (see Figure 3.9-1). The openings between these breakwaters, known as Angel's Gate and Queens Gate, provide entry to the Port and the POLB, respectively. Vessel traffic channels have been established in the harbor and numerous aids to navigation have been developed.

Several vessels including fishing boats, pleasure vessels, passenger-carrying vessels, tankers, auto carriers, container vessels, dry bulk carriers, and barges call or reside in the Port. Commercial vessels follow vessel traffic lanes established by the United States Coast Guard (USCG) when approaching and leaving the harbor.

Vessel Transportation Safety

Vessel traffic levels are highly regulated by the USCG Captain of the Port (COTP) and the Marine Exchange of Southern California via the Vessel Traffic Service (VTS) to ensure the total number of vessels transiting the Port does not exceed the design capacity of the federal channel limits. Mariners are required to report their position prior to transiting through the Port to the COTP and the VTS; the VTS monitors the positions of all inbound/outbound vessels within the Precautionary Area and the approach corridor traffic lanes (Figure 3.9-2). In the event of scheduling conflicts and/or vessel occupancy within the Port is operating at capacity, vessels are required to anchor at the anchorages outside the breakwater until mariners receive COTP authorization to initiate transit into the Port.

Several measures are in place to ensure the safety of vessel navigation in the harbor area. Restricted navigation areas and routes have been designated to ensure safe vessel navigation, and are regulated by various agencies and organizations to ensure navigational safety; these are described below.



Figure 3.9-1
 Location of Breakwater and Port of Entry Gates
 within San Pedro Bay

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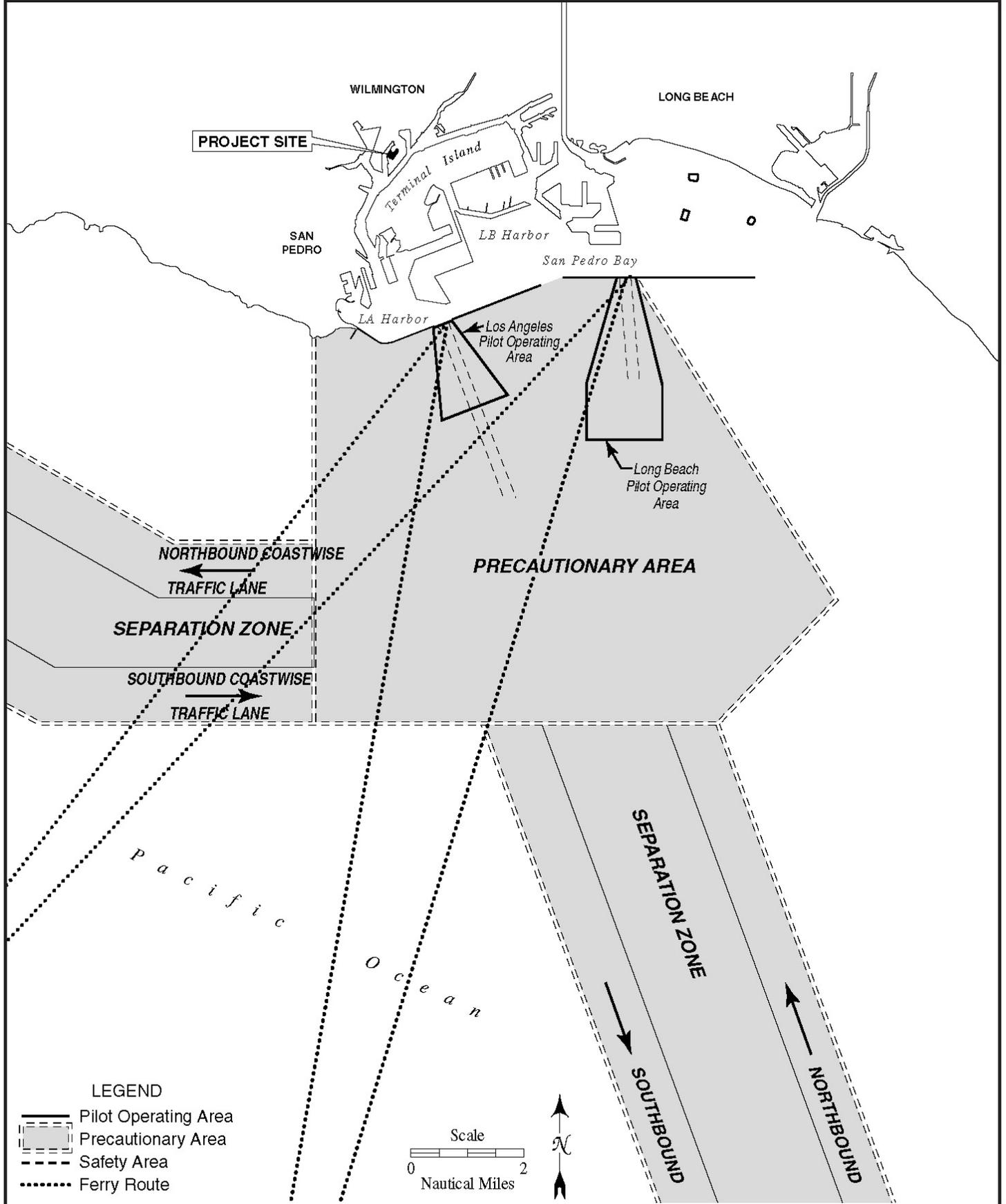


Figure 3.9-2
 Vessel Navigation Safety Areas
 at POLA & POLB

Precautionary and Regulated Navigation Areas. A Precautionary Area is designated in congested areas near the POLA/POLB harbor entrances to set speed limits or to establish other safety precautions for ships entering or departing the Harbor (see Figure 3.9-2). A regulated navigation area (RNA) is the water area within a defined boundary, for which federal regulations for vessels navigating within this area have been established under 33 C.F.R. § 165.1109. In the case of the Los Angeles/Long Beach Harbor, RNA boundaries match the designated Precautionary Area. Ships are required to cruise at speeds of 12 knots or less and a minimum vessel separation of 0.25 nm is required in the Precautionary Area.

Captain of the Port. The COTP is designated by the Commandant of the Coast Guard to direct law enforcement activities within a designated area of responsibility. A COTP enforces regulations for the protection and security of vessels, harbors, and waterfront facilities; anchorages; bridges; safety and security zones; and ports and waterways. The COTP has the authority to take appropriate action to secure an area when those with primary responsibility fail to provide or become incapable of providing proper protection for a vessel or waterfront facility. The COTP may stipulate to a master, agent, owner or operator of a vessel or facility, the types of measures or actions for that party to take which will satisfy the requirements of particular regulations for the master, agent, owner or operator to take necessary precautions to protect his vessel or facility.

The COTP also controls the anchorage and movement of any vessel, foreign or domestic, in the territorial waters of the US, as to ensure the safety and security of any US Naval vessels that may be present.

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 Area and harbor area of the Ports. The service consists of a coordinating office, specific reporting points, and very high frequency-frequency modulation (VHF-FM) radio communications used with participating vessels. Vessel traffic channels and numerous aids to navigation (i.e., operating rules and regulations) have been established in the Port. The Marine Exchange also operates the Physical Oceanographic Real Time System (PORTS) as a service to organizations making operational decisions based on oceanographic and meteorological conditions in the vicinity of the Port. The 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 Port area.

Vessel Traffic Service (VTS). 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 may also request information about traffic they could encounter in the Precautionary Area. In addition, a communication system links the following key operational centers: USCG Captain of the Port, 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.

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 Port). Los Angeles Harbor Pilots provide pilotage to the Ports and receive special training that is regulated by the Harbor Safety Committee. 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 re-board the vessels to pilot them back to sea or to other destinations within the Port. In addition, radar systems are also operated by Los Angeles Harbor Pilots 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.

The Port 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 Los Angeles Harbor Pilots. In instances where a local pilot is not used, masters must have a local federal pilot license and receive approval by the USCG Captain of the Port prior to entering or departing the Port. 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 Ports.

Navigational Hazards

Although marine safety is thoroughly regulated and managed within the Port, various undesirable events can occur during marine navigation. Marine vessel accidents include vessel collisions (between two moving vessels), “allisions” (between a moving vessel and a stationary object, including another vessel), and vessel groundings. The number of vessel allisions, collisions, and groundings (ACGs) in POLA and POLB has remained fairly constant between

2000 and 2004¹ (see Table 3.9-1) at approximately 7 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. It should be noted that, during this time, there has been a large amount of construction and channel deepening within the ports.

While there is no reliable data on the level of recreational boating incidents in the ports over this time period, the level of commercial traffic transits has remained fairly constant (± 2 percent).

Table 3.9-1 Allisions, Collisions, and Groundings – POLA/POLB (2000-2004)

Year	ACG INCIDENTS			Total
	Allisions	Collisions	Groundings	
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

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

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

Vessel Traffic

A total of 2,715 vessels visited (i.e., container cargo, break-bulk, dry-bulk, and liquid-bulk) visited the Port in 2004, and vessel traffic to the Port has remained relatively constant over the past few years (Table 3.9-2). The number of vessels passing through the breakwaters (entering and leaving) can be estimated by doubling the number of visits listed in the table.

Table 3.9-2 Vessel Calls (Visits) at the Port of Los Angeles

Year	Vessel Calls
2004	2,715
2003	2,660
2002	2,526
2001	2,899
2000	3,060

Source: LAHD and USACE, 2008

Commercial vessel traffic within the Port’s existing federal channel limits (Main Channel, West Basin, East Basin, and Cerritos Channel) consists mostly of container shipping, with less tankers and other marine traffic.

The Channel Deepening Project (USACE 2004, 2003, 2002; USACE and LAHD 2000, 1992) consists of deepening the Main Channel, East Basin and West Basin channels, Cerritos Channel, and turning basins to -53’ mean lower low water (MLLW) to accommodate modern container

¹ Construction of the Channel Deepening Project began in 2000 and continued through the baseline year of 2004. Although the baseline year for analyzing impacts of the Proposed Action is 2004, vessel traffic and vessel accident data is presented here to provide a background for recent accident trends.

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ships. The Channel Deepening Project also includes disposal of dredged materials in areas designated by the Port including the Southwest Slip Fill Site, Cabrillo Shallow Water Habitat Expansion Site, Pier 300 Expansion Site, Pier 400 Submerged Storage Site, and the LA-3 designated ocean disposal site (USACE 2004, 2003, 2002; USACE and LAHD 2000, 1992).

~~Dredging and disposal activities required to support~~ The Channel Deepening Project ~~are currently in progress~~ construction contractor has completed placement of dredge material within ~~the main navigational channels and connected basins.~~ all approved project disposal areas.

The COTP Public Notice No. 02-001 was developed to establish uniform procedures to facilitate the safe transit of vessels operating in the vicinity of the Federal Channel Deepening Project. The purpose of the COTP Public Notice is to increase the awareness of all harbor waterway users of the vessel safety risks associated with dredging operations in the Main Channel and ensure adequate communication between LA Deepening Constructors Joint Venture, dredge and vessel operators, and shoreside vessel traffic managers (POLA 2004). The COTP Public Notice vessel traffic procedures require mariners to notify the dredge or derrick barge operators fifteen minutes in advance to make necessary passing arrangements. Mariners are also required to contact the VTS prior to entering the Port to obtain information regarding any waterway restrictions resulting from the dredge's location or operations.

Consistent with COTP Public Notice No. 02-001 provisions, the following navigational procedures are routinely implemented within the Channel Deepening Project area to maintain adequate levels of safety for vessel navigation (POLA 2004):

- Dredge operators must issue security calls on the VTS prior to commencement of dredge operations and transit to disposal sites;
- The COTP issues "Daily Navigational Faxes" 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) that require COTP authorization;
- The USCG maintains and broadcasts local Notice to Mariners to provide pertinent transit information (i.e., temporary removal of aids to navigation);
- Slowest safe vessel speeds are required in work areas;
- Mariners are required to adhere to limited visibility guidelines; and
- The Port conducts monthly navigational safety meetings to address safety issues.

Compliance with all applicable vessel safety rules and regulations, including COTP Public Notice No. 02-001 has resulted in negligible constraints to vessel movements and/or vessel collisions or groundings resulting from current Channel Deepening Project operations. COTP

Public Notice No. 02-001 regulations will be applied to all dredging activities associated with the Proposed Action.

3.9.3 Applicable Regulations

Marine vessel operating rules and regulations outside the harbor entrances are dynamic and are continuously being updated by the USCG with input from the pilots, Ports of Los Angeles and Long Beach, shipping lines, and other involved entities. These regulations are published in the C.F.R. and United States (U.S.) Coast Pilot, as well as Port Tariffs.

Marine vessel transportation within the Port is governed in accordance with several local, state, and federal regulations, and international treaty requirements. Vessel traffic in the Port is regulated by policies established by the USCG. These policies are enforced by the USCG and Port of Los Angeles Police. Commercial vessel traffic is managed by the Port. Vessel transits are monitored carefully by the Vessel Traffic System and the Marine Exchange. The transits are controlled and guided by the Los Angeles Port Pilots, and transits follow the USCG Navigation Rules of the Road. Overall management is under the guidance of the USCG COTP.

The Harbor Safety Committee (Committee) is responsible for planning the safe navigation and operation of tankers, barges, and other vessels within San Pedro Bay. This Committee was created under the authority of Government Code Section 8670.23(a) that requires the Administrator of the Office of Oil Spill Prevention and Response to create a Harbor Safety Committee for the Los Angeles/Long Beach Harbor area. The Committee developed the Los Angeles/Long Beach Harbor Safety Plan (HSP) that contains operating procedures for vessels; some of the procedures are regulatory (local, state, federal), and others are non-regulatory “Standards of Care.” The HSP establishes vessel speed limits. In general, speeds within the Precautionary Area should not exceed 12 knots, and within the harbor; 6 knots. However, these speed restrictions do not preclude the master or pilot from adjusting speeds to avoid or mitigate unsafe conditions including weather, vessel maneuvering characteristics, traffic density, and construction/dredging activities (Harbor Safety Committee, 2007).

3.9.4 Methodology

Impacts on marine vessel transportation were assessed by determining the net increase in marine vessel traffic resulting from the Proposed Action compared to the ability of the Port to safely handle vessel traffic, as well as the Proposed Action’s potential to increase risks to vessel traffic caused by project-related activities during construction (dredging and sediment disposal activities). Equipment usage and scheduling needed to estimate proposed barge trips were

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developed from the experience of current and past Port dredging and disposal activities (Gahagan & Bryant Associates, 2007).

The CEQA and NEPA Baseline ~~area~~ for the Proposed Action comprises ~~a total of~~ approximately ~~11563~~ acres of open water areas at Berths 243-245, the Northwest Slip, and the CSWH; approximately 1,330 acres of open water at ocean disposal sites LA-2 and LA-3; and approximately 31 acres of land area at the ARSSS, which is currently used for soil storage.

3.9.5 Thresholds of Significance

The following significance criterion is based on the *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006). The Proposed Action would have a significant impact on vessel transportation if it:

VT-1 Results in a change in vessel traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks.

3.9.6 Impact Analysis and Mitigation Measures

3.9.6.1 Alternative 1: Port Development and Environmental Enhancement

Alternative 1, Port Development and Environmental Enhancement, would consist of disposing dredged material at the following disposal sites: Berths 243-245; Northwest Slip; CSWH Expansion Area; ~~Eelgrass Habitat Area~~; and LA-2.

A Confined Disposal Facility (CDF) would be created at the Berths 243-245 disposal site and would be covered with clean dredge material placed as surcharge to an elevation of approximately +30 feet MLLW, which would remain in place until a future geotechnical investigation/monitoring determines the fill has been consolidated. In the future if the Port decides to remove the surcharge material, an appropriate CEQA document would be prepared to analyze potential impacts of surcharge removal. Potential environmental impacts of future development of the new 5-acre land area at the Northwest Slip have been addressed in the Berth 136-147 Container Terminal Project Final EIS/EIR, which is summarized in Section 3.14.

Impact VT-1 **Alternative 1 would not potentially interfere with operation of designated vessel traffic lanes and impair the level of safety for vessels navigating the Main Channel, East Basin and West Basin areas, and Cerritos Channel.**

The Proposed Action would include transport of dredged material required to complete the Channel Deepening Project and maximize reuse of this dredged material within the Port for environmental enhancements and port development. Proposed dredging activities would occur

within the Port's existing federal channel and berthing areas. As described in Section 2.3.2, the remaining material to be dredged and disposed includes 1.025 mcy of material within channel navigation areas, approximately 0.675 mcy from berth deepening, and approximately 0.259 mcy to account for material bulking. Additionally, approximately 0.815 mcy of material that was previously dredged and temporarily placed as surcharge on the Southwest Slip at Berth 100 requires disposal.

Proposed dredge material disposal activities would require use of marine-based construction equipment (i.e., derrick/supply barges and cranes and/or dredge material scows) to support filling the Northwest Slip, expansion of the existing CSWH, ~~ereation of an Eelgrass Habitat Area in the CSWH,~~ transport of contaminated material to the CDF at Berths 243-245, and transporting rock material from Santa Catalina Island. Sediments would be placed into the CSWH Expansion Area ~~and Eelgrass Habitat Area~~ by clamshell and ~~or~~ pumped by pipeline from a hydraulic dredge ~~or hopper barges~~. A clamshell dredge would also be used to deepen waters within close proximity to berths to be consistent with the proposed -53 foot channel depth. Sediments from the clamshell dredge would be placed in a barge and transported by tugboat to the designated disposal area.

~~To Alternative 1 would transport the~~ approximately 1.16959 mcy of dredged material to a disposal site, it is assumed that a barge with 2,000 cy of capacity would have a 60 to 80 percent effective material loading capacity because between 20 percent (clamshell dredge sediments) and 40 percent (hydraulic dredge sediments) of the capacity would be taken up by water and material bulking, which is the volume of the material that expands upon excavation. This reduction in barge capacity would also accommodate the need to not load the barges beyond the extent to which they can fully contain the dredged material during transport to the disposal site. Therefore, ~~each barge would load between 1,200 and 1,600 cy of material~~ the various disposal sites using barges with capacities of 2,000 cy. Accordingly, ~~approximately 1,225 to 1,633~~ 580 barge trips would be required to transport ~~approximately 1.16959~~ mcy of dredged material. However, ~~as~~ Additionally, 408 barge trips would transport surcharge material ~~is dry, all barges transporting~~ surcharge materials from the Southwest Slip would have a material loading capacity of 2,000 cy; ~~to the CSWH.~~ Therefore, disposal of dredge and surcharge material would require ~~approximately 408 barge trips would be required to transport 0.815 mey of surcharge material from the Southwest Slip to the appropriate disposal sites. Therefore approximately 1,633 to 2,040~~ 988 barge trips would be required to dispose ~~approximately 1.959~~ mcy of dredge and surcharge material. In addition, ~~approximately 1,189~~ 911 barge trips would be required to transport rock material from Santa Catalina Island. ~~Therefore, approximately 2,822 to 3,229~~ Together, Alternative 1 would generate a total of approximately 1,896 barge trips would be required to complete Alternative 1.

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Marine-based construction equipment would be present within the project areas for approximately ~~1521~~ months. Approximately ~~2,822 to 3,229~~ 1,896 total barge trips (i.e., approximately ~~7.23.0~~ barge trips per day) would be required to support proposed construction activities within the Harbor. Barge trips required to transport rock material from Santa Catalina Island (911 trips) and dredge sediments to ocean disposal site LA-2 (400 trips) would increase traffic through Angel's Gate and within the approach corridors to the Precautionary Area; ~~however, the.~~ However, these additional 1, 311~~489~~ barge trips ~~that would occur over the 15 a 22-~~ month ~~(approximately 2.6 trips per day)~~ construction period ~~(approximately 2.2 trips per day)~~ and would not result in ~~represent~~ a significant ~~substantial~~ contribution to vessel congestion within these approach corridors.

The transport of dredged materials by barge could create in-water hazards to vessel traffic and increase the potential for accidents within the harbor. Although marine-based construction equipment would restrict vessel movement within the Port's existing federal channel and berthing areas, derrick and supply barges would be highly visible and relatively stationary, and would only move during transport to another location. These activities are routinely conducted in the Port and contractors performing in-water construction activities are subject to applicable rules and regulations stipulated in all LAHD contracts, including navigation hazard markings. Prior to activities that require anchoring vessels in the main navigation channels, the Port's standard vessel safety regulations require dredging contractors to acquire an Anchorage Waiver Permit from the USCG. An Anchorage Waiver Permit requires notifying the COTP of expected activities; providing official and ongoing notice to mariners during construction; developing a mooring plan; and marking equipment and debris for visibility. Compliance with Anchorage Waiver Permit requirements would ensure compliance with regulations governing the Port's Outer Harbor and main navigation channel areas.

~~Additionally, as the majority of proposed sediment~~ One disposal areas are located outside the ~~Outer Harbor area and main navigation channels, sediment disposal activities, including construction of sediment containment dikes, would not bring construction barges into close proximity to vessels entering and exiting the Port's Outer Harbor. Two disposal~~ locations ~~location,~~ the CSWH Expansion Area and the Eelgrass Habitat Area, are, ~~is~~ located in the Outer Harbor area. However, since no piers/wharfs are located adjacent to these sites, cargo vessels would not access these areas. As part of the Proposed Action, compliance with COTP Public Notice No. 02-001 vessel traffic procedures would be required, ensuring adequate communication between dredging contractors, dredge and vessel operators, and shoreside vessel traffic managers. As standard safety precautions would be utilized by all contractors, the short-

term presence of supply barges/support boats would not substantially impact marine vessel safety within the main channels and connected basin areas.

~~Construction of the Eelgrass Habitat Area would result in construction of a rock dike to elevation +12 feet MLLW to +14 feet MLLW that could present a potential hazard to recreational boaters. However, because the dike surrounding the Eelgrass Habitat Area would be marked with navigational aids (buoys and/or lights) to alert boaters to its presence, this potential hazard would be reduced, and impacts would be less than significant.~~

Impact Determination

Although the Proposed Action would require dredging and sediment disposal activities within the Port, compliance with all applicable rules and regulations stipulated in all LAHD contracts, USCG Anchorage Waiver Permit requirements, and COTP Public Notice No. 02-001 vessel traffic procedures is currently required by all contracts with the LAHD. As standard safety precautions would be utilized by all contractors, the presence of supply/dredge material disposal barges would not substantially impact marine vessel safety within the main channels and berthing areas. Accordingly, proposed in-water construction equipment would not interfere with existing operations within the Port's existing federal channel and berthing areas. ~~Additionally, potential hazards presented to recreational boaters by construction of the Eelgrass Habitat Area dike would be substantially reduced by the use of navigational aids to alert boaters to its presence.~~ Therefore, impacts on marine vessel safety under Alternative 1 would be less than significant.

Mitigation Measures. Under Alternative 1, impacts on marine vessel transportation would be less than significant; therefore, no mitigation measures are required.

Residual Impacts. Impacts on marine vessel transportation would be less than significant.

3.9.6.2 Alternative 2: Environmental Enhancement and Ocean Disposal

Alternative 2, Environmental Enhancement and Ocean Disposal, consists of placing dredged material at the following locations: CSWH Expansion Area; ~~Eelgrass Habitat Area; Anchorage Road Soil Storage Site (ARSSS); and the LA-2 and LA-3 ocean disposal sites.~~ No new land area would be created as a result of this alternative.

Impact VT-1 **Alternative 2 would not interfere with operation of designated vessel traffic lanes and impair the level of safety for vessels navigating the Main Channel, East Basin and West Basin areas, and Cerritos Channel.**

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Under Alternative 2 dredged material would be placed at the CSWH Expansion Area to accommodate up to 50 acres of shallow water habitat and at the Eelgrass Habitat Area to create a 40-acre eelgrass habitat restoration site. Sediments would be placed at the CSWH Expansion and Eelgrass Habitat Area from barges by clamshell dredge and hydraulic pumping.

Approximately ~~0.80442~~ 0.80442 mcy and ~~0.416~~ 0.416 mcy of clamshell dredged material would be disposed at LA-2; these sediments would be clamshelled into barges and then transported by tugboat barge to the LA-2 and disposed directly to LA-32 sites, respectively, for ocean disposal. In addition, approximately 0.080 mcy of contaminated material would be disposed at the existing ARSSS. Sediments would be placed in barges by clamshell dredge and transported via tugboat to an offloading site at Shore Road. At the offloading site, sediments would be removed from the barges by clamshell and placed in trucks for transport to the disposal site.

Alternative 2 would transport approximately 1.16 mcy of dredged material to the various disposal sites with the use of barges with capacities of 2,000 cy. Accordingly, about 580 barge trips would transport 1.16 mcy of dredged material. Additionally, 408 barge trips would transport surcharge material from the Southwest Slip to the CSWH. Therefore, disposal of dredge and surcharge material would require about 988 barge trips. In addition, about 412 barge trips would transport rock material from Santa Catalina Island. Together, Alternative 2 would generate a total of about 1,470 barge trips.

Marine-based construction equipment would be present within the project areas for approximately ~~1715~~ 1715 months of the overall 22-month construction period. Approximately 1,633 to 2,040 barge trips would be required to dispose approximately ~~1.959~~ 1.959 mcy of dredge and surcharge material for Alternative 2. Additionally, this alternative would require approximately 880 barge trips from Santa Catalina Island (based on 26% less rock being required for dike construction, as shown in Table 2-4 in Section 2.6). Therefore, ~~2,513 to 2,920~~ 2,513 to 2,920 total barge trips (i.e., approximately ~~5.7~~ 3.3 barge trips per day) would be required to support proposed construction activities for Alternative 2. Of those trips, approximately 1,143 within the Harbor. Barge trips required to transport rock material from Santa Catalina Island (411 trips) and dredge sediments to ~~1,230~~ ocean disposal sites LA-2 and LA-3 (608 trips (i.e. approximately 2.4 trips per day) would be required to travel increase traffic through Angel's Gate and within the approach corridors to the Precautionary Area (approximately 880 barge trips to transport rocks from Santa Catalina Island and approximately 263 to 350 barge trips to transport approximately 0.420 mcy of dredge material to LA-2). The addition of approximately 2.4 trips per day. However, these additional 1,019 barge trips would occur over a 9.5-month construction period (approximately 3.6 trips per day) and would not result in represent a significant substantial contribution to vessel congestion within ~~the~~ these approach corridors.

The transport of dredged materials by barge could create in-water hazards to vessel traffic and increase the potential for accidents with the harbor. Although marine-based construction equipment would restrict vessel movement within the Port's existing federal channel and berthing areas, derrick and supply barges would be highly visible and relatively stationary, and would only move during transport to another location. These activities are routinely conducted in the Port and contractors performing in-water construction activities are subject to applicable rules and regulations stipulated in all LAHD contracts, including navigation hazard markings. Prior to activities that require anchoring vessels in the main navigation channels, the Port's standard vessel safety regulations require dredging contractors to acquire an Anchorage Waiver Permit from the USCG. An Anchorage Waiver Permit requires notifying the COTP of expected activities; providing official and ongoing notice to mariners during construction; developing a mooring plan; and marking equipment and debris for visibility. Compliance with Anchorage Waiver Permit requirements would ensure compliance with regulations governing the Port's Outer Harbor and main navigation channel areas.

~~Sediment~~One disposal activities, including construction of the containment dike at location, the CSWH Expansion Area, would not bring construction barges into close proximity to vessels entering and exiting the Port's Inner Harbor. Two disposal locations, the CSWH Expansion Area and the Eelgrass Habitat Area, are located in the Outer Harbor area. However, since no piers/wharfs are located adjacent to these sites, cargo vessels ~~do~~would not access these areas. As part of the ~~Proposed Action~~ Alternative 2, compliance with COTP Public Notice No. 02-001 vessel traffic procedures would be required, ensuring adequate communication between dredging contractors, dredge and vessel operators, and shoreside vessel traffic managers. As standard safety precautions would be utilized by all contractors, the short-term presence of supply barges/support boats would not substantially impact marine vessel safety within the main channels and connected basin areas.

~~Construction of the Eelgrass Habitat Area would result in construction of a rock dike to elevation +12 feet MLLW to +14 feet MLLW that could present a potential hazard to recreational boaters. However, because the dike surrounding the Eelgrass Habitat Area would be marked with navigational aids (buoys and/or lights) to alert boaters to its presence, this potential hazard would be reduced, and impacts would be less than significant.~~

Impact Determination

Although Alternative 2 would require dredging and sediment disposal activities within the Port, compliance with all applicable rules and regulations stipulated in all LAHD contracts, USCG Anchorage Waiver Permit requirements, and COTP Public Notice No. 02-001 vessel traffic procedures is currently required by all contracts with the LAHD. As standard safety precautions

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would be utilized by all contractors, the presence of supply barges/support boats would not substantially impact marine vessel safety within the main channels and berthing areas. Although ~~two of the proposed sediment disposal areas (i.e., CSWH Expansion Area and Eelgrass Habitat Area) are~~ located in the Outer Harbor area, no piers/wharfs are located adjacent to ~~these sites,~~ this site and cargo vessels would not access ~~these~~ this areas. Accordingly, proposed in-water construction equipment would not interfere with existing operations within the Port's existing federal channel and berthing areas. ~~Additionally, as discussed above for Alternative 1, potential hazards presented to recreational boaters by construction of the Eelgrass Habitat Area dike would be substantially reduced by the use of navigational aids to alert boaters to its presence.~~ Therefore, impacts on marine vessel safety under Alternative 2 would be less than significant.

Mitigation Measures. Under Alternative 2, impacts on marine vessel transportation would be less than significant; therefore, no mitigation measures are required.

Residual Impacts. Impacts on marine vessel transportation would be less than significant.

3.9.6.3 Alternative 3: No Action

Under the No Action Alternative, no construction activities related to the Proposed Action would occur. No new landfills or new shallow water areas would be created. Since all approved disposal sites have been completed, no further dredging would take place and the Channel Deepening Project would not be completed. Existing environmental conditions at the Proposed Action disposal sites would continue to exist. Approximately 1.025 mcy of material within the federally-authorized channel and 0.675 mcy of berth dredging would remain to be dredged and disposed. In addition the 0.815 mcy of surcharge on the Southwest Slip Area would remain to be removed and disposed. Additionally, the 0.080 mcy of contaminated dredge material would remain within the Main Channel of the Port.

Impact VT-1. Alternative 3 would not interfere with operation of designated vessel traffic lanes and impair the level of safety for vessels navigating the Main Channel, East Basin and West Basin areas, and Cerritos Channel.

Under this alternative, no sediment disposal or development associated with the Proposed Action would occur. Therefore, larger modern container ships would not be able to navigate and access the container terminals along the Main Channel, which would likely increase the total number of ships and the potential for conflicts between vessels navigating within Los Angeles Harbor. Although no construction or operational impacts on marine vessel safety would occur, Alternative 3 would not include the long-term beneficial impacts on marine vessel transportation

associated with deepening navigation channels and upgrading existing wharf infrastructure to accommodate modern container ships.

Impact Determination

Under Alternative 3, No Action, the absence of beneficial impacts of allowing modern container ships to access the Main Channel would likely increase the potential for conflicts within the harbor. However compliance with all applicable rules and regulations, including, but not limited to, COTP Public Notice No. 02-001 vessel traffic procedures, a USCG Anchorage Waiver Permit, flagging, identification policies, and hours of operation would ensure that impacts to marine vessel transportation would be less than significant.

Mitigation Measures. Under Alternative 3, no impacts on marine vessel transportation would occur; therefore, no mitigation measures are required.

Residual Impacts. No impacts on marine vessel transportation would occur.

3.9.7 Impact Summary

This section summarizes the conclusions of the impact analysis presented above in Section 3.9.6. Table 3.9-3 lists each impact identified for each alternative of the Proposed Action, along with the significance of each impact.

Table 3.9-3 Impact Summary

Impact	Alternative 1	Alternative 2	Alternative 3
VT-1. Interference would occur for operation of designated vessel traffic lanes and impair the level of safety for vessels navigating the Main Channel, East Basin and West Basin areas, and Cerritos Channel.	LTS	LTS	LTS

S&U = Significant and Unavoidable SM = Significant but Mitigated
 LTS = Less than Significant NI = No Impact

As described above in Section 3.9.6, implementation of Alternatives 1 or 2 would have less than significant impacts on marine vessel transportation due to the presence of construction equipment within the harbor. ~~Additionally, potential hazards presented to recreation boaters by construction of the Eelgrass Habitat Area dike under Alternative 1 and Alternative 2 would be less than significant because navigational aids would be used to alert boaters to its presence.~~ Alternative 3, No Action, would result in less than significant impacts on marine vessel transportation due to increased traffic within the Port.

3.9.8 Mitigation Measures

No significant impacts on marine vessel transportation would occur; therefore, no mitigation measures are required.

3.9.9 Significant Unavoidable Adverse Impacts

No significant unavoidable impacts would occur.

3.9.10 Mitigation Monitoring Plan

Since no mitigation measures are required for marine vessel transportation, a mitigation monitoring plan is not required.