Chapter 1
Introduction

CHAPTER SUMMARY

The proposed Project is the improvement and expansion of the existing Berths 302-306 American President Lines (APL) Container Terminal (or "proposed Project") located on Terminal Island within the Port of Los Angeles (Port). Chapter 1 is an overview of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) processes and the Port as a whole, including an overview of goods movement. Chapter 2 presents a description of the proposed Project and alternatives to be analyzed, using the methodologies described in Chapter 3.

Chapter 1 provides the following:

- A brief summary of the key proposed Project features and elements;
- An overview of the goods movement chain;
- A general description of container terminal operations; and
- A summary of growth projection planning for container throughput in the San Pedro Bay Port Complex (i.e., Ports of Los Angeles and Long Beach).

This chapter also provides an overview of NEPA and CEQA, which respectively require the preparation of an EIS or EIR for projects that could significantly affect the environment. In addition, Chapter 1 contains the following environmental information:

- A summary of the scope and content of this EIS/EIR;
- A description of how the United States Army Corps of Engineers (USACE) and the Los Angeles Harbor Department (LAHD) would use the EIS/EIR;
- A summary of the key principles that were used to guide preparation of this EIS/EIR;
- A description of environmental initiatives currently underway to improve the Port setting; and
- A summary of public comments and concerns raised during the scoping process.

1.1 Introduction

The proposed Project, Berths 302-306 [APL] Container Terminal Project (hereafter referred to as the "proposed Project"), would expand the existing container terminal that is located in an industrial area of the Fish Harbor region of Terminal Island, within the Port. The proposed Project is the improvement and expansion of an existing container terminal that would facilitate the transfer of shipping containers between ocean-going vessels and ground transportation modes such as trucks and trains.

The proposed Project would require a permit from the United States Army Corps of Engineers (USACE), and approvals from the Los Angeles Board of Harbor Commissioners (Harbor Commission). Prior to issuance of permits or other project approvals, each of these decision-making bodies must consider the proposed Project's environmental effects, which in this case are identified in an EIS prepared by the USACE and an EIR prepared by Los Angeles Harbor Department (LAHD). For the proposed Project, a joint EIS/EIR has been prepared to streamline the decision-making processes.

This Draft Environmental Impact Statement /Environmental Impact Report (EIS/EIR) has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] 4341 *et seq*.), and in conformance with the Council for Environmental Quality (CEQ) Guidelines and the USACE NEPA Implementing Regulations (33 Code of Federal Regulations [CFR] Parts 230 and 325). The document also fulfills the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 *et seq*.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 *et seq*.). The USACE is the NEPA lead agency for this proposed Project, and the LAHD is the CEQA lead agency.

The proposed Project and alternatives are described in detail in Chapter 2. In this document, the CEQA term "proposed Project" is used throughout this document, rather than the NEPA term "proposed Action," because the proposed Project encompasses the broadest set of project components. The CEQA "proposed Project" includes all Project elements described in Chapter 2, Section 2.5.1 of this document; whereas, the NEPA "Proposed Action" (or "Federal Action") includes only those elements that require federal approval, as described in Section 2.7 of this document.

Chapter 3 of this Draft EIS/EIR describes the affected environmental resources and evaluates the potential impacts to those resources likely to occur as a result of building and operating the proposed Project and alternatives. This Draft EIS/EIR will be used to inform decision-makers and the public about the environmental effects of the proposed waterside, terminal, and transportation improvements to Berths 302-306, which constitute the proposed Project.

1.2 Background

1.2.1 Project Location and Brief Project Overview

The LAHD operates the Port under the legal mandates of the Port of Los Angeles Tidelands Trust (Los Angeles City Charter, Article VI, Section 601) and the California Coastal Act (PRC Division 20 Section 30700 *et seq*.), which identify the Port and its

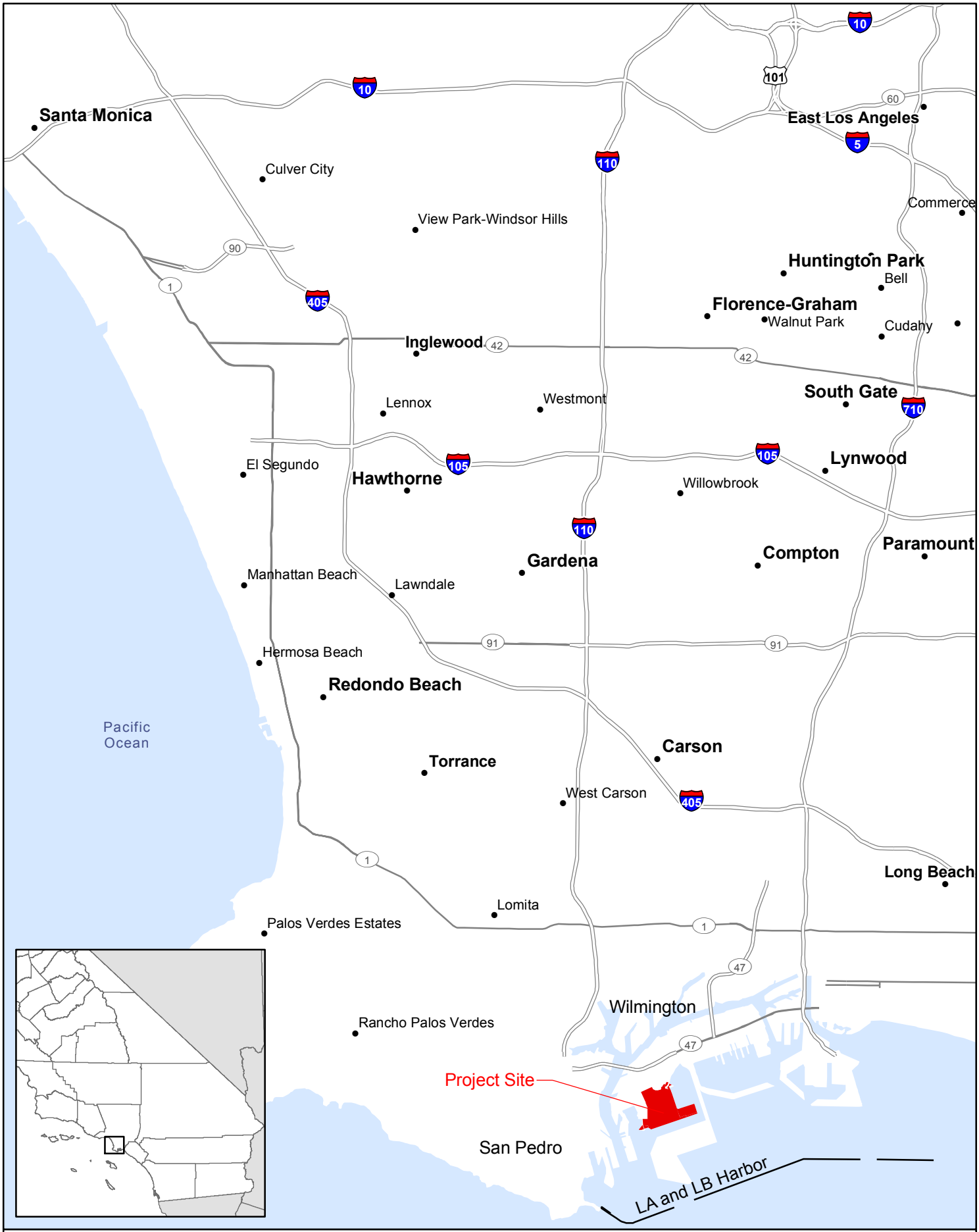
facilities as a primary economic and coastal resource of the State of California and an essential element of the national maritime industry for the promotion of commerce, navigation, fisheries, and Harbor operations. Activities should be water dependent and the LAHD must give highest priority to navigation, shipping, and necessary support and access facilities to accommodate the demands of foreign and domestic waterborne commerce. The LAHD is chartered to develop and operate the Port to benefit maritime uses, and it functions as a landlord by leasing Port properties to more than 300 tenants.

The location of the proposed Project is shown in Figure 1-1. The site is located at Pier 300 on Terminal Island, within an industrial area in the Fish Harbor region of the Port. The site is generally bounded on the north by Terminal Way, the Pier 300 Shallow Water Habitat on the east, Earle Street on the west, and the Pier 300 Channel on the south. Land uses in the Project vicinity include the Terminal Island Water Reclamation Plant (TIWRP) and the vacant Los Angeles Export Terminal (LAXT) facility.

Currently Eagle Marine Services, Ltd. (EMS) operates an approximately 261-acre container terminal at Berths 302-305 under LAHD Permit No. 733. In addition, EMS conducts container terminal operations on approximately 30 acres of adjacent backlands under a month-to-month space assignment for a total of about 291 overall acres. The liner companies American President Lines, Ltd. and APL Co. Pte Ltd., together doing business as "APL", are the main EMS shipping customers. EMS is a wholly owned subsidiary of American President Lines, Ltd. For purpose of this EIS/EIR, therefore, the terminal is known as the "APL Terminal."

The proposed Project includes redeveloping and expanding the existing container terminal at Berths 302-305 on Terminal Island in the Port of Los Angeles. In general, the proposed Project would improve the existing terminal, extend the existing concrete wharf by 1,250 linear feet (lf) to add a new berth (Berth 306), add up to 12 new cranes to the Berths 302-305 and Berth 306, and expand the existing container terminal by approximately 56 acres (see Table 1-1). The proposed Project also involves dredging at Berth 306 and beneficial reuse and/or disposal of dredge materials at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat). If these options are unavailable or impracticable, an existing ocean disposal site could be considered (i.e., LA-2).

The proposed Project would also include an amendment to the existing lease (LAHD Permit No. 733) between LAHD and EMS. The current lease duration would remain unchanged (1998 to 2027), but the lease would be amended to include the additional 56 acres and a new berth. At completion of Project construction and delivery, EMS would operate approximately 317 acres under LAHD Permit No. 733, plus the 30 acres that it operates under the current space assignment for a total of 347 acres as shown in Table 1-1.



Port of Los Angeles
Berths 302 - 306 [APL]
Container Terminal Project
Regional Location Map
Figure 1-1

Table 1-1: Current and Proposed Project Elements for Berths 302-306

	Current Conditions *(March 2009)*	**Proposed Project**
LAHD Permit No. 733 (backland acres)	261	317
Space Assignment (backland acres)	30	30
Berth Assignment	Berths 302-305	Berths 302-306
Wharf length	4,000 lf	5,250 lf
Cranes	12	up to 24

The major elements of the proposed Project include:

- Improving the existing terminal, including modification of gates, processing areas, and lanes; and improvement/installation of various on-site facilities;[1]
- Adding approximately 4 acres of wharf deck to the terminal's acreage by constructing 1,250 lf of new wharf at Berth 306;
- Improving and adding approximately 41 acres of already constructed but unimproved fill behind Berths 305-306 to the terminal backlands. This fill was created in 2005 with approximately 1.6 million cubic yards (cy) of dredge material from the joint USACE/Port of Los Angeles Channel Deepening Project (USACE and LAHD, 2000);[2]
- Infrastructure improvements associated with the redevelopment of the APL Terminal backlands and the improvement of the Berth 306 backlands that could support traditional operations, electric equipment operations, as well as potentially automated operations;
- Redeveloping and adding approximately 9 acres of existing land behind Berth 301 to the terminal (EMS would operate the backlands behind Berth 301 but would not use the wharf at Berth 301 as it is not currently configured for container operations);
- Redeveloping and adding 2 acres of existing land at the northeast corner of the main gate;
- Installing up to 12 new cranes (4 new cranes along Berths 302-305 and 8 new cranes along the proposed Berth 306) for a total of 24 cranes;
- Installation of Alternative Maritime Power (AMP) along the new wharf at Berth 306; and

[1] Installation of Alternative Marine Power (AMP) at Berths 302-305 (existing wharf) is required to comply with existing California Air Resources Board requirements that must be met with or without the proposed Project; therefore, AMP at Berths 302 -305 is considered a related project.

[2] The 41-acre fill area was evaluated in the joint USACE/LAHD Supplemental Draft EIS/EIR (April 6, 2000), the May 2000 final Supplemental Environmental Assessment for the Pier 400 North Channel Deepening Project and the CEQA Addendum for Port Master Plan Amendment No. 21.

- Dredging the Pier 300 Channel along the new Berth 306 (approximately 20,000 cy), which is at various depths in the low fifties, to a depth of -55 ft MLLW plus two ft of overdredge. Depending upon the quality of the dredge sediments and site availability, dredged material would be beneficially reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat). If these options are unavailable or impracticable, an existing ocean disposal site could be considered (i.e., LA-2).

Chapter 2, Project Description, provides a more detailed description of proposed Project components as well as alternatives. After completion of the proposed Project, throughput capacity[3] at the APL Terminal is projected to increase from approximately 1.1 million twenty-foot equivalent units[4] (TEUs) in 2008 to approximately 3.2 million TEUs by 2027.

1.2.2 Goods Movement Overview

The proposed Project is part of a goods movement chain; a complex international system that moves goods from their points of production to consumers by different modes of transportation (ship, rail, and truck). As it relates to the Ports of Los Angeles and Long Beach ("Ports", also referred to as the San Pedro Bay Port Complex or Port Complex), the points of production generally are in foreign countries, while consumers are located in the United States.[5] The goods movement chain is a coordinated process that includes shippers, shipping lines, third-party logistics providers, stevedoring companies, port cargo terminal operators, labor, truckers, railroads, and distribution centers. Manufacturers, retailers, or third-party logistics firms often contract with shipping lines to move goods from origin to destination. Shipping lines own and lease container equipment, and typically enter into agreements with trucking companies and railroads for the transport of international cargo between the manufacturers and retailers and the marine terminals. The ability to move the same container between ships, trucks, and rail is called intermodal transport and is accomplished through the use of standardized containers that can be easily moved between modes. Figure 1-2 illustrates the flow of containers through the various stages of the goods movement chain.

***Key* Definitions**

Goods Movement Chain = A complex international system that moves goods from their points of production to consumers by different modes of transportation (ship, rail, and truck).

Stevedore = The entity that unloads and loads a ship. At the Port of Los Angeles, the terminal operator usually operates the stevedoring operations along with the terminal operation.

Intermodal Transport = The ability to move the same container between ships, trucks, and rail.

[3] The terminal capacity refers to the theoretical maximum amount of throughput that can move through the terminal based on the physical upgrades and all known operational changes. The terminal is likely to operate at a lower level but the analysis in this EIS/EIR assumes the maximum capacity to ensure all potential environmental impacts are identified and mitigated if necessary.

[4] A TEU is a standardized measure for a container. When first developed, shipping containers were generally 20 feet long or 1 TEU. Currently, most containers are 40 feet long or 2 TEUs. Please see page 7 for more information.

[5] Los Angeles was a major gateway for imports, with inbound shipments accounting for 86 percent of the value of the freight it handled in 2008.

Section 1.2.2.1 describes how a container terminal operates. The sections that follow that discussion describe key links in the chain of goods movements, and include discussions of container ships, truck transport, and rail transport.

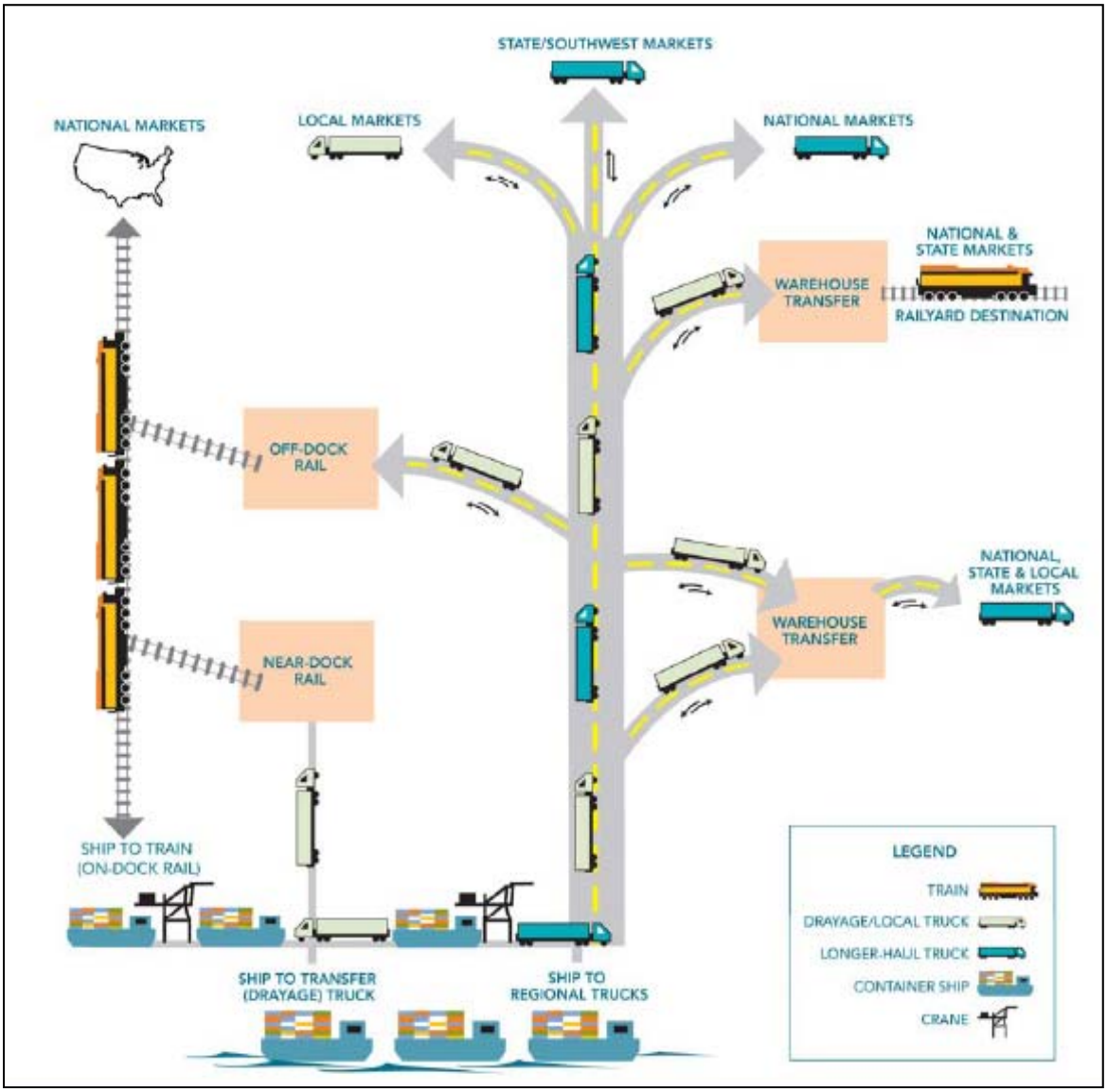


Figure 1-2: Goods Movement Chain: Transportation Distribution

The majority of goods coming into the Ports arrive in shipping containers transported on container ships (Starcrest, 2008). The existing APL Terminal accommodates vessels transporting shipping containers and does not handle other vessels that transport non-containerized materials, such as automobiles or bulk cargo.

Container ships arrive at and depart from the Ports via designated shipping lanes (northern or southern approaches), typically with the assistance of a tugboat. Container ships are generally between 700 ft to more than 1,000 ft long, but are described by the number of TEUs they can carry (between a few thousand to more than 10,000 TEUs).

A TEU is a measure of containerized cargo capacity equal to one standard 20-foot [long] by 8-foot [wide] by 8-foot 6-inch [height] shipping container. Presently, most maritime containers are 40 feet (ft) long or two TEUs. To account for the ratio between 20- and 40-foot boxes (and to account for a small number of boxes that are between 45 and 48-ft long), a factor is generally applied to convert TEUs to the actual number of containers. Currently Port-wide, this factor is approximately 1.85, meaning one container equals 1.85 TEUs. For example, a ship holding 2,703 containers would be carrying 5,000 TEUs after application of the conversion factor (or 2,703 x 1.85). Containers are also counted in "lifts" (as in a container being lifted onto or off a train or vessel by an "A" frame crane). A lift is the unit of an individual container of any size. The Port-wide conversion from lift to TEU is also based on the conversion factor 1.85.

***Key* Definitions**

TEU = Twenty-foot Equivalent Unit = One 20-foot-long x 8-foot-wide x 8-foot-6-inch-high shipping container.

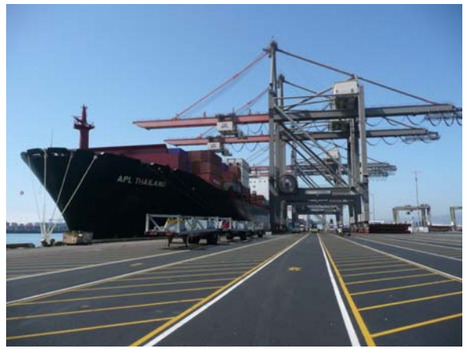
Lift = Unit of individual container of any size.

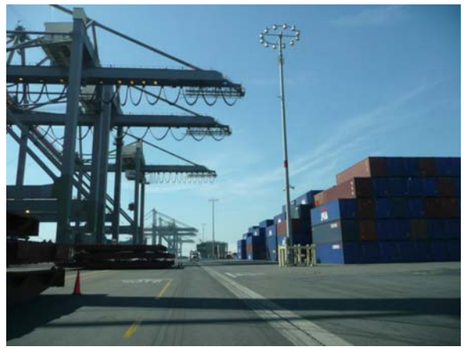
One Container or Lift = 1.85 TEUs (Port-wide); 1.75 APL Terminal

At the APL Terminal, the conversion factor from TEU to container or from TEU to lift is approximately 1.75. The 0.10 difference from Port-wide metric exists because EMS's customers use a slightly smaller proportion of 40-foot containers verses 20-foot containers; thereby, reducing the conversion factor. The 1.75 factor has been used to model baseline conditions and 1.85 has been is used to project future scenarios within this Draft EIS/EIR. Currently (2008-2009), the container ship fleet calling at the APL Terminal averages approximately 5,575 TEUs per container ship (EMS, 2009). As is detailed in the following section (Section 1.2.2.1), container ships are moored at the terminal and the container terminal operator is responsible for hiring labor to unload the ships, storing containers for a brief period of time in an area known as the backlands, and coordinating with trucking and rail operators to deliver containers to their final destinations.

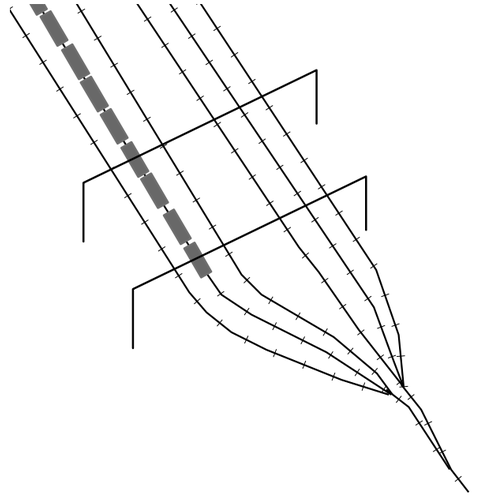
1.2.2.1 Container Terminal Cargo Transit

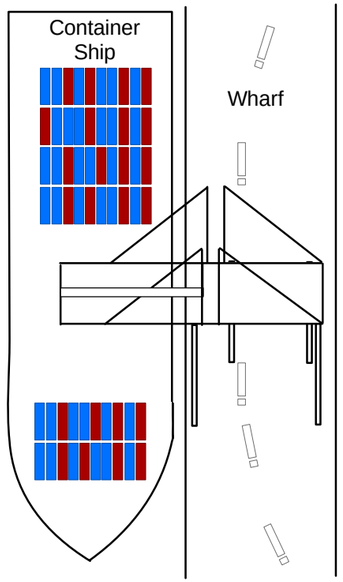
A modern marine container terminal is a facility that integrates several different physical components and operational processes to load and unload oceangoing container ships and to move cargo through the terminal to and from trucks and trains in as cost-effective manner as possible. The physical components of a container terminal consist of container ships, berths/wharves (docks), cranes, backland storage areas (container yard), entrance and exit gates, and maintenance and administrative buildings (see Figure 1-3). The existing APL Terminal also includes an on-dock railyard. The operational processes for





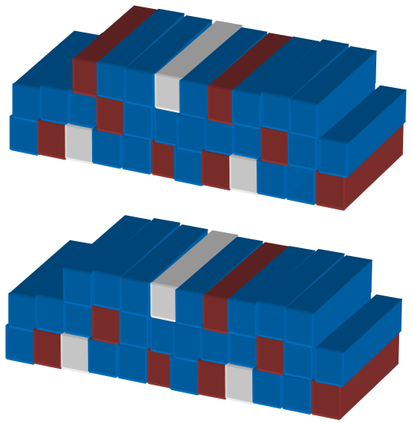
Containers loaded/unloaded to train cars at on-dock railyard



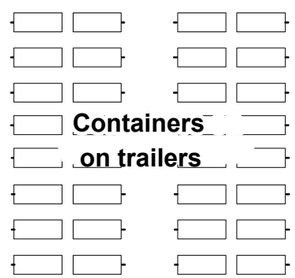


A-frame cranes transfer containers between ship and yard tractors for transport to backlands or on-dock railyard

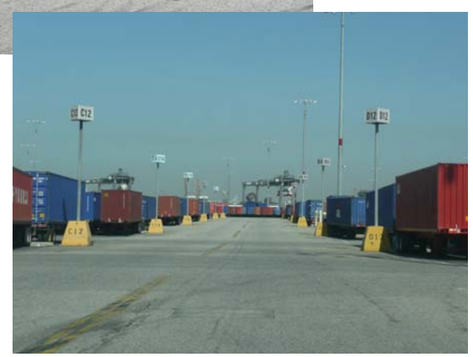
Stacked containers stored in backlands



Containers leave the facilty via rail (regional) or by truck (local or delivery to off-dock railyard)



Containers on trailers



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

CDM

Figure 1-3

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the terminal include shipping, stevedoring (loading/unloading ships), container storage and management, in-terminal drayage (hauling), trucking to off-site locations such as warehouses and off-dock railyards, and on-dock rail operations if applicable.

At the Port, LAHD develops and owns major terminal container terminal infrastructure (wharves, container storage yard, and buildings), and leases a terminal to a terminal operator and/or shipping company for operation. The container terminal is operated by a terminal operator, which is often a separate, yet affiliated, company from the shipping line. Many terminal operators are affiliated with shipping lines however, and these lines serve as the terminal's primary customers. For example, EMS is a wholly owned subsidiary of American President Lines, Ltd. and APL is assumed to remain as the primary shipping line that would be served by the proposed Project. Terminal operators may also contract with invitee shipping lines to fill extra berth space. These "third-party invitee" shipping lines traditionally look for longer-term terminal and stevedoring agreements to secure their positions in the market place for at least five years. The invitee shipping lines might make agreements with the terminal operator for as little as six months because terminal operators are not always able to offer longer-term agreements due to requirements to serve parent company core businesses.

Under the anticipated Project approval, the APL Terminal would continue to be operated by EMS under a modified lease (LAHD Permit No. 733). EMS would own and operate all the terminal equipment (such as yard tractors, toppicks, and sidepicks), including the wharf gantry cranes (an example is shown in Figure 1-3), which directly affect terminal productivity and require regular maintenance.

While the terminal operator is largely responsible for terminal operations, different parts of the terminal operation are handled by other entities. For example, shipping lines own and lease container equipment, manage contracts with tug companies, and manage railroad agreements for international cargo. Shipping lines, often with the involvement of manufacturers, retailers and others, also may arrange contracts with trucking companies to move loaded containers to and from the Port Complex. Railroad agreements for international cargo are also usually handled by the shipping lines. The terminal operator orders longshore labor through the Pacific Maritime Association (PMA), the employer. The PMA contracts with the International Longshore and Warehouse Union (ILWU) and negotiates, on a periodic basis, with the ILWU to determine labor rates, working conditions, safety measures, and various operational protocols. The existing contract is a six year agreement.

As stated earlier, shipping lines usually handle agreements with the rail companies for hauling cargo to its ultimate destination; however, the rail companies often subcontract switching activities to another provider. Pacific Harbor Line (PHL) is a rail switching company that is responsible for building the trains that the main line rail companies will transport outside the Port Complex.

1.2.2.1.1 Terminal Operations

Operationally, imported containers arrive and exported containers depart from, the Port via container ships, typically with the assistance of one tugboat. When the vessel arrives, most of the export cargo to be loaded already is stacked in the yard. Gangs (groups) of longshore workers, contracted by EMS for the APL Terminal, work night shifts and day shifts to unload and load the ship using A-Frame cranes, as shown in Figure 1-3.

Dockside crane operators lift cargo containers to and from the ships on and off specialized trailers pulled by yard tractors. Typically, cranes can transfer 25 to 40 containers per hour. The cranes have specialized equipment including anti-sway devices, lighting, and adjustable "spreaders" (cargo hooks) that allow attachment to the various container sizes. The number of cranes operating simultaneously on one ship can vary from 1 to 10, depending upon the size of the ship, the number of vessels at berth, crane gauge (distance between crane legs), and the availability of cranes.

The ships typically "hotel" or remain docked at the terminal for approximately 36 hours, or 1.5 days, but the largest ships might stay as long as three days. While at berth, the main propulsion engine of the ship is shut down, but one or more large diesel auxiliary engines run continuously to provide electrical power for ship functions, including supplying power to refrigerated containers. A boiler to heat the fuel for the ship also runs while the ship is at berth to ensure fuel is kept at a constant viscosity. In future years, however, more ships will make use of AMP, in which a ship uses shore-supplied electricity for its power needs in lieu of running the auxiliary diesel engines. This alternative power source allows a fleet to reduce its air emissions by substantial amounts, even when taking into account the emissions associated with electricity generation. Beginning in 2014, the California Air Resources Board (CARB) will begin mandating that shipping company fleets ensure a certain percentage of calling ships use AMP, and abide by certain operational constraints. More detail on these regulations is provided in Table 2-5 in Chapter 2, Project Description, and Section 1.7.2.1 of this chapter, as well as in Chapter 3.2, Air Quality, Meteorology, and Greenhouse Gases.

Once containers have been off-loaded from the ship or received through the gates on trucks and trains, the containers are stored and moved around the backlands area of the terminal (the storage yards) using cargo-handling equipment that may include electric- or diesel-powered rail-mount gantry cranes (RMGs), diesel-powered rubber tire gantry cranes (RTGs), and/or diesel-powered sidepicks, toppicks, and yard tractors. In future years, stricter standards will apply to the emissions generated by these equipment types. The more restrictive future standards are used for the environmental analyses in Chapter 3.2, Air Quality, Meteorology, and Greenhouse Gases.

Through the use of this handling equipment, containers are stored using one of three systems: 1) a grounded or "stacked" system (where containers are stacked on top of each other, up to five containers high, with the bottom container placed directly on the ground); 2) a chassis (trailer) or "wheeled" system (where the containers are stored directly on one chassis [or trailer], not stacked); or more usually, 3) a combination grounded/chassis system. The APL Terminal uses a combination grounded/chassis system.

As shown in Figure 1-3, the import cargo is shifted to stacks or to wheeled trailer locations in the container yard (backlands). Some import containers are shifted to stacks near the on-dock railyard to be loaded onto departing trains. Others are delivered to trucks that arrive to pick up the cargo. As shown in Figure 1-3, cargo containers loaded on trucks are then processed out of the terminal at the exit gate.

Imported containers that leave the terminal by truck are hauled to off-Port railyards, such as the Union Pacific's (UP) Intermodal Container Transfer Facility (ICTF) or the Burlington Northern-Santa Fe's (BNSF) Hobart Yard. Import containers are also transported to transloading warehouses; or directly to final destinations, such as a retailer

or distribution warehouse. Imported containers can also be moved through the existing on-dock railyard at the APL Terminal, which would continue operations under the proposed Project.

Containers destined for export typically arrive at the gate by truck a day to a week prior to the scheduled departure of the ship on which the containers are booked to travel. The waiting containers are stored in the terminal prior to being loaded onto the ship. Export containers from distant locations typically arrive at the terminal via rail and are either stored, parked as wheeled cargo, or grounded by toppicks or RTG cranes. The APL Terminal, however, does not use RTG cranes for stacking grounded containers, but relies on toppicks. Intermodal movement, including factors governing the distribution patterns and mode choices, is discussed in greater detail below in Section 1.2.2.2.

Meanwhile, containers arriving at on-dock facilities typically are transferred by toppicks or RMGs from the rail cars to chassis hauled by yard tractors. The tractors then drive to preplanned locations in the yard where the container is either is lifted to grounded locations by toppicks or RTGs or parked on the chassis. The APL Terminal, however, does not use toppicks for discharging containers from the rail cars, but relies on electric RMG cranes. Thereafter, the containers at the APL Terminal are either parked on wheeled trailers or grounded by toppicks (and not RTG cranes).

The number of containers that pass through a terminal is called its throughput. Throughput is literally the movement of containers over time and is a dynamic number that is often measured in annual terms to avoid distortions caused by seasonal fluctuations (i.e. more goods are moved at certain times of the year, such as the Christmas holidays and back to school shopping). Each container terminal has an annual "throughput capacity," i.e., the anticipated high end of the realistic operating range of containers the terminal can handle in a year. As described in Section 1.2.4.2, the throughput capacity of a terminal is based on site-specific physical and operational parameters. That number is a function of terminal configuration, berth length, backland area, the ratio of berth length to backland area, and the number and types of equipment in use. Achieving the optimal throughput capacity of terminals requires that none of the various components of a terminal constrains the movement of cargo through the terminal. Optimal throughput capacity is independent of external influences such as economic cycles or disruptions in local, regional or national transportation systems.

***Key* Definitions**

Throughput = the number of containers that pass through a terminal over a given time.

Terminal Capacity = a function of terminal configuration, berth length, backland area, the ratio of berth length to backland area, the ratio of grounded vs. wheeled containers and the number and types of equipment in use.

Historically, not all terminals at the Port were designed to optimize throughput capacity but were built instead to conform to the physical space available at the time. Accordingly, most terminal capacity's are limited by one or more of their components, such as the amount of berth space available to accommodate the newest/largest ships in the fleet, the number and size of cranes used to load and unload the ships, the amount and shape of backland adjacent to the berth, adequate gate facilities for trucks, or access to on-dock railyards. As a simplified example, a terminal of 500 acres and only one berth would be constrained by the number of ships it could berth (berth constrained), while a terminal with five long berths but only 50 acres of backland would be constrained by the

amount of cargo that could be handled by the backlands (backland constrained). Because shipping contracts with manufacturers and retailers are dynamic and third-party accounts that use berth space can increase the throughput rates, terminal planning is based more on optimal-capacity rates and long term supply and demand forecasts rather than on individual shipping company business plans.

1.2.2.2 Intermodal Cargo Transit

After containers are sorted by destination within the backlands, the next segment of the goods movement chain involves rail and trucking operations that then move the containers to other destinations. Imported containers, off-loaded from ships onto a marine terminal, are placed in staging areas inside the terminal for transport out of the Port by truck or train. Containers follow one of three basic pathways for transport beyond the terminal. They may be loaded directly onto railcars within the terminal railyard, they may be loaded onto trucks for transport to their final destination, or they may be loaded onto trucks for transport to a railyard outside the terminal. Similarly, containers for export arrive at a marine terminal via either train or truck and are temporarily placed in container staging areas for subsequent loading onto ships. Figure 1-4 shows the surface transportation mode percentage for the Port Complex.

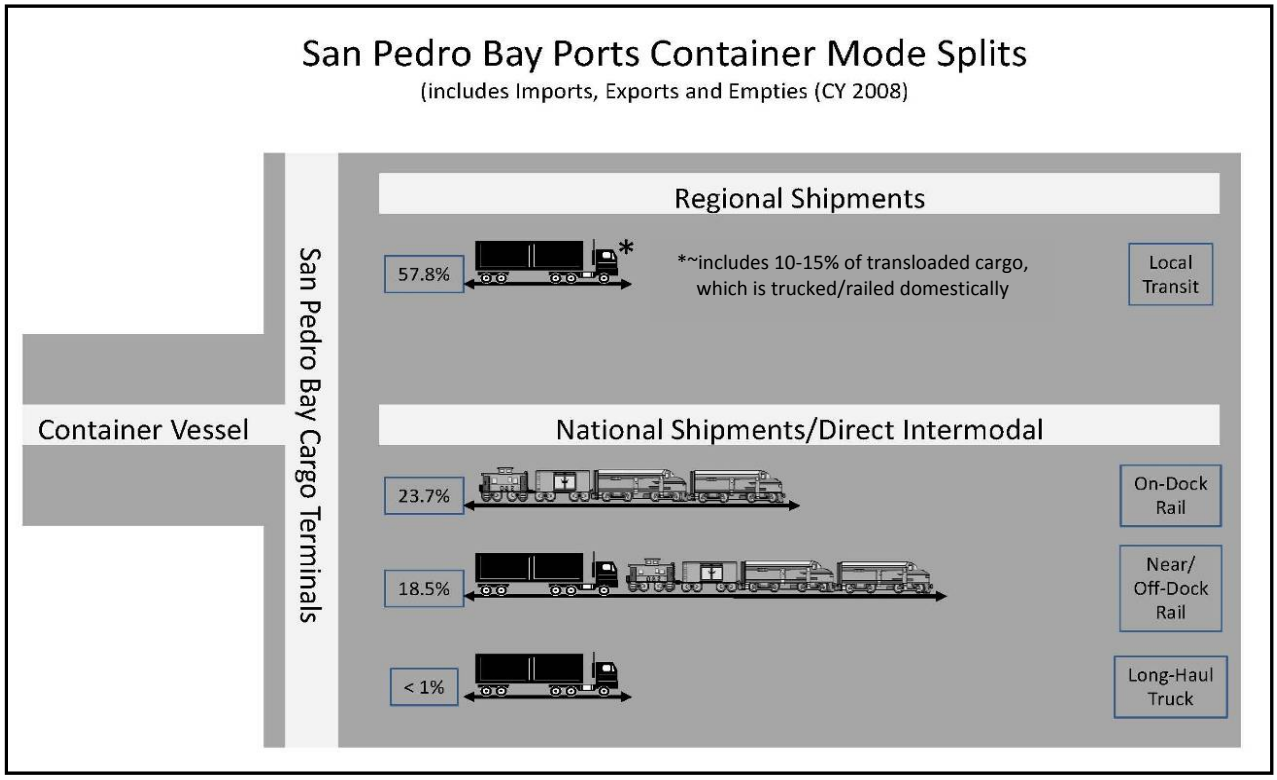


Figure 1-4: Port-wide Container Mode Splits, Ports of Los Angeles and Long Beach

1.2.2.2.1 Intermodal Cargo Transport: Trucks

The hauling of containers by truck can be categorized into "local transport by truck," transloaded truck hauling, and truck drayage.

1.2.2.2.1.1 Local Transport By Trucks

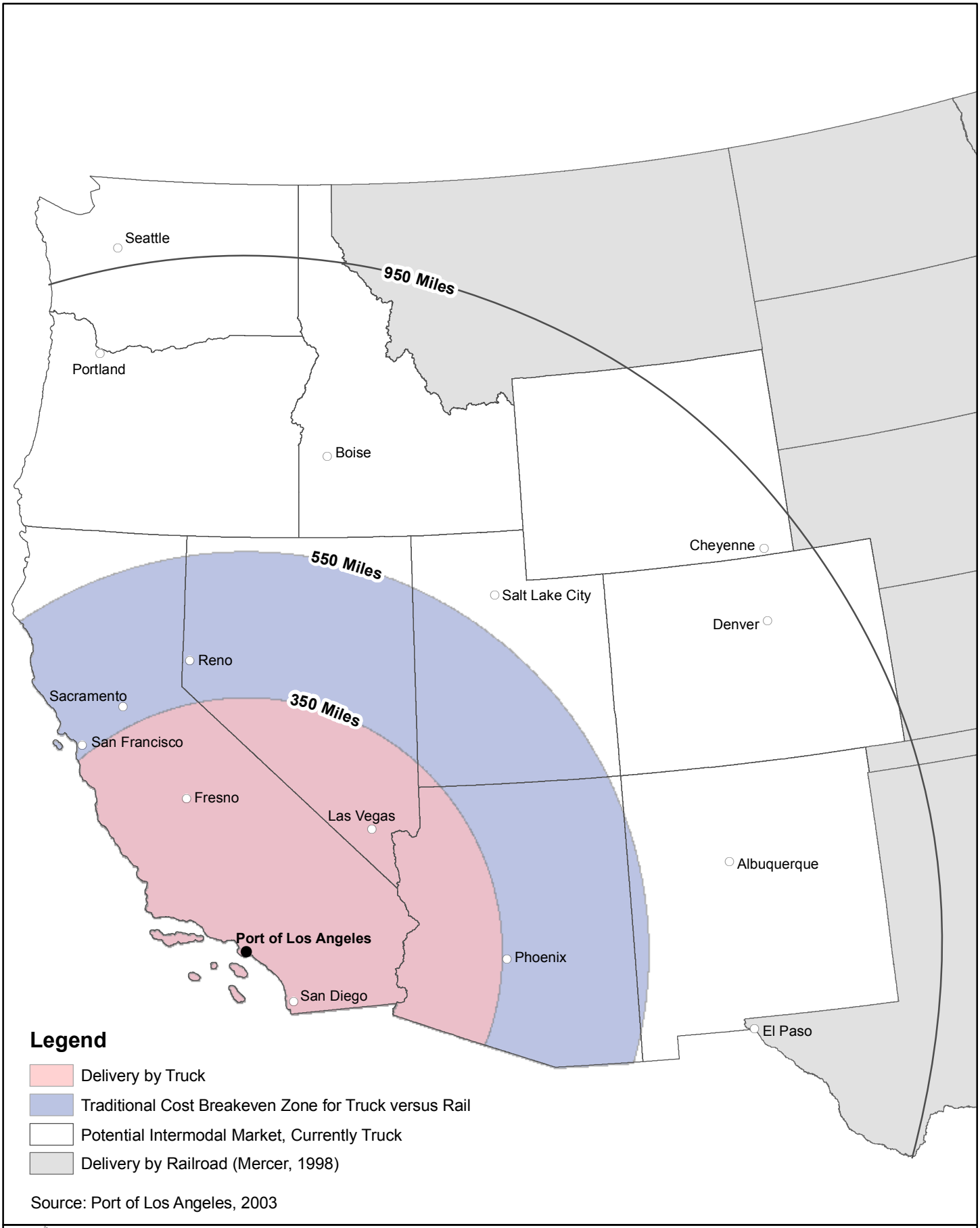
In "local transport by truck", the container is loaded onto a chassis that is then hauled by a street-legal truck over public roadways from the terminal to its destination. A truck usually carries one container. This mode of transport is most frequently utilized for local area destinations but also used for destinations within approximately 500 to 700 miles from the marine terminal to include areas of Northern California, Arizona, and Nevada). Long-haul (defined as distances in excess of 700 miles) trucks convey less than one percent of total cargo from the Port to national markets (Figure 1-5).

Key Definitions

Drayage means to haul on a dray, which is a vehicle used to haul goods; classically referred to a strong cart or wagon without sides. Currently, drayage is commonly used to mean the transportation of containerized cargo by specialized trucking companies between ocean ports or rail ramps and shipping docks in intermodal freight

1.2.2.2.1.2 Transloaded Cargo

In some cases, cargo is transported by truck from the marine terminals to warehouses for temporary storage or freight forwarders and distribution centers for repackaging. Cargo in containers subject to this alternative management process is said to be "transloaded." In transloaded truck hauling, the container is loaded onto a chassis that is hauled by a street-legal truck over public roadways from the terminal to an intermediary location, where it is unloaded and the cargo is repacked into new often larger containers (while intermodal containers are generally 20 or 40 ft in length, domestic containers are generally 53 ft in length). The newly packed container is then hauled by truck or rail to its final destination (see Figure 1-6). As shown in Figure 1-4, transloaded cargo trucked/railed domestically accounts for approximately 10 to 15 percent (of total, two-way throughput), or approximately 19-29 percent of imports only.



Source: Port of Los Angeles, 2003

N

0 40 80 160 240 Miles

Port of Los Angeles
Berths 302 - 306 [APL]
Container Terminal Project
Local Cargo Distribution from Port of Los Angeles

Figure 1-5

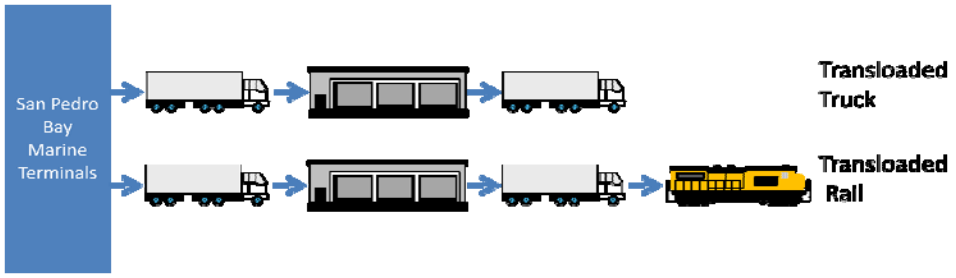


Figure 1-6: Transloaded Cargo

1.2.2.2.1.3 Truck Drayage

In truck drayage, containers are loaded onto a chassis to be hauled by a street-legal truck over public roadways from the terminal to a rail facility beyond port boundaries (see Figure 1-7). The container is then loaded onto a rail car and moved by rail to its final destination. As shown in Figure 1-4, national shipments/direct intermodal using near/off-dock rail accounts for approximately 18 percent.

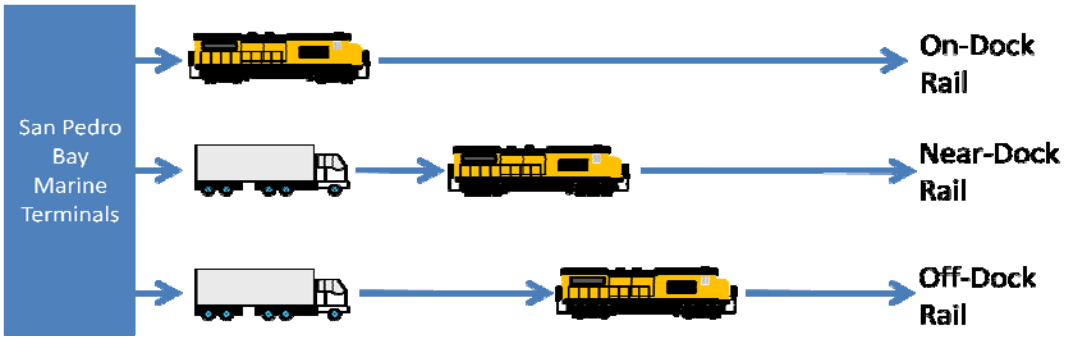


Figure 1-7: Truck Drayage

1.2.2.2.2 Intermodal Cargo Transport: Rail

With respect to imported containers, the rail-based link of the goods movement chain commences at the marine cargo terminals where containers are offloaded from ships and sorted based on railyard destination, which could include on-dock, near-dock and off-dock facilities. For containers that are exported, the process is reversed and the containers are transported to the terminal via train, in the case of on-dock rail facilities, or drayage, in the case of near-dock and off-dock railyards.

A modern intermodal railyard is a facility that integrates several different physical components and operational processes in order to load and unload containers onto and off trains for subsequent transport to their destinations by truck or means of other drayage. As discussed above, cargo bound for destinations more than 700 miles from the marine terminal is moved almost exclusively by rail due to the tremendous cost savings of rail over truck over such distances. There are large quantities of containerized cargo bound for destinations far inland of the seacoast, and trains are the most cost-effective way of getting that cargo to those inland destinations.

Intermodal rail facilities fall into three categories: 1) on-dock facilities (those located within marine terminals); 2) near-dock facilities (those located within roughly five miles

of the marine terminals); and 3) off-dock facilities (those more than five miles from the marine terminals). Regardless of the railyard's type, the physical components of an intermodal railyard consist of loading/unloading tracks, lead tracks connecting the railyard to the mainline, container storage areas, mobile cranes and other cargo-handling equipment, entrance and exit gates for trucks, and maintenance and administrative buildings. The operational processes include loading and unloading trains, container storage and management, truck gate operations (processing inbound and outbound trucks hauling containers), and minor locomotive, railcar, and cargo-handling equipment maintenance. These operations are described in more detail below.

1.2.2.2.2.1 On-Dock Rail

On-dock railyards are defined as railyards located within the marine cargo terminals at the Port. Containers are moved from the terminal's backlands to the terminal's railyard via cargo-handling equipment called yard tractors or yard hostlers without movement through the gate or onto local roadways. Typically, trains built at on-dock railyards consist of a single block of railcars all headed for the same destination; cargo that cannot fill a single-destination train is drayed to off-dock and near-dock railyards to be combined with cargo from other marine terminals headed for the same destination.

Key Definitions

On-Dock Railyards: railyards located within the marine cargo terminals.

Near Dock Railyards: railyards located less than five miles outside of the marine terminal requiring a short truck trip from the marine terminal to the railyard via local streets.

Off Dock Railyards: railyards located greater than five miles from marine terminals

There currently are nine on-dock railyards within the Port Complex (see Figure 1-8), including the on-dock railyard on the APL Terminal, with another two permitted for construction and one proposed. Containers handled at the on-dock railyards leave the port area via the Alameda Corridor, a 20-mile long, multiple-track rail system designed to link the rail facilities of the Port Complex with the transcontinental rail network of UP and BNSF near downtown Los Angeles.

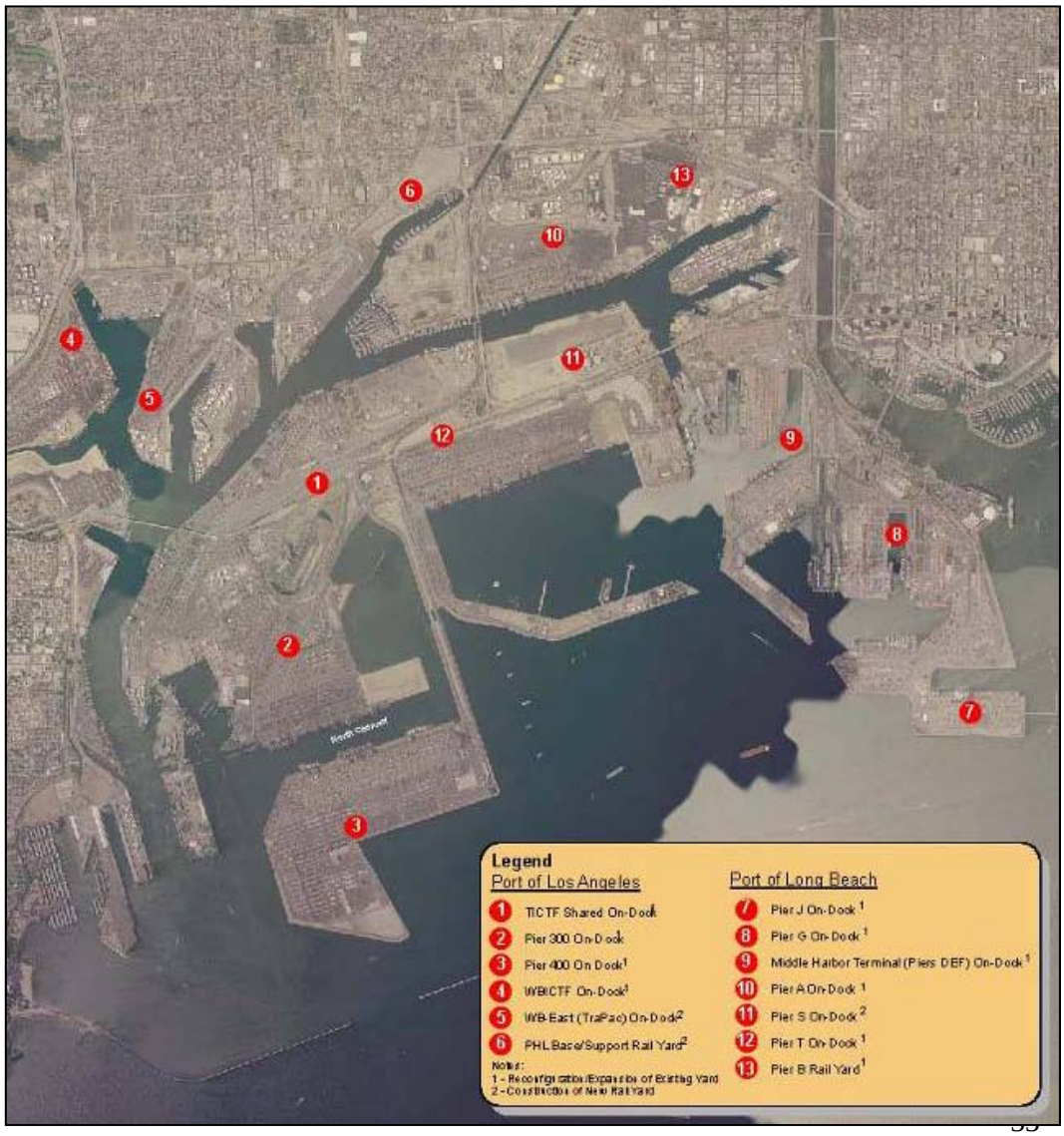


Figure 1-8: San Pedro Bay Port Complex On-Dock Railyards

1.2.2.2.2.2 Near-Dock Rail

A near-dock railyard is defined as a railyard located less than five miles outside of the marine terminal requiring a short truck trip from the marine terminal to the railyard via local streets. A near-dock railyard permits the railroad to combine cargo from various marine terminals to build trains that efficiently transport cargo to specific destinations throughout the country. For example, a terminal may have enough containers to build a unit train to Chicago, but only have enough containers bound for Kansas to build half a train. The Kansas bound containers are then sent to a near-dock facility to be combined with other Kansas bound containers from other terminals to make up one unit train to Kansas. Currently, only one near-dock railyard, the UP ICTF located in the City of Los Angeles near Carson, serves the Port Complex. BNSF has applied to construct a second near-dock rail facility in Carson, but the proposed near-dock railyard is still undergoing environmental review.

A key benefit of near-dock rail compared to off-dock rail (discussed below), is the shorter drayage truck travel distance between the marine terminal and the railyard.

1.2.2.2.2.3 Off-Dock Rail

An off-dock railyard is defined as a railyard located greater than five miles from marine terminals. There are two off-dock railyards that handle a high number of containers from the Port Complex, the BNSF Hobart Yard in Los Angeles/Commerce/Vernon and the UP East Los Angeles Yard (See Figure 1-9). Both railyards are located near downtown Los Angeles, approximately 20 miles from the Ports. Because these railyards are located off the I-710 freeway, most of the trucks use that freeway as a major thoroughfare. Like near-dock railyards, off-dock railyards can combine small amounts of cargo from each of the several marine terminals (including those that do not have on-dock facilities) to build trains, thus offering more flexibility than on-dock railyards. However, as discussed above, compared to a near-dock railyard, off-dock yards require longer drayage distances, which are more expensive, both in terms of time and money, to the shipper.

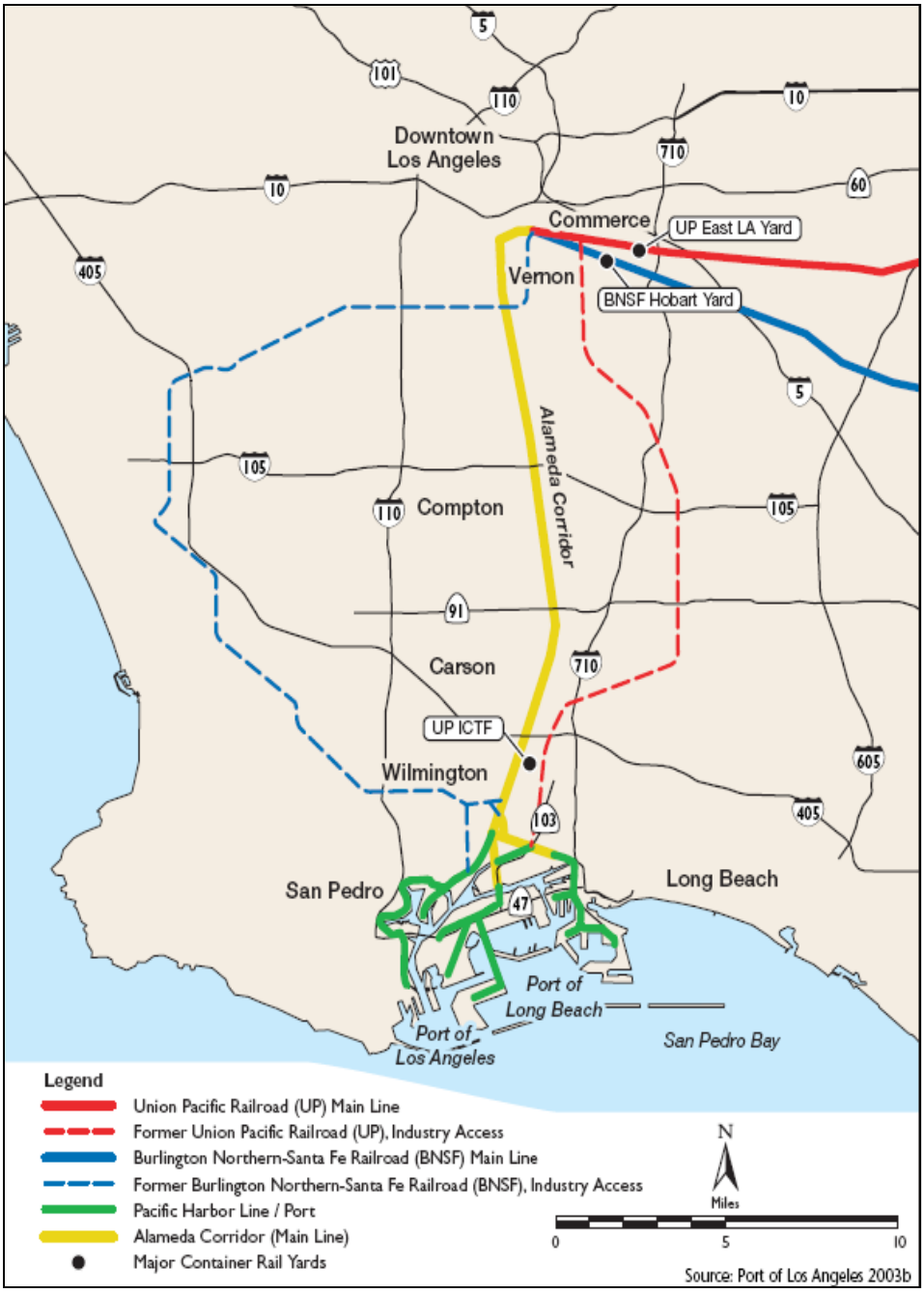


Figure 1-9: Location of Existing Near-Dock and Off-Dock Railyards.

1.2.2.2.3 Intermodal Railyard Operations

As mentioned above, intermodal railyard operations generally involve trucks, container handling equipment, and trains. On-dock railyards, however, typically do not involve on-road trucks, since containers are moved between the railyard and the ships or storage yard within the terminal by yard equipment. In the case of off-dock and near-dock facilities, drayage trucks arrive at and depart from the facility hauling 20- or 40-foot shipping containers on chassis. The majority of trucks (or, in the case of on-dock facilities, yard tractors) are directed straight to track side, where a mobile crane lifts the container off the chassis and places it on a railcar for further shipment, or lifts a container off a railcar and places it on the truck chassis. The mobile cranes at off-dock and near-dock facilities are typically large structures that run on rails or fixed runways and span both rail tracks and truck lanes. The cranes at on-dock yards are typically smaller vehicles (called toplifts) that operate more like forklifts along the side of the tracks, though EMS uses the larger rail mounted gantry cranes. Containers not immediately placed on railcars or trucks are stored in a designated container staging area, to be loaded at a later time. Truck tractors with an empty chassis often pick up a container for an outbound trip to the marine terminals, although many leave empty.

Trains entering and leaving intermodal railyards consist of flat-car-like railcars known as double-stack cars, which are designed especially for transporting shipping containers, and several diesel-powered locomotives. Containers are stacked two-high on the railcars, thereby doubling the cars' capacity compared to a flatcar that cannot handle double-stacking. The standard double-stack car is approximately 265 ft long, although some are as long as 305 ft, and includes five bays, or wells, connected by articulated couplers that allow the car to negotiate curves. Three-bay and single-bay cars are also used, although they are less common than five-bay cars. A typical intermodal train is composed of as many as 29 such cars, is approximately 8,000 ft long (including locomotives and inter-car spaces), and carries approximately 280 containers.

The average train length handled by the APL Terminal on-dock facility is 4,725 ft, which reflects limitations on the length and capacity of the on-dock track segments and adjacent storage yard, where trains are coupled and uncoupled prior to arrival in the on-dock facility. The adjacent storage yard is not operated by EMS.

Inbound trains are routed onto loading tracks, known as "strip tracks". Because the strip tracks are typically much shorter than the train, the trains are uncoupled to break them into two or more blocks, each of which is positioned on a strip track. On-dock railyards are typically shorter than off-dock and near-dock yards, so that more blocks, and therefore more train movements, are necessary. The locomotives are uncoupled and moved to locomotive servicing facilities for any necessary inspections, refueling, and servicing; however, because many on-dock facilities do not have locomotive servicing facilities, locomotives that frequent such facilities must be moved to the nearest railroad facility such as Watson, for BNSF, or Dolores, for UP. These switching activities are handled by locomotives called "yard locomotives," which have less horsepower than "line haul" locomotives that move completed trains over long distances to their ultimate destinations. Outbound trains are assembled ("built") and leave the facility in essentially the reverse process, coupling together two or more blocks of railcars to make a full train. The train departs after proper inspections and testing.

1.2.3 Increasing Intermodal Cargo Volumes

Of the approximately 43.2 million TEUs of containerized cargo expected at the Port Complex by the year 2035, the Port expects, on the basis of current trends, that nearly half, or 21.6 million TEUs, will be intermodal and thus will need to be handled by the various intermodal railyards serving the Port Complex (Table 1-2).

Table 1-2: Mode Split of Containers Handled at the Ports of Los Angeles and Long Beach in 2008

Container Mode	TEUs (Millions)	% of Total
Direct Rail (Direct Intermodal)	6.05	42.2
- On-Dock[1]	(3.4)	(23.7)
- Near-Dock[2]	(1.08)	(7.5)
- Off-Dock[3]	(1.57)	(11.0)
Transload[4]	1.63	11.0
Local/Regional (Truck only)	6.65	46.8
Total	14.33	100

Source: POLA, 2009
1. On-dock rail is defined as rail within a marine terminal
2. Near-dock rail is defined as rail within 5 miles of a marine terminal
3. Off-dock rail is defined as a rail facility located more than 5 miles from marine terminals
4.Transloading is the practice of transferring goods from marine containers to domestic intermodal containers

As Table 1-2 shows, about 42 percent of import containers are currently conveyed directly to rail facilities, either on-dock, near-dock, or off-dock, to leave the Ports on trains, with the majority of this cargo being transported via on-dock railyards. This portion of rail bound cargo, which is generally termed "direct intermodal cargo," has remained at around 40 percent for the last 10 to 15 years, and is projected to remain generally at this level for the foreseeable future. Another approximately 11 percent of import containers are transloaded (Table 1-2), which is the practice of transferring (repacking) goods from marine intermodal containers to domestic intermodal containers (which are generally larger than marine and are controlled mainly by retailers) or transferring among truck trailers at distribution centers and warehouses throughout the greater Los Angeles region. The domestic intermodal containers are then drayed to an intermodal railyard for transport by rail to their eastern destinations.

1.2.4 Containerized Cargo Growth and Port Capacity

This section presents background information regarding containerized cargo growth at the Port. Between 1970 and 2006, containerized shipping through U.S. West Coast ports increased twentyfold, driven primarily by increasing U.S. trade with Asian economies. In 2000, the value of waterborne trade through West Coast ports reached $309 billion, a 400 percent increase from1980 (Dickerson and Iritani, 2002).

Major West Coast ports; particularly, the ports of Los Angeles, Long Beach, and Oakland, have continued to invest billions of dollars optimizing facilities to accommodate increases in containerized shipping. These ports have deepened their harbors to accommodate large, deep-draft container ships; demolished outdated facilities

and built new container terminals in their place; and created new land to provide additional terminal backlands. Some marine terminal operators have purchased high-speed cranes, modernized transportation equipment, and increased automated operations to move containers more rapidly between ships and trucks or trains. These and other improvements represent an on-going effort to accommodate the anticipated growth in cargo. Major projects are planned for both the Port of Los Angeles and Port of Long Beach are planned well into the future.

Anticipating the continued importance of containerized shipping, the LAHD and Port of Long Beach, together with the USACE, conducted a series of studies to forecast cargo volumes through the year 2020 and to evaluate the capacity of the Port Complex to accommodate those cargo volumes (LAHD et al., 1985; WEFA, 1987, 1989, and 1991). The cargo forecasts projected significant increases in containerized cargo from Pacific Rim countries to the Pacific West Coast and the Port Complex. Those forecasts were used to develop an Operations, Facilities, and Infrastructure (OFI) Study, which concluded that the LAHD and Port of Long Beach would need to provide substantial additional physical facilities and make significant operational improvements to accommodate the anticipated growth of containerized cargo traffic calling on the two ports (VZM, 1988).

The OFI Study, together with other inputs was used to prepare the San Pedro Bay 2020 Plan. This Plan envisioned the construction of new land for new container terminals and the optimization of existing terminals at both the Port of Los Angeles and Port of Long Beach (Wharton Econometric Forecasting Associates [WEFA], 1991).

Major projects identified by the 2020 Plan included: the construction of the Pier 300 container terminal for APL, Pier 400 (a 484-acre facility supporting the container terminal operated by APM Terminals [Maersk]), construction of the Alameda Rail Corridor, and other construction projects to modernize existing terminals and improve the transportation infrastructure at the Port (USACE, 1992; USACE and LAHD, 1992). LAHD continues to deepen the Port's main channels to accommodate newer-generation container ships at existing container terminals in the Inner Los Angeles Harbor (USACE and LAHD, 2000; USACE, 2000; USACE and LAHD, 2009).

1.2.4.1 Throughput Demand Forecasts

Between the early 1990s and 2008, the actual volume of containerized cargo passing through the Port Complex greatly exceeded the earlier WEFA forecasts and subsequent projections.

Even with the recession of 2001, the average growth rate between 1995 and 2006 was over 10 percent per year. In December 2007, Tioga prepared a new long-term cargo forecast through 2030 for the Port Complex. This forecast was a demand-based (i.e., unconstrained by the actual physical or operational capacities of the two Ports) forecast, assuming that transportation and infrastructure capacity would be available to meet the demand. The forecast approach was a long-term average trend projection which does not attempt to capture the timing of when normal booms and recessions might occur, but instead plots an average growth rate.

The 2007 forecast predicted that market demand for cargo through the Ports would be approximately 65.1 million TEUs in 2030. The range of TEU forecast scenarios

incorporated high and low growth and market share assumptions. The base case/base share scenario is meant to represent the most likely container cargo growth path for the Port Complex as illustrated in Table 1-3 below.

Table 1-3: 2007 Base Case/Base Share Cargo Demand Forecast, in Millions of TEUs

	000 TEU						
Scenario	2005	2006	2010	2015	2020	2025	2030
Unadjusted Base Case Forecast							
	14,194	**15,760**	**21,208**	**29,161**	**39,014**	**51,757**	**70,018**
High Growth Adjusted Forecast							
High Share	14,194	15,760	22,152	30,945	42,766	58,859	81,553
Base Share	14,194	15,760	21,813	30,386	41,877	57,492	79,455
Low Share	14,194	15,760	21,041	29,474	40,643	55,833	77,216
Base Case Adjusted Forecast							
High Share	14,194	15,760	20,747	28,305	37,854	50,204	67,937
Base Share	**14,194**	**15,760**	**20,260**	**27,570**	**36,723**	**48,396**	**65,052**
Low Share	14,194	15,760	19,141	26,180	34,764	45,780	61,544
Low Growth Adjusted Forecast							
High Share	14,194	15,760	19,071	24,569	31,190	39,050	50,776
Base Share	14,194	15,760	18,605	23,816	29,979	37,170	47,829
Low Share	14,194	15,760	17,500	22,594	28,416	35,186	45,294

Source: Tioga, 2007

Following release of the 2007 cargo forecast, the U.S. and world economy entered a severe recession. This recession had a more profound effect on international trade at a much higher than prior recessions, and volumes at the Ports were, for a recent period, significantly below 2006 peak volumes. As a result, in 2009, the LAHD and Port of Long Beach reexamined the forecasted cargo projections based on new economic conditions. The 2009 Tioga forecast update starts from a lower base volume than the 2007 forecast. In addition, the model predicts continuing declines through 2009 with 2010 marking the end of the recession and a return to positive cargo growth rates (Tioga, 2009). Essentially, it will take the Ports six to seven years to return to the peak TEU volumes seen in 2006, and the Ports will continue to grow at a slower pace than predicted in the 2007 forecast. The lower growth rates mean that the gap between the new and old forecasts widens over time, eventually resulting in a 46.9 percent gap in 2030. The 2007 forecast predicted that market demand for cargo through the Ports would be 65.1 million TEUs in 2030. The updated 2009 forecast predicts that market demand will now be 34.6 million TEUs in 2030.

1.2.4.2 San Pedro Bay Ports Container Terminal Throughput Capacity

Because the 2007 and 2009 cargo forecasts are demand forecasts that do not account for physical and operational constraints on the ability of individual terminals in Los Angeles and Long Beach to accommodate the projected cargo, LAHD and the Port of Long Beach also evaluated the physical/operational throughput capacity of Port terminals, in order to provide an accurate and realistic forecast of terminal activity.

Due to the recent cargo forecasts prepared by Tioga, new terminal capacity estimates for container facilities were made by the LAHD and Port of Long Beach and these estimates

reflect key assumptions about how much land will ultimately be available for container use and how these terminals will operate.

To project or estimate the maximum or optimal throughput capacity of each terminal in the Port through the year 2035, the Port uses a methodology based on two capacity models, one that analyzes the terminal's backland capacity and one that analyzes the terminal's berth capacity. The modelers make realistic assumptions regarding different physical improvements (e.g., increasing the length of a berth or adding more container yard) and operating parameters (e.g., increasing the number of hours worked per day or crane productivity, decreasing the amount of time containers are allowed to remain in the terminal) in order to estimate the future operating throughput capacity of each terminal, including ones yet to be built. The assumptions, while reasonable, result in higher throughput capacity than exists today on a per acre basis; for example, terminals are assumed to be able to reach throughputs of 10,000 TEU per acre per year, as compared to existing terminal throughput levels of between 5,000 and 7,000 TEUs per acre.

The approach of evaluating demand forecasts in conjunction with terminal throughput capacity allows the Port and its tenants to identify shortfalls between demand for future cargo volumes and the capacity of the terminals to handle those volumes.

The results of the capacity modeling show that even with the assumed changes in physical configurations and operating practices, throughput at the Port Complex will eventually be constrained at 43.2 million TEU. Figure 1-10 includes the estimated total container terminal throughput capacity, accounting for both added land and efficiency gains, of the Port Complex and projected market demand from the 2007 forecast (represented in pink) and the 2009 forecast (represented in yellow). As shown, the 2007 throughput demand projection prior to the 2009 update was forecasted to exceed Port Complex capacity starting in approximately 2028. It is important to note that the throughput capacities shown in Figure 1-10 could not be met by existing terminal configurations and operating practices but rather assume additional improvements.

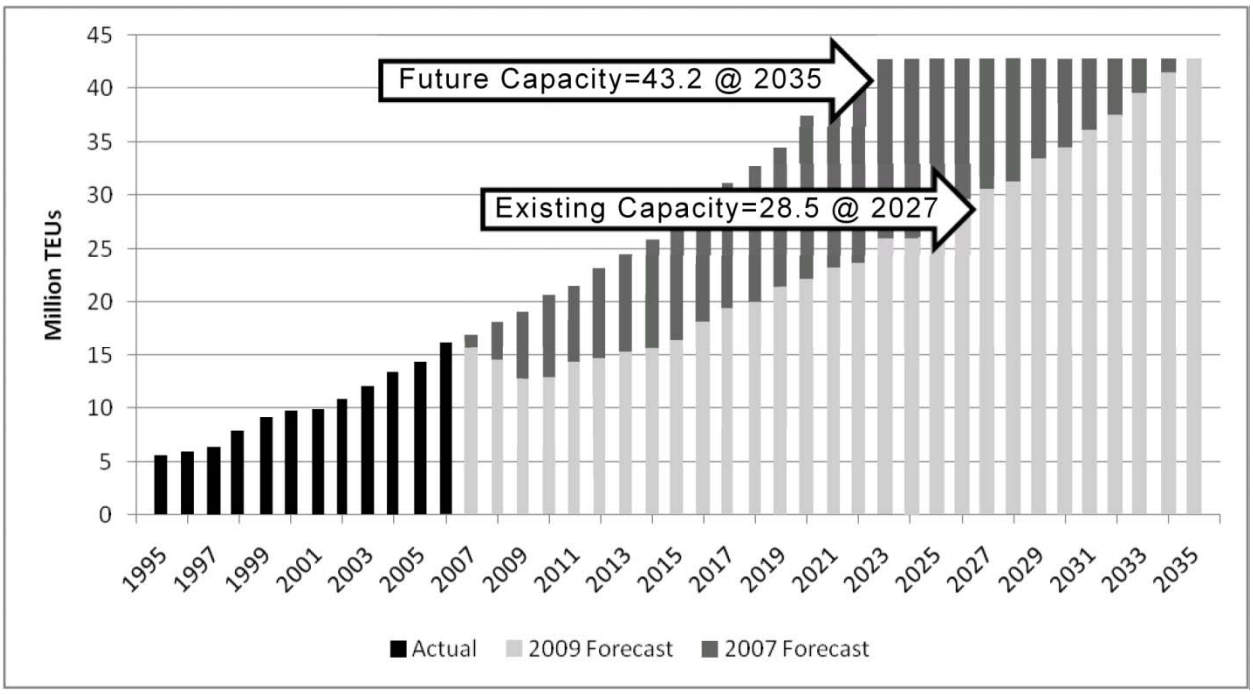


Figure 1-10: Cargo Forecasts for the San Pedro Bay Port Complex

In Millions of TEUs (based on the 2007 and 2009 Tioga Studies forecasts) showing both demand and capacity (Port of Los Angeles, 2009)

Using the more recent 2009 forecast, forecasted demand will exceed Port capacity approximately by 2035 as shown in Figure 1-10, which includes the estimated total container terminal throughput capacity, accounting for both added land and efficiency gains, of the Port Complex (as indicated by the top arrow) and projected market demand from the 2009 forecast (represented by the yellow bars). As shown, the 2009 forecasted demand will exceed future capacity starting in approximately 2035.

Table 1-4 below illustrates projected cargo volumes through year 2035, based on the previous 2007 forecast and constrained by future capacity.

Table 1-4: 2007 San Pedro Bay Port Complex Cargo Forecast (shown in TEUs)

Year	2008	2012	2016	2020	2023	2030	2035
Total San Pedro Bay Port Complex Cargo Volume	14,328,355	23,444,658	29,878,496	36,456,136	42,756,747	43,158,000	43,158,000
Total Direct Intermodal Demand	6,051,474 (42.2%)	9,377,863 (40.0%)	11,951,398 (40.0%)	14,582,454 (40.0%)	17,102,699 (40.0%)	17,263,200 (40.0%)	17,263,200 (40.0%)
On-dock Rail Demand	3,401,219 (23.7%)	5,549,000 (23.5%)	7,910,000 (26.5%)	10,340,000 (28.4%)	11,710,000 (27.4%)	12,860,000 (29.8%)	12,860,000 (29.8%)
Near-/Off-dock Rail Demand	2,650,255 (18.5%)	3,887,863 (16.5%)	4,041,398 (13.5%)	4,242,454 (11.6%)	5,392,699 (12.6%)	4,403,200 (10.2%)	4,403,200 (10.2%)

Source: LAHD, 2010
Notes: The percentages shown below the TEUs figures represent the portion of the total San Pedro Bay Port Complex Cargo Volume that is transported by the mode indicated.

Under the more recent 2009 revised forecast shown in Table 1-5, the capacity constraint is delayed by approximately seven years or until 2035 (from 2028 projected under the 2007 forecast), at which point all Port marine terminals would need to function at maximum capacity to accommodate the cargo volumes coming to the Port.

Table 1-5: 2009 San Pedro Bay Port Complex Cargo Forecast (shown in TEUs)

Year	2008	2012	2016	2020	2023	2030	2035
Total San Pedro Bay Port Complex Cargo Volume	14,328,355	14,334,116	17,836,885	21,827,000	25,176,816	34,563,000	43,158,000
Total Direct Intermodal Demand	6,051,474 (42.2%)	5,733,646 (40.0%)	7,134,754 (40.0%)	8,730,000 (40.0%)	10,070,726 (40.0%)	13,825,200 (40.0%)	17,263,000 (40.0%)
On-dock Rail Demand	3,401,219 (23.7%)	3,690,000 (25.7%)	5,930,000 (33.2%)	7,250,000 (33.2%)	8,050,000 (32.0%)	11,070,000 (32.0%)	12,860,000 (29.8%)
Near-/Off-dock Rail Demand	2,650,255 (18.5%)	2,043,647 (14.3%)	1,204,754 (6.8%)	1,480,800 (6.8%)	2,020,726 (8.0%)	2,755,200 (80.7%)	4,403,200 (10.2%)

Source: LAHD, 2010
Notes: The percentages shown below the TEUs figures represent the portion of the total San Pedro Bay Port Complex Cargo Volume that is transported by the mode indicated

As shown above, San Pedro Bay Port-wide, under the 2009 demand forecast, the future physical and operational capacity of the Ports will be able to accommodate the expected demand up to 2035. However, it is important to note that the capacity model assumes that both the LAHD and Port of Long Beach will move forward with certain physical upgrades, including the proposed Project. Operational improvements possibly could increase the capacity of container terminals in the Port Complex beyond 43.2 million TEUs; however, at present, such improvements are speculative. However, should new feasible technology become available that would increase Port capacity beyond that presently anticipated, improvements required to implement such technology would require discretionary actions and environmental evaluation in accordance with CEQA to evaluate potential environmental effects.

Both the 2007 and 2009 Tioga Studies forecast that future throughput demand levels will exceed existing Port capacity levels and expansion will be needed to accommodate that demand. In addition, the forecast and capacity studies do not consider the market conditions of individual shipping companies and terminal operators (Tioga, 2007 and 2009). There are competitive differences between container terminals within the Ports, and each terminal's market share will reflect these differences at any given point in time. Therefore, the environmental analysis in this EIS/EIR assumes that the APL Terminal will achieve cargo levels that meet the optimal physical and operational capacities of the APL Terminal, as expanded. Actual throughput levels might be lower due to changes in consumer demand patterns and/or economic conditions, but, for the purposes of this EIS/EIR, it is assumed the proposed Project operates at optimal capacity by 2027.

1.3 Purpose of an EIS/EIR

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

1.3.1 NEPA and the Purpose of an EIS

NEPA was enacted by Congress in 1969 and requires federal agency decision-makers to document and consider the environmental consequences of their actions or decisions on the quality of the human environment. In enacting NEPA, Congress intended to ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. It further was intended that NEPA would help public officials to make decisions that are based on an understanding of environmental consequences and to take actions that protect, restore, and enhance the environment.

When a federal agency determines that federal action associated with a proposed project could result in significant environmental effects, an EIS is prepared, which must provide full and fair discussion of anticipated significant environmental impacts. The EIS informs decision-makers and the public of the reasonable alternatives that would avoid or minimize significant impacts or enhance the quality of the human environment. An EIS is not only a disclosure document but also a decision-making aid that is used by federal officials in conjunction with other relevant material to plan actions and make decisions.

1.3.2 CEQA and the Purpose of an EIR

CEQA was enacted by the California Legislature in 1970 with the intent that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian. (PRC. Div.13, Section 21000. Legislative Intent). Public agency decision-makers are required to consider and document the environmental effects of their actions and, whenever possible, to avoid adverse effects to the environment. When a state or local agency determines that a proposed project has the potential to significantly affect the environment, an EIR is prepared. The purpose of an EIR is to identify significant effects of a proposed project on the physical environment, to identify alternatives that can reduce the project's significant effects while achieving the project objectives, and to indicate the manner in which a project's significant effects can be mitigated or avoided. A public agency must mitigate or avoid significant environmental impacts of projects it carries out or approves whenever feasible. In instances where significant impacts cannot be avoided or mitigated, the project can nonetheless be carried out or approved if the approving agency finds that economic, legal, social, technological, or other benefits outweigh the unavoidable significant environmental effects. Like an EIS, an EIR is intended to be a full disclosure document and an aide t the process of public decision-making.

1.4 Lead, Responsible, and Trustee Agencies

Bothe NEPA and CEQA define roles for "Lead Agencies." Under NEPA the lead agency or agencies is/are that/those entity(ies) that prepares or takes primary responsibility for preparing the NEPA document. Under CEQA, the "Lead Agency" means the public agency which has the principal responsibility for carrying out or approving a project. The lead agency will decide whether an EIR or negative declaration will be required for the project and will cause the document to be prepared (Guidelines Section 15367).

The USACE and LAHD are the NEPA and CEQA (respectively) Lead Agencies for the proposed project including the evaluation of potential impacts and identification of mitigation measures under the federal NEPA and state CEQA laws, respectively. The USACE and LAHD are preparing this joint EIS/EIR in the interest of efficiency and to avoid duplication of effort.

Several other agencies have special roles with respect to the proposed Project and will use this EIS/EIR as the basis for their decisions to issue any approvals and/or permits that might be required. Section 15381 of the CEQA Guidelines defines a "responsible agency" as:

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

Additionally, Section 15386 of the CEQA Guidelines defines a "trustee agency" as:

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

Table 1-6 lists the lead, responsible, and trustee federal, state, and local agencies that could rely on this Draft EIS/EIR in a review capacity or as a basis for issuance of a permit or other approval for the proposed Project.

Table 1-6: Agencies Expected to Use this EIS/EIR

Agency	Responsibilities, Permits, and Approvals
Federal Agencies	
U.S. Army Corp of Engineers (USACE)	Lead federal agency for implementation of NEPA on this Project. Responsible for permitting work and structures in navigable waters, discharges of dredged or fill material in waters of the U.S., and transport and disposal of dredged material at United States Environmental Protection Agency (USEPA)-designated sites in ocean waters. It is anticipated a USACE permit pursuant to Section 10 of the River and Harbor Act (RHA), and Section 103 of the Marine Protection, Research, and Sanctuaries Act (MPRSA) would be required for the proposed Project.
National Oceanographic and Atmospheric Agency (NOAA) Fisheries/ National Marine Fisheries Service (NMFS)	Reviews and submits recommendations to the USACE related to federal construction actions and issuance of permits in accordance with the Fish and Wildlife Coordination Act and consultations pursuant to Section 7 of the Endangered Species Act (ESA) for non-terrestrial species. Administers Marine Mammal Protection Act (MMPA) with respect to certain species. Also responsible for Essential Fish Habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act. Provides EFH information, reviews potential effects of federal action on EFH, and provides conservation recommendations to USACE through consultation. Issues take authorizations under the MMPA and ESA for certain species.
U.S. Coast Guard (USCG)	Has jurisdiction over marine facilities, bridges, and vessel transportation in harbor waters. Responsible for ensuring safe navigation and for preventing and responding to oil or hazardous materials releases in the marine environment.
U.S. Environmental Protection Agency (USEPA)	Has primary responsibility for implementing the Clean Air Act (CAA) and works with other federal agencies to implement conformity requirements. Reviews and submits recommendations for Spill Prevention Control and Countermeasure (SPCC) Plans for non-transportation-related onshore and offshore facilities engaged in storing, processing, refining, transferring, distributing, or consuming oil and gas products. Regulatory authority for determining suitability of dredged sediments for ocean transport and disposal in accordance with Section 103 of the MPRSA. Reviews and submits recommendations to the USACE related to federal construction actions and issuance of Section 404 and 103 permits, as applicable.
U.S. Federal Railroad Administration	Reviews and approves changes in rail trackage, connections, signage, and bridges.
U.S. Fish and Wildlife Service (USFWS)	Reviews and submits recommendations to USACE related to federal construction actions and issuance of permits in accordance with the Fish and Wildlife Coordination Act and consultations pursuant to Section 7 of the Federal Endangered Species Act (ESA) for terrestrial and some aquatic species. Issues take permits under the Migratory Bird Treaty Act (MBTA). Issues take authorizations under the MMPA and ESA for certain species.

Table 1-6: Agencies Expected to Use this EIS/EIR

Agency	Responsibilities, Permits, and Approvals
State Agencies	
California Air Resources Control Board (CARB)	Permitting/registering authority for various equipment, such as trucks and reefer units. Enforcement authority for shore power regulations, requiring reductions in emissions from ship auxiliary engines through year 2020 (Title 17, California Code of Regulations, Section 93118.3).
California Coastal Commission (CCC)	Reviews environmental documents to ensure compliance with the Federal Coastal Zone Management Act (CZMA) and consistency with the California Coastal Act; performs a Federal Consistency Determination if ocean disposal of dredge material is proposed; reviews and must approve Port of Los Angeles Master Plan (PMP) amendments.
California Department of Fish and Game (CDFG)	Reviews and submits recommendations in accordance with CEQA. Consultation in accordance with the Fish and Wildlife Coordination Act. Issuance of Memoranda of Understanding and permits pertaining to take of state listed species under the California Endangered Species Act (CESA).
California Department of Transportation (Caltrans)	Permitting authority for highway improvements and rail trackage, connections, and signage during construction operations.
California Office of Historic Preservation	Consultation under Section 106 of the National Historic Preservation Act (NHPA) regarding impacts on cultural resources (e.g., demolition of buildings and structures) listed or eligible for listing on the National Register of Historic Places.
California Public Utilities Commission (CPUC)	Permitting authority for rail trackage, connections, crossings, and signage during construction operations.
California Integrated Waste Management Board (CIWMB)	Statutory and regulatory authority to control the handling and disposal of solid, nonhazardous waste in a manner that protects public safety, health, and the environment. State law assigns responsibility for solid waste management to local governments. Solid waste requiring disposal will be generated from the demolition of existing wharves.
Regional Water Quality Control Board, Los Angeles Region (Los Angeles RWQCB)	Permitting authority for CWA Section 401 Water Quality Certifications; permitting authority for California Waste Discharge Requirements pursuant to the state Porter-Cologne Water Quality Control Act; and responsible for issuance of both construction and industrial National Pollutant Discharge Elimination System (NPDES) stormwater permits under Section 402 of the CWA. Issuing authority of municipal separate storm sewer system (MS4) permit to City of Los Angeles.
California State Lands Commission (CSLC)	Dredging and dredge material disposal activities in state tidelands. The CSLC has oversight responsibility for tidal and submerged lands legislatively granted in trust to local jurisdictions, and has adopted regulations for the inspection and monitoring of marine terminals. The CSLC inspects and monitors all marine facilities for effects on public health, safety, and the environment.
Department of Toxic Substances Control (DTSC) division of the California Environmental Protection Agency (CalEPA)	Regulatory jurisdiction over underground storage tanks (UST) containing hazardous material and implements groundwater monitoring provision of the Resource Conservation and Recovery Act (RCRA). Responsible for general site cleanup outside USTs (such as state Superfund sites).

Table 1-6: Agencies Expected to Use this EIS/EIR

Agency	Responsibilities, Permits, and Approvals
Regional Agencies	
Los Angeles County Fire Department	Licensing and inspection authority for all hazardous waste generation in the City of Los Angeles. Provides regulation and oversight of site remediation projects involving hazardous waste generators, where surface and subsurface soils are contaminated with hazardous substances.
South Coast Air Quality Management District (SCAQMD)	Permitting authority for construction of landfill and operation of pump stations, storage tanks, and terminal facilities; activities involving hydrocarbon-containing soils (Rule 1166); and new or modified sources of air emissions (New Source Review).
Southern California Association of Governments (SCAG)	Responsible for developing regional plans for transportation and federal conformity, as well as developing growth factors used in forecasting air emissions in the South Coast Air Basin.
Local Agencies	
City of Los Angeles Harbor Department (LAHD)	The City of Los Angeles, through its Harbor Department, is the Lead Agency for CEQA and the California Coastal Act, for most projects within the Harbor (via the certified PMP). Other City departments have various approval and permitting responsibilities, however, and are listed separately below for the sake of clarity. Pursuant to its authority, the LAHD could issue permits and other approvals (e.g., coastal development permits, leases for occupancy of Port land, approval of operating, and joint venture or other types of agreements for the operation of facilities) for the proposed Project and alternatives evaluated in this EIS/EIR. LAHD has leasing authority for Port land, permitting authority for engineering construction; and is responsible for general regulatory compliance, PMP amendment and map change (if required), and activities of other City of Los Angeles departments for the proposed Project and alternatives evaluated in this Draft EIS/EIR.
City of Los Angeles Building and Safety Department	Permitting authority for building and grading permits. Approves, in conjunction with City of Los Angeles Bureau of Sanitation, any required "Standard Urban Stormwater Mitigation Plans" or "Site Specific Mitigation Plans." Such plans implement requirements of the MS4 permit that has been issued by Los Angeles RWQCB to City of Los Angeles.
City of Los Angeles Bureau of Engineering	Permitting authority for storm drain connections, permit for discharges of stormwater, permits for water discharges to the wastewater collection system, and approval of street vacations.
City of Los Angeles Bureau of Sanitation	Permitting authority for Industrial Waste Permit for discharges of industrial wastewater to the City sewer system. Approves, in conjunction with City of Los Angeles Building and Safety Department, any required "Standard Urban Stormwater Mitigation Plans" or "Site Specific Mitigation Plans" that may be necessary to implement MS4 permits issued by the regional water quality control board.

Table 1-6: Agencies Expected to Use this EIS/EIR

Agency	Responsibilities, Permits, and Approvals
City of Los Angeles Fire Department	Approval of Business Plan and Risk Management and Prevention Program. Reviews and submits recommendations regarding design for building permit.
City of Los Angeles Transportation Department	Reviews and approves changes in City street design, construction, signalization, signage, and traffic counts.
City of Los Angeles Planning Department	Zone changes or general plan amendments.

1.5 Scope and Content of the Draft EIS/EIR

The scope of this Draft EIS/EIR was defined on the basis of an Environmental Assessment (E/A) Checklist prepared pursuant to NEPA (see Appendix A), an Initial Study (I/S) prepared pursuant to CEQA, and comments received during the Notice of Intent (NOI)/Notice of Preparation (NOP) review process.

The NEPA NOI was published in the *Federal Register* on July 10, 2009 and the CEQA NOP was mailed on July 10, 2009 (see Appendix A). A public scoping hearing was conducted on August 5, 2009 in San Pedro and verbal comments from five individuals were received. The comment period ended August 24, 2009, and 21 comment letters were received. Table 1-7 summarizes key issues raised in the comment letters.

The scope of analysis and technical study work plans, developed as part of preparing this Draft EIS/EIR, were designed to ensure that the comments received from regulatory agencies and the public during the NOI/NOP review process would be addressed. Table 1-6 presents a summary of the key comments received during the NOI/NOP public comment period and references to the sections of this Draft EIR/EIS addressing them.

Table 1-7: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
USEPA	▪ Consider conducting Health Impact Assessment ▪ Have USACE use construction equipment that will meet Tier 3 or cleaner non-road engine standards ▪ Include Draft Conformity Information in the Draft EIS/EIR ▪ Separately characterize maintenance and non-maintenance dredging ▪ Characterize and beneficially reuse sediments ▪ Coordinate dredging activities through the Contaminated Sediment Task Force or the Southern California Dredged Material Management Team ▪ Encourage the use of supplementary cementitious materials in concrete	Chapter 2 – Project Description Section 3.2 – Air Quality Section 3.14 - Water Quality, Sediment & Oceanography
Federal Emergency Management Agency (FEMA)	▪ Provided information on the National Flood Insurance Program (NFIP) floodplain building requirements	Section 3.14 - Water Quality, Sediment & Oceanography
CA Coastal Commission (CCC)	▪ Ocean disposal of dredge material will need a federal consistency certification	Section 3.14 - Water Quality, Sediment & Oceanography
CA Public Utilities Commission (CPUC)	▪ Consider impacts to nearby highway-rail crossing ▪ CPUC approval is necessary for any proposed new rail crossings or modifications to existing crossings	Section 3.6 – Ground Transportation
South Coast Air Quality Management District (SCAQMD)	▪ Expand APL on-dock railyard consistent with the San Pedro Bay Rail Study Update and San Pedro Bay Ports Clean Air Action Plan's overall goal of maximizing on-dock rail ▪ Perform air quality analyses consistent with SCAQMD recommendations (use LST, mobile source HRA, adverse impacts from all phases of construction and operation, and implement mitigation measures)	Chapter 2 – Project Description Section 3.2 – Air Quality, Meteorology, and Greenhouse Gases Section 3 (throughout) (evaluating impacts of on-dock expansion – Alternative 6)
SCAG	▪ Determined the proposed Project is regionally significant ▪ Draft EIS/EIR should reflect recent SCAG forecasts and be consistent with the 2008 RTP	Section 3.6 - Ground Transportation
LA County Metro	▪ Provided guidance on how to perform a Traffic Impact Analysis	Section 3.6 - Ground Transportation
Riverside County Transportation Commission	▪ Evaluate and mitigate Project impacts to transportation and air quality in Riverside County, individually and cumulatively	Section 3.2 - Air Quality, Meteorology, and Greenhouse Gases Section 3.6 - Ground Transportation Chapter 4 - Cumulative Impacts

Table 1-7: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
City of Riverside	▪ Evaluate delays (and associated traffic, air quality, and emergency services impacts) at at-grade crossings in Riverside City, individually and cumulatively ▪ Recommended grade separations as mitigation, funded by a cargo container fee ▪ Trains will physically divide an established community	Section 3.2 – Air Quality, Meteorology, and Greenhouse Gases Section 3.6 - Ground Transportation Chapter 4 – Cumulative Impacts
City of Corona	▪ Address indirect impacts of adding rail trips to the BNSF system, including impacts on air quality and traffic ▪ Evaluate time delays (and associated impacts) at crossings due to adding capacity	Chapter 3 (throughout) Section 3.6 - Ground Transportation
City of Commerce	▪ Analyze entire transportation system in Southern California that serve proposed Project ▪ Address operational nexus between the Port and intermodal facilities in and near Commerce ▪ Recommended the Port of Los Angeles participate with the City of Commerce in an overall mitigation strategy given sensitive land uses and receptors in Commerce.	Chapter 2 – Project Description Section 3.2 – Air Quality, Meteorology, and Greenhouse Gases Section 3.6 - Ground Transportation Section 3.11 - Noise Chapter 4 - Cumulative Impacts
City of Rancho Palos Verdes (RPV)	▪ Address potential aesthetic impacts to RPV ▪ Expand scope of evaluations to include RPV, San Pedro, Harbor City, and Wilmington ▪ Combine Alternatives 1b and 2	Section 3.1 – Aesthetics and Visual Resources Section 3.6 - Ground Transportation Section 3.11 - Noise
Natural Resources Defense Council	▪ Discuss purpose and need given the economic downturn ▪ Establish a CEQA baseline of July 2008 to July 2009, rather than April 2008 to March 2009 ▪ Consider a wider range of alternatives, such as electrifying the entire terminal, optimizing existing lands, and expanding on-dock rail facilities ▪ Ensure that all alternatives will be compatible with the alternative conveyance system identified in the Clean Air Action Plan ▪ Examine differentiated pricing or a ban on non-electric trucks that are carrying loads to near-dock railyards	Chapter 1 – Introduction Chapter 2 – Project Description

Table 1-7: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
Coalition for Clean Air	▪ Include alternatives of electrifying the entire terminal, optimized efficiencies without expansion, and maximized habitat restoration ▪ Ensure Project is compatible with and enables proposed alternative container transport systems and an on-dock rail facility to the north of the Project site ▪ Evaluate emissions from the production and transport of the concrete wharf, or analyze the possibility of using alternative content or materials ▪ Evaluate effects of dredging and construction activities on the shallow water habitat ▪ Evaluate all options for disposal of dredge materials ▪ Evaluate traffic, air quality, and noise impacts of construction and operations involved in relocating or modifying gates and entry lanes ▪ New and replaced buildings should be deconstructed rather than demolished, and rebuilt with sustainable materials and according to sustainable standards ▪ Evaluate impacts from handling hazardous materials ▪ Evaluate whether Project will result in exceeding the stormwater drainage system capacity and whether the Project results in substantial additional sources of polluted runoff	Chapter 2 – Project Description Section 3.2 - Air Quality, Meteorology, and Greenhouse Gases Section 3.3 – Biological Resources Section 3.14 - Water Quality, Sediment & Oceanography Section 3.11 - Noise Section 3.6 - Ground Transportation
Coalition for a Safe Environment	▪ Prepare a health impact assessment and fund mitigation ▪ Incorporate the Maximum Achievable Control Technologies (MACT) vs. Best Available Control Technologies (BACT) ▪ Do not rely on CARB or AQMD standards, rules, regulations ▪ Incorporate the Advanced Marine Emissions Control System for ships that have not been retrofitted or built to plug into AMP electric shore power. ▪ Incorporate Maglev ▪ Build the on-dock rail up to the wharf ▪ Include solar and vertical wind axis wind turbines ▪ Incorporate a Migrating Whale Protection Plan ▪ Include an updated business forecast which justifies project ▪ Include a comprehensive nexus study ▪ Finance converting the Alameda Corridor into Maglev or electric ▪ Recommended air and noise mitigation measures such as financing the conversion of the Alameda Corridor facilities to utilize zero emissions technology or creating public health care mitigation trust fund to finance community health clinics, air purification, and sound proofing systems in certain facilities ▪ Extend NOP comment period to 60 days	Chapter 1 – Introduction Chapter 2 – Project Description Section 3.2 - Air Quality, Meteorology, and Greenhouse Gases Section 3.3 – Biological Resources Section 3.11 - Noise

Table 1-7: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
Port Community Advisory Committee (PCAC) EIS/EIR and Aesthetic Mitigation Subcommittee, and 2nd copy Transmitted by Richard Havenick as an individual instead on behalf of the PCAC AQ Subcommittee	▪ Extend NOP comment period to 60 days ▪ Require BACT as part of any modification to the existing lease ▪ Questions the project need in light of economic downturn ▪ Implement operation mitigation plan ▪ Clarify difference between maintenance and expansion dredging ▪ Questions projected capacity of on-dock rail facility ▪ Provide history on the development of the Project site to account for existing site facilities ▪ CEQA Baseline should be July 2008 to June 2009 and be maximum throughput for baseline 1992 EIR ▪ Address non-cancer health effects ▪ The Project shouldn't go forward until Port-wide HRA has been completed ▪ Odor impacts from dredging ▪ Address traffic impacts on evacuation routes and emergency response that result from Project construction and operation ▪ Address impacts to eelgrass shallow water habitat ▪ Address land use, noise, environmental justice, and blight impacts	Chapter 1 – Introduction Chapter 2 – Project Description Section 3.2 - Air Quality, Meteorology, and Greenhouse Gases Section 3.14- Water Quality, Sediment & Oceanography Section 3.6 - Ground Transportation Section 3.3 – Biological Resources Section 3.9 - Land Use Section 3.13 – Public Services & Utilities Chapter 5 - Environmental Justice
John Miller, Kathleen Woodfield	▪ Questions the project need in light of economic downturn ▪ Include an alternative that would increase the terminal's efficiency without increasing the footprint	Chapter 1 – Introduction Chapter 2 – Project Description
California Division of Oil and Gas	▪ Provided information on abandoned oil wells	N/A
Scoping Meeting Comments (August 5, 2009)	▪ Key issues raised at the Scoping Meeting largely mirrored written comments ▪ EIRs are too long and need to be more reader friendly ▪ Address the gaps between the last EIR and the proposed EIR ▪ Address traffic impacts west of the Harbor Freeway ▪ Port should take responsibility for project overruns (cumulative impacts)	Chapter 1 – Introduction Chapter 2 – Project Description Section 3.6 - Ground Transportation Chapter 4 - Cumulative Impacts

1.5.1 Scope of Analysis

This Draft EIS/EIR has been prepared in conformance with NEPA (42 U.S.C. Section 4321 *et seq.*), the USACE NEPA Implementing Regulations at 33 CFR Parts 230 and 325; CEQA (California PRC Section 21000 *et seq.*); the State CEQA Guidelines (14 CCR Section 15000 *et seq.*); and City of Los Angeles *L.A. CEQA Thresholds Guide*. This document includes all of the sections required by NEPA and CEQA.

The criteria for determining the significance of environmental impacts in this Draft EIS/EIR analysis are described in the section titled "Significance Criteria" under each resource topic in Chapter 3. The threshold of significance for a given environmental effect is the level at which the LAHD or USACE finds a potential effect of the proposed Project or alternative to be significant.

Under CEQA, a "threshold of significance" can be defined as a "quantitative or qualitative standard, or set of criteria, pursuant to which significance of a given environmental effect could be determined" (CEQA Guidelines, Section 15064.7 [a]). Except as noted in particular sections of the document, the Port has adopted the City of Los Angeles *L.A. CEQA Thresholds Guide* for purposes of this Draft EIS/EIR (City of Los Angeles, 2006). Likewise, the USACE has adopted the City of Los Angeles *L.A. CEQA Thresholds Guide* for purposes of this Draft EIS/EIR to achieve its NEPA responsibilities, unless otherwise noted in particular sections of the document.

The scope of the federal review is normally defined by 33 CFR Part 325, Appendix B, which states:

> *…the [USACE] district engineer should establish the scope of the NEPA document to address the impacts of the specific activity regarding the Department of the Army (DA) permit and those portions of the entire project over which the district engineer has sufficient control and responsibility to warrant Federal review.*

USACE regulations require the USACE to determine if its "scope of review" or "scope of analysis" should be expanded to account for indirect and/or cumulative effects of the issuance of a permit (Appendix B in 33 CFR 325). The four factors considered in determining "sufficient control and responsibility" include:

- Whether or not the regulated activity comprises merely a link in a corridor-type project
- Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity affect the location and configuration of the regulated activity
- The extent to which the entire project will fall within USACE jurisdiction
- The extent of cumulative federal control and responsibility

A detailed discussion of the evaluation of the proposed Project with regards to the four factors is in Section 2.7 of this EIS/EIR (in Chapter 2, Project Description). Considering all four factors, the USACE has determined that the federal direct and indirect scope of analysis should consist of: 1) work (including construction dredging) and placement of structures in and over waters of the U.S.; 2) the adjacent upland area expected to be used temporarily for staging and storage of equipment and materials to complete the in-water and over-water activities (i.e., an approximately 100-foot-wide strip of upland area adjacent to the shoreline); and, 3) development of the 41-acre landfill constructed as part of the Channel Deepening project for container terminal operations (shown in Figure 2-2). The federal analysis would also include any ocean transport and disposal of the dredged material to designated ocean disposal site(s), as well as any beneficial reuse of dredged material in waters of the U.S.

The USACE has no authority or responsibility to regulate activities, such as upland operations, that are presently occurring or could occur absent a USACE permit. These activities and resulting conditions, therefore, comprise the NEPA Baseline, which is discussed in Section 2.6.2 of the EIS/EIR.

The scope of analysis for evaluating cumulative impacts is addressed in Chapter 4, Cumulative Analysis, of this EIS/EIR.

Based on the Environmental Assessment Checklist (Appendix A of this Draft EIS/EIR), the USACE has identified potentially significant indirect and cumulative effects within the scope of federal control in uplands that could occur as a result of operation of the proposed Project (directly traceable to the construction of wharves). For example, the approximately 41 acres of land created by the Channel Deepening Project are included, because development and operations on this land would not occur in the absence of a USACE permit.[6] While operational impacts in the uplands are normally outside the jurisdiction of the USACE, NEPA requires the USACE to fully disclose potentially significant indirect and cumulative impacts occurring as a result of a proposed permit action. Therefore, the USACE is preparing an EIS for the proposed action and its alternatives.

Normally, any ultimate permit decision would focus on direct impacts to the aquatic environment, as well as indirect and cumulative impacts in the uplands determined to be within the scope of federal control and responsibility as part of the required public interest review. These impacts typically are defined by comparing the proposed Project or alternative to the NEPA baseline, which analyzes the work and impacts that could occur without a permit from the USACE (see Section 2.6.2 in Chapter 2). The NEPA baseline is equivalent to the No Federal Action Alternative in this case.

[6] While development of this undeveloped area as backlands would not by itself require a federal permit, because the existing terminal is berth-limited, further backland expansion would not occur without additional cranes, which is subject to a federal permit. Thus, the 41-acre fill area would not be developed as backlands without a federal permit for associated cranes.

Additionally, for actions involving CWA Section 404 discharges into waters of the U.S., the USEPA Section 404(b)(1) Guidelines require the USACE to issue a permit only for the least environmentally damaging practicable alternative (LEDPA), which is the most practicable alternative that has the least damage to aquatic resources (40 CFR 230).

The Section 404(b)(1) Guidelines state that no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge that would have less impact on the aquatic ecosystem, provided the alternative does not have other significant environmental consequences (40 CFR Section 230.10[a]).

Because the proposed Project and Project alternatives are not expected to discharge dredged or fill material to Waters of the U.S., a Section 404(b)(1) evaluation is not required.

The following issues are evaluated in this Draft EIS/EIR.

- Aesthetics and Visual Resources
- Air Quality, Meteorology, and Greenhouse Gases
- Biological Resources
- Cultural Resources
- Geology
- Ground Transportation
- Groundwater and Soils
- Hazards and Hazardous Materials
- Land Use
- Marine Transportation
- Noise
- Recreation
- Public Services and Utilities
- Water Quality, Sediments, and Oceanography

This Draft EIS/EIR has been prepared by Camp Dresser and McKee Inc. (CDM) under contract to the Port and has been reviewed independently by USACE and Port staff. The scope of the document, methods of analysis and conclusions represent the independent judgments of the USACE and the Port. Staff members from the USACE, the Port, and CDM who helped prepare this Draft EIS/EIR are identified in Chapter 11, List of Preparers and Contributors.

1.5.2 Intended Uses of This Draft EIS/EIR

This Draft EIS/EIR has been prepared in accordance with applicable federal and state environmental regulations, policy, and law to inform federal, state, and local decision-makers about the potential environmental impacts of the proposed Project and alternatives. As an informational document, an EIS/EIR does not recommend approval or denial of a project. The Draft EIS/EIR is being provided to the public for review, comment, and participation in the planning process. After public review and comment, a Final EIS/EIR will be prepared, including responses to comments on the Draft EIS/EIR received from agencies, organizations, and individuals. The Final EIS/EIR will be distributed to provide the basis for decision-making by the NEPA and CEQA lead agencies and other concerned agencies.

1.5.2.1 USACE Use

The USACE has jurisdictional authority over the proposed Project pursuant to Section 10 of the RHA and potentially Section 103 of the MPRSA; the USEPA also has approval authority for actions involving Section 103 of the MPRSA. The USACE will consider this document in permit actions that the LAHD might undertake to implement the proposed Project or an alternative. This document does not serve as a public notice of application for any Department of the Army (DA) permits at this time. Rather, such public notice of any permit application is being published separately from and concurrently with the public review period for this Draft EIS/EIR.

The USACE's Record of Decision (ROD) will document the decision of the USACE on the proposed action, including issuance of any permit pursuant to Section 10 of the RHA and/or Section 103 of the MPRSA, as well as any required environmental mitigation commitments.

1.5.2.2 LAHD Use

The LAHD has jurisdictional authority over the proposed Project primarily pursuant to the Tidelands Trust, California Coastal Act, and the Los Angeles City Charter. This EIS/EIR will be used by LAHD, as the lead agency under CEQA, in making a decision regarding the construction and operation of the proposed Project or alternative and in informing agencies considering permit applications and other actions required to construct, lease, and operate the proposed Project or alternative. The LAHD certification of the EIR, Notice of Completion, Findings of Fact, and Statement of Overriding Considerations (if necessary) would document the LAHD decision as to the adequacy of the EIR and inform subsequent decisions by the LAHD whether to approve and construct the proposed Project or alternative and whether to modify the existing lease for the Berth 302-305 and grant the necessary operating permits.

Other agencies (federal, state, regional, and local) that have jurisdiction over some part of the proposed Project or a resource area affected by the proposed Project are expected to use this EIS/EIR as part of their approval or permit process as set forth in Table 1-6.

Specific approvals that could be required for this proposed Project include, but are not limited to: Coastal Development Permit, USACE Permit (pursuant to Section 10 of the RHA and potentially Section 103 of the MPRSA), building and safety permits, water quality permits (CWA Section 401 Water Quality Certification,/Waste Discharge Requirements (WDRs) pursuant to the Porter-Cologne Water Quality Control Act, CWA Section 402 NPDES permits), and approval of a lease and construction contracts by the Port and Los Angeles City Council.

Actions that could be undertaken by the LAHD following preparation of the Final EIR include: certification of the EIR, approval of the proposed Project, lease approval, PMP amendments if required, issuance of a Coastal Development Permit, completion of final design, approval of engineering permits, obtaining other agency permits and approvals (e.g., dredge and fill, grading, construction, occupancy, and fire safety), and approval of construction contracts.

1.5.3 Draft EIS/EIR Organization

Table 1-8 contains a list of sections required under NEPA and CEQA and references the specific chapter in this document where the specific information is located. Note that for the sake of efficiency, Chapter 3, the analysis of impacts, considers impacts under CEQA first, then impacts under NEPA, rather than the more traditional format of NEPA then CEQA in recognition of the broader scope of the required CEQA impact analysis. This presentation method allows a more efficient presentation of the NEPA impact analysis.

Table 1-8: Organization and Contents of the Draft EIS/EIR

Draft EIS/EIR Section	Description
Executive Summary	Summary of the proposed Project and alternatives, potential significant impacts and mitigation measures, the environmentally superior alternative (in accordance with CEQA) and the environmentally preferred alternative (in accordance with NEPA), public comments and concerns, and unresolved issues and areas of controversy.
Chapter 1, Introduction	Provides a brief summary of the key project features and elements, an overview of the goods movement chain, a general description of container terminal operations, and a summary of growth projection planning for container throughput in the San Pedro Bay Port Complex. Describes the intended uses of the document and authorizing actions, the purpose of CEQA and NEPA, the proposed Project's relationship to existing plans and policies, the scope and content of the document, and the organization of the document.
Chapter 2, Project Description	Describes the proposed Project, the purpose and need and the objectives of the proposed Project, alternatives initially considered but not carried forward for detailed review, and alternatives evaluated in the document at a detailed level.
Chapter 3, Environmental Analysis	Describes the existing conditions for each environmental resource area, criteria for judging significance of an impact, impact assessment methodology, impacts that would result from the proposed Project and each proposed Project alternative, mitigation measures that would eliminate or reduce significant impacts, and the mitigation monitoring program.
Chapter 4, Cumulative Analysis	Provides a summary of significant cumulative impacts and whether or not the proposed Project or any of the other alternatives makes a cumulatively considerable contribution to that significant impact.
Chapter 5, Environmental Justice	Addresses the possible effects of the proposed Project and each Project alternative on minority and/or low-income populations adjacent to the proposed Project site.
Chapter 6, Comparison of Alternatives	Compares the significant environmental impacts of the proposed Project and proposed Project alternatives and identifies the Environmentally Preferred and Superior Alternatives.
Chapter 7, Socio-Economic Analysis	Identifies the socioeconomic impacts of the proposed Project.
Chapter 8, Growth-Inducing Impacts	Discusses the extent to which the proposed Project would result in growth-inducing impacts.
Chapter 9, Significant Irreversible Changes	Describes the significant irreversible changes to the environment associated with the proposed Project.
Chapter 10, References	Identifies the materials and documents consulted in preparing this Draft EIS/EIR.

Table 1-8: Organization and Contents of the Draft EIS/EIR

Draft EIS/EIR Section	Description
Chapter 11, List of Preparers and Contributors	Lists the individuals involved in preparing this Draft EIS/EIR.
Chapter 12, Acronyms and Abbreviations	Provides the full names for acronyms and abbreviations used throughout this document.
Appendices	Presents additional background information and technical detail for several of the resource areas.

1.6 Key Principles Guiding Preparation of this Draft EIS/EIR

1.6.1 Emphasis on Significant Environmental Effects

This Draft EIS/EIR focuses on the significant environmental effects of the proposed Project and alternatives, and on their relevance to the decision-making process. The following sections describe the general framework for analysis under NEPA and CEQA. These summaries are not meant to capture the legal nuances that have developed through the passage and amendment of various statutes and regulations, and from corresponding judicial decisions; rather, the summaries are meant to communicate a general understanding of these two acts.

NEPA requires the lead federal agency to rely on a "scientific and analytical basis for the comparison of alternatives" (40 CFR 1502.16) in making its decisions. Commonly, when preparing a joint document, the lead federal agency will use the CEQA significance thresholds as the standard or basis for determining a Project's impacts in terms of context and intensity, unless otherwise noted (certain instances are noted in this document).

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

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

This definition does not include strictly economic impacts (e.g., changes in property values) or social impacts (e.g., a particular group of persons moving into an area). The CEQA Guidelines (Section 15131[a]) state that "economic or social effects of a project shall not be treated as significant effects on the environment." However, economic or social effects are relevant to physical effects in two situations. In the first, according to Section 15131(a) of the CEQA Guidelines: "An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes…to physical changes caused in turn by the economic or social changes." In other words, if an economic or social impact leads to a physical impact, this ultimate physical impact would be evaluated in the EIR. In the second instance, according to

Section 15131(b) of the CEQA Guidelines: "Economic or social effects of a project may be used to determine the significance of physical changes caused by the project."

As with economic or social impacts, psychological impacts are outside the definition of the term "environmental." While not specifically discussed in the CEQA Guidelines, the exclusion of psychological impacts was specifically affirmed in the 1999 court decision, *National Parks and Conservation Association v. County of Riverside 71 Cal. App. 4th 1341 and 1364, (1999*.).

In view of these legal precedents, the LAHD is not required to treat economic, social, or psychological impacts as significant environmental impacts absent a related physical effect on the environment. Therefore, such impacts are discussed only to the extent necessary to determine the significance of the physical impacts of the proposed Project and alternatives. Additionally, this EIS/EIR addresses Environmental Justice (Chapter 5) and Socioeconomics (Chapter 7).

1.6.2 Forecasting

In this Draft EIS/EIR, the USACE and LAHD and its consultants have made their best efforts to predict and evaluate the reasonable, foreseeable, direct, indirect, and cumulative environmental impacts of the proposed Project and alternatives. NEPA and CEQA do not require the USACE and LAHD to engage in speculation about impacts that are not reasonably foreseeable (Guideline Sections 15144 and 15145). CEQA does not require a worst-case analysis. Similarly, NEPA does not require a worst-case analysis when confronted with incomplete or unavailable information (40 CFR Section 1502.22).

1.6.3 Reliance on Environmental Thresholds and Substantial Evidence

The identification of impacts as "significant" or "less than significant" is one of the important functions of an EIS/EIR. While impacts determined to be "less than significant" need only be acknowledged as such, an EIR must identify mitigation measures for any impact identified as "significant." In preparing this document, the LAHD has based its conclusions about the significance of environmental impacts on identifiable thresholds and has supported these conclusions with substantial scientific evidence. The USACE has adopted the City of Los Angeles CEQA Thresholds to meet its NEPA responsibilities for this EIS, unless otherwise noted in particular sections of this document for the NEPA analysis.

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

1.6.4 Disagreement Among Experts

During preparation of the Draft EIS/EIR, it is possible that evidence that might raise disagreements will be presented during the public review of the Draft EIS/EIR. Such

disagreements will be noted and will be considered by the decision-makers during the public hearing process. However, to be adequate under CEQA and NEPA, the Draft EIS/EIR need not resolve all such disagreements.

In accordance with the provisions of the CEQA Guidelines, conflict of evidence and expert opinions on an issue concerning the environmental impacts of the proposed Project - when LAHD is aware of these controversies - has been identified in this Draft EIS/EIR. The Draft EIS/EIR has summarized the conflicting opinions and has included sufficient information to allow the public and decision-makers to take intelligent account of the environmental consequences of their actions.

In rendering a decision on a project where a disagreement exists among experts, the decision-makers are not obligated to select the most conservative, environmentally protective or liberal viewpoint. Decision-makers might give more weight to the views of one expert than to those of another and need not resolve a dispute among experts. In their proceedings, the decision-makers must consider the comments received and address any objections, but need not follow said comments or objections so long as the decision-makers state the basis for their decision and the decision is supported by substantial evidence.

1.6.5 NEPA and CEQA Baselines

1.6.5.1 NEPA Baseline

In analyzing a proposed project in a joint NEPA/CEQA format, the USACE may distinguish the scientific and analytical basis for its decisions separately from the CEQA lead agency decision. Fundamental to this analysis is establishing the NEPA baseline. The NEPA baseline for determining significance of impacts is the set of conditions defined by examining the full range of construction and operational activities the applicant could implement and is likely to implement absent federal action, in this case issuance of a permit from the USACE (e.g., air emissions and traffic likely to occur without issuance of a permit to construct wharves or dredge). The NEPA baseline determination is based on direct statements and empirical data from the applicant, as well as on the judgment and experience of the USACE.

For the proposed Project evaluated in this EIS/EIR, under the NEPA baseline scenario, there would be no improvements to the existing container terminal, such as dredging and any associated ocean transport and disposal of the material, wharf construction, or additional cranes. There would also be limited upland improvements as discussed further in Section 2.6.2 in Chapter 2. However, under the NEPA baseline scenario, the existing lease would remain in place through 2027 and current operations would continue at the existing container terminal. Therefore, for this Project, the NEPA baseline is equivalent to the No Federal Action Alternative, and these terms are used interchangeably throughout this document.

Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA baseline is not bound by statute to a “flat” or “no-growth” scenario; therefore, the NEPA baseline could include upland terminal construction and increases in upland operations over the life of a project, which do not require federal action or approval.

1.6.5.2 CEQA Baseline

Section 15125 of the CEQA Guidelines requires EIRs to include a description of the physical environmental conditions in the vicinity of the proposed Project that exists at the time of the NOP. The CEQA baseline is the set of conditions that prevailed at the time the NOP was circulated. For purposes of the EIR, the CEQA Baseline includes the throughput for the 12-month period preceding the NOP date. For the 12-month period (July 2008 through June 2009), the APL Terminal had approximately 291 acres, 12 A-frame cranes, and handled approximately 1.1 million TEUs.

The CEQA baseline represents the setting at a fixed point in time, with no projected growth over time, and differs from the No Project Alternative (discussed in Section 2.6.1) in that the No Project Alternative addresses what is likely to happen at the site over time, starting from the existing conditions, even if the proposed Project is not approved. The No Project Alternative allows for some natural growth at the proposed Project site that would occur without approval of the proposed Project.

1.6.6 Duty to Mitigate

Under NEPA, 40 CFR 1505.3 requires:

> *…mitigation and other conditions established in the environmental impact statement or during its review and committed as part of the decision shall be implemented by the lead agency or other appropriate consenting agency.*

While the USACE could identify and analyze impacts outside its jurisdiction, the USACE limits the placement of special conditions in USACE permits (requirements for mitigation) to areas within USACE jurisdiction (i.e., areas directly subject to its permitting authority under Section 404 of the CWA, Section 10 of the RHA, and Section 103 of the MPRSA). The USACE cannot constrain operations outside its jurisdiction where, absent a USACE permit for construction in navigable waters or discharges into waters of the U.S., the federal government has no authority over operations that could otherwise occur. Therefore, while upland indirect and/or cumulative effects within the USACE scope of analysis (i.e., traceable to the issuance of a permit) may exist and are disclosed in this environmental document, the USACE would not place special conditions on those upland impacts because activities in the uplands are not within the USACE jurisdiction, and some portion of those impacts would occur without a USACE permit. However, it should be noted that mitigation would be applied to address upland impacts under CEQA.

According to Section 15126.4(a) of the CEQA Guidelines, each significant impact identified in an EIR must include a discussion of feasible mitigation measures that would avoid or substantially reduce the significant environmental effect. To reduce significant effects, mitigation measures must avoid, minimize, rectify, reduce, eliminate, or compensate for a given impact of the proposed Project. Mitigation measures must satisfy certain requirements to be considered adequate. Mitigation should be specific, enforceable, define feasible actions that would demonstrably improve significant environmental conditions, and allow monitoring of their implementation. Mitigation measures that merely require further studies or consultation with regulatory

agencies and are not tied to a specific action that would directly reduce impacts, or that defer mitigation until some future time, are not adequate.

Effective mitigation measures clearly explain objectives and indicate how a given measure should be implemented, who is responsible for its implementation, and where and when the mitigation will occur. Implementation of mitigation measures to reduce air quality impacts that are specifically linked to increases in throughput would be implemented as appropriate (i.e., as impacts are triggered). Such an approach would require a commitment to monitor operations, setting standards by which the Port would decide when/whether to implement mitigation. Finally, mitigation measures must be enforceable, meaning that the lead agency must ensure that the measures will be imposed through appropriate permit conditions, agreements, or other legally binding instruments.

CEQA Guidelines, Section 15041, grants public agencies the authority to require feasible changes (mitigation) that would substantially lessen or avoid a significant effect on the environment associated with activities involved in a project. Public agencies, however, do not have unlimited authority to impose mitigation. A public agency might exercise only those express or implied powers provided by law, aside from those provided by CEQA. However, where another law grants discretionary powers to a public agency, CEQA authorizes use of discretionary powers (CEQA Guidelines, Section 15040).

In addition to limitations imposed by CEQA, the U.S. Constitution limits the authority of regulatory agencies. The Constitution limits the authority of a public agency to impose conditions to those situations where a clear and direct connection ("nexus," in legal terms) exists between a project impact and the mitigation measure. Finally, a proportional balance must exist between the impact caused by the proposed project and the mitigation measure imposed upon the project applicant. A project applicant cannot be forced to pay more than its fair share of the mitigation, which should be roughly proportional to the impact(s) caused by the proposed project.

1.6.7 Requirements to Evaluate Alternatives

According to NEPA and CEQA regulations, the alternatives section of an EIS/EIR is required to:

- Rigorously explore and objectively evaluate a range of reasonable alternatives
- Include reasonable alternatives not within the jurisdiction or congressional mandate of the lead agency, if applicable
- Include No Federal Action (NEPA) and No Project (CEQA)
- Develop substantial treatment of each alternative, including the proposed action, so that reviewers could evaluate their comparative merits
- Identify the Preferred Alternative of the lead agency
- Include appropriate mitigation measures (when not already part of the proposed action or alternatives)
- Present the alternatives that were eliminated from detailed study and briefly discuss the reason(s) for elimination

NEPA (40 CFR 1502.14[a]) and CEQA Guidelines (Section 15126.6) require that an EIS and an EIR, respectively, describe a range of reasonable alternatives to a proposed project, or to the location of a proposed project that could feasibly attain most of the basic objectives of the proposed project but would avoid or substantially lessen any significant environmental impacts. According to CEQA Guidelines, the EIR should compare merits of the alternatives and determine an environmentally superior alternative. Section 2.8 in Chapter 2, Project Description, of this Draft EIS/EIR sets forth potential alternatives to the proposed Project and evaluates their suitability, as required by the CEQA Guidelines (Section 15126.6).

Alternatives for an EIS and EIR usually take the form of No Project, No Federal Action (no federal permit; as noted, the No Federal Action Alternative is equivalent to the NEPA baseline in this case), reduced project size, different project design, or suitable alternative project sites (40 CFR 1502.14[c]). The range of alternatives discussed in an EIS need not be beyond a reasonable range (40 CFR 1502.14[a]), and an EIR is governed by the "rule of reason" that requires the identification of only those alternatives necessary to permit a reasoned choice between the alternatives and the proposed project. An EIS and an EIR need not consider an alternative that would be infeasible. CEQA Guidelines Section 15126.6 explains that the evaluation of project alternative feasibility can consider "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site." The EIR is not required to evaluate an alternative whose effects could not be reasonably identified, or whose implementation is remote, speculative, or would not achieve the basic purposes of the proposed Project.

1.7 Port of Los Angeles Environmental Initiatives

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

The Environmental Management Policy includes existing environmental initiatives for the Port and its customers, such as the voluntary Vessel Speed Reduction Program (VSRP), Source Control Program, Least Tern Nesting Site Agreement, Hazardous Materials Management Policy, and the Clean Engines and Fuels Policy. In addition, the Policy encompasses initiatives such as the Environmental Management System (EMS) with the Construction and Maintenance Division of the Port, and a Clean Marina Program. These programs are Port-wide initiatives to reduce environmental pollution. Many of the programs relate to the proposed Project. The following discussion includes details on a number of the programs and their goals.

1.7.1 Port Environmental Policy

The Port is committed to managing resources and conducting Port developments and operations in an environmentally and fiscally responsible manner. The Port strives to improve the quality of life and minimize the impacts of its development and operations on the environment and surrounding communities. This is done through the continuous improvement of its environmental performance and the implementation of

pollution-prevention measures, in a feasible and cost-effective manner that is consistent with the overall mission and goals of the Port and with those of its customers and the community.

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

- Ensure that environmental policy is communicated to Port staff, its customers, and the community
- Ensure compliance with all applicable environmental laws and regulations
- Ensure that environmental considerations include feasible and cost-effective options for exceeding applicable regulatory requirements
- Define and establish environmental objectives, targets, and best management practices (BMPs), and monitor performance
- Ensure the Port maintains a Customer Outreach Program to address common environmental issues
- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations through environmental awareness and communication with employees, customers, regulatory agencies, and neighboring communities

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

1.7.2 Environmental Plans and Programs

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

1.7.2.1 Clean Air Action Plan

The Ports of Los Angeles and Long Beach, with the participation and cooperation of the staff of the USEPA, CARB and SCAQMD, the San Pedro Bay Ports CAAP, a planning and policy document that sets goals and implementation strategies to reduce air emissions and health risks associated with port operations while allowing port development to continue. In addition, the CAAP sought the reduction of criteria pollutant emissions to the levels that assure Port-related sources decrease their "fair share" of regional emissions to enable the Basin to attain state and federal ambient air quality standards. Each individual CAAP measure is a proposed strategy for achieving these emissions reductions goals. The Ports approved the first CAAP in November, 2006. Specific strategies to significantly reduce the health risks posed by air pollution from port-related sources include:

- Aggressive milestones with measurable goals for air quality improvements
- Specific goals set forth as standards for individual source categories to act as a guide for decision-making

- Recommendations to eliminate emissions of ultrafine particulates
- Technology advancement programs to reduce greenhouse gases
- Public participation processes with environmental organizations and the business communities

The CAAP focuses primarily on reducing diesel particulate matter (DPM), along with nitrogen oxide (NOx) and sulfur oxides (SOx). This reduces emissions and health risk and thereby allows for future port growth while progressively controlling the impacts associated with growth. The CAAP includes emission control measures as proposed strategies that are designed to further these goals expressed as Source-Specific Performance Standards which may be implemented through the environmental review process, or could be included in new leases or Port-wide tariffs, Memoranda of Understanding (MOU), voluntary action, grants or incentive programs.

The CAAP Update, adopted in November, 2010 includes updated and new emission control measures as proposed strategies which support the goals expressed as the Source-Specific Performance Standards and the Project-Specific Standards. In addition, the CAAP Update includes the recently developed San Pedro Bay Standards which establish emission and health risk reduction goals to assist the ports in their planning for adopting and implementing strategies to significantly reduce the effects of cumulative port-related operations.

The goals set forth as the San Pedro Bay Standards are the most significant addition to the CAAP and include both a Bay-wide health risk reduction standard and a Bay-wide mass emission reduction standard. Ongoing Port-wide CAAP progress and effectiveness will be measured against these Bay-wide Standards which consist of the following reductions as compared to 2005 emissions levels:

- Health Risk Reduction Standard: 85 percent reduction in DPM by 2020
- Emission Reduction Standards:
  - By 2014, reduce emissions by 72 percent for DPM, 22 percent for NOx, and 93 percent for SOx
  - By 2023, reduce emissions by 77 percent for DPM, 59 percent for NOx, and 92 percent for SOx

The Project-Specific Standard remains as adopted in the original CAAP in 2006, that new projects meet the 10 in 1,000,000 excess residential cancer risk threshold, as determined by health risk assessments conducted subject to CEQA statutes, regulations and guidelines, and implemented through required CEQA mitigations and/or lease negotiations. Although each Port has adopted the Project Specific Standard as a policy, the Boards of Harbor Commissioners retain the discretion to consider and approve projects that exceed this threshold if the Board deems it necessary by adoption of a statement of overriding considerations at the time of project approval.

This Draft EIS/EIR analysis assumes compliance with the CAAP. Proposed Project-specific mitigation measures applied to reduce air emissions and public health impacts are consistent with, and in some cases exceed, the emission-reduction strategies of the CAAP.

1.7.2.2 Water Resources Action Plan (WRAP)

Both the LAHD and Port of Long Beach face ongoing challenges from contaminants that remain in Port sediments, flow into the harbor from port land, and flow from upstream sources in the watershed, well beyond the ports' boundaries. Therefore, the Ports undertook a collaborative, scientific effort to address existing and potential sources of water and sediment pollution. Building on the collaborative model developed by the CAAP, the Port Complex under the WRAP will continue to work together and with other stakeholders to achieve further progress in water and sediment quality improvement. The WRAP establishes a program of water quality improvement measures necessary to achieve the goals and targets that will be established by the Los Angeles RWQCB in upcoming regulations. The WRAP targets the four basic types of potential sources of pollutants to harbor waters (land use discharges, on-water discharges, sediments and watershed discharges) and includes control measures zeroing in on known and potential sources of water and sediment contamination in the harbor area (POLA and POLB, 2009).

1.7.2.3 Port of Los Angeles Sustainable Construction Guidelines

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

The intent of the Guidelines is to facilitate the integration of sustainable concepts and practices into all capital projects at the Port and to phase in the implementation of these procedures in a practical, yet aggressive, manner (LAHD, 2008). These guidelines will be made a part of all construction specifications advertised for bids.

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

- All ships and barges used primarily to deliver construction-related materials for LAHD construction contracts shall comply with the VSRP and use low-sulfur fuel within 40 nautical miles of Point Fermin,
- Harbor craft shall meet USEPA Tier-2 engine emission standards, and the requirement will be raised to USEPA Tier-3 engine emission standards by January 1, 2011,
- All dredging equipment shall be electric,
- On-road heavy-duty trucks shall comply with USEPA 2004 on-road emission standards for inhalable particulate matter (PM_{10}) and NO_X and shall be equipped with a CARB-verified Level 3 device. Emission standards will be raised to USEPA 2007 on-road emission standards for PM_{10} and NO_X by January 1, 2012,
- Construction equipment (excluding on-road trucks, derrick barges, and harbor craft) shall meet Tier 2 emission off-road standards. The requirement will be raised to Tier 3 by January 1, 2012, and to Tier 4 by January 1, 2015. In addition, construction

equipment shall be retrofitted with a CARB-certified Level 3 diesel emissions control device,

- Comply with SCAQMD Rule 403 regarding fugitive dust, and other fugitive dust control measures, and
- Additional Best Management Practices, based largely on Best Available Control Technology (BACT), will be required on construction equipment (including on-road trucks) to reduce air emissions further.

1.7.2.4 Other Environmental Programs

1.7.2.4.1 Air Quality

Alternative Maritime Power. AMP reduces emissions from container vessels docked at the Port. Normally, ships shut off their propulsion engines when at berth, but use auxiliary diesel generators to power electrical needs such as lights, pumps, and refrigerator units. These generators emit an array of pollutants, primarily NO_X, SO_X, and particulate matter (PM_{10} and $PM_{2.5}$). The Port is beginning to provide shore-based electricity as an alternative to running the generators (a process also referred to as cold ironing). The AMP program allows ships to "plug-in" to shoreside electrical power while at dock instead of using on-board generators, a practice that will dramatically reduce emissions. Before being used at the Port, AMP was used commercially only by the cruise ship industry in Juneau, Alaska. Now, AMP facilities have been installed and are currently in use at China Shipping and the Yusen Terminals with plans for additional facilities at the Evergreen Terminal, TraPac Terminal, and Cruise Ship Terminal, among others. AMP has been incorporated into the CAAP as a project-specific measure.

Off-Peak Program. Extending cargo terminal operations by five night and weekend work shifts, the Off-Peak Program, managed by PierPASS (an organization created by marine terminal operators) has been successful in increasing cargo movement, reducing the waiting time for trucks inside port terminals, and reducing truck traffic during peak daytime commuting periods.

On-Dock Rail and the Alameda Corridor. Use of rail for long-haul cargo is acknowledged as an air quality benefit. Four existing on-dock railyards at the Port, including the existing on-dock facility on the proposed Project site (another two on-dock yards are proposed – refer to Figure 1-8), significantly reduce the number of short-distance truck trips (the trips that normally would convey containers to and from off-site railyards). Combined, these intermodal facilities eliminate an estimated 1.4 million truck trips per year, and the emissions and traffic congestion that go along with them. A partner in the Alameda Corridor project, the Port is using the corridor to transport cargo to downtown railyards at 10 to 15 miles per hour faster. Use of the Alameda Corridor allows cargo to travel the 20 miles to downtown Los Angeles at a faster pace and promotes the use of rail versus truck. In addition, the Alameda Corridor eliminates 200 rail/street crossings and emissions produced by cars with engines idling while the trains pass.

Tugboat Retrofit Project. The engines of several tugboats in the Port were replaced with ultra-low-emission diesel engines. This was the first time such technology had been applied to such a large engine. Emissions testing showed a reduction of more than 80 tons of NO_X per year, nearly three times better than initial estimates. Under the Carl

Moyer Program,[7] the majority of tugboats operating in the Port Complex have been retrofitted.

Electric and Alternative Fuel Vehicles. The Port has converted more than 35 percent of its fleet to electric or alternative-fuel vehicles. These include heavy-duty vehicles and passenger vehicles. The Port proactively has embarked on the use of emulsified fuels that are verified by CARB to reduce diesel particulates by more than 60 percent compared to diesel-powered equipment.

Electrified Terminal Operating Equipment. The 57 ship-loading cranes currently in use at the Port operate under electric power. In addition, numerous other terminal operations equipment has been fitted with electric motors.

Yard Equipment Retrofit Program. Over the past 5 years, DOCs have been applied to nearly all yard tractors at the Port. This program has been carried out with Port funds and funding from the Carl Moyer Program.

Vessel Speed Reduction Program. Under this voluntary program, oceangoing vessels slow to 12 knots when within 20 nautical miles of the entrance to Los Angeles Harbor, thus reducing emissions from main propulsion engines. Currently, approximately 70 percent of ships comply with the voluntary program.

Greenhouse Gas Reduction. Under a December 2007 agreement with the Attorney General's office, the Port will conduct a comprehensive inventory of port-related greenhouse gas (GHG) emissions, tracking these emissions from their foreign sources to domestic distribution points throughout the United States. The Port will report this data annually to the California Climate Action Registry. The annual report will include emissions of all ships bound to and from the Port terminals, encompassing points of origin and destination; emissions of all rail transit to and from Port terminals, encompassing major rail cargo destination and distribution points in the United States; and emissions of all truck transit to and from Port terminals, encompassing major truck destinations and distribution points. The Port-wide inventory will be conducted

[7] The Carl Moyer Program is a grant program implemented by CARB and administered by the SCQAMD to fund the incremental cost of cleaner-than-required engines.

annually until Assembly Bill (AB) 32 regulations become effective.[8] Under the agreement, the Port will also construct a 10-megawatt photovoltaic solar system to offset approximately 17,000 metric tons of carbon dioxide equivalent annually. In addition to the recent agreement with the Attorney General, many of the environmental programs described in this section such as the Green Terminal Program, the Recycling Program, the Green Ports Program, and all of the air quality improvement programs described above, will serve to reduce GHG emissions.

1.7.2.4.2 Water Quality

Clean Marinas Program. To help protect water and air quality in the Harbor, the Port is developing a Clean Marinas Program. The program advocates that marina operators and boaters use BMPs - environmentally friendly alternatives to some common boating activities that could cause pollution or contaminate the environment. The program also includes several innovative clean water measures unique to the Port. The Clean Marinas Program features voluntary components and measures required through Port leases, CEQA mitigation requirements, or established federal, state, and local regulations.

Water Quality Monitoring. The Port has been monitoring water quality at 31 established stations in San Pedro Bay since 1967, and the water quality today at the Port is among the best of any industrialized port in the world. Samples are tested on a monthly basis for dissolved oxygen (DO), biological oxygen demand (BOD), and temperature. Other observations are noted, such as odor and color, as well as the presence of oil, grease, and floating solids. The overall results of this long-term monitoring initiative show the tremendous improvement in Harbor water quality that has occurred over the last four decades.

Inner Cabrillo Beach Water Quality Improvements. The Port is one of the few industrial ports in the world to have a swimming beach. Inner Cabrillo Beach provides quiet water for families with small children. However, in recent years, upland runoff has resulted in high levels of bacteria in shoreline waters. The Port has invested hundreds of thousands of dollars in water circulation/quality models and studies to investigate the problem. Recently, the Port repaired storm drains and sewer lines, replaced poor quality beach sand with clean sand, removed the groin at the north end of the beach, and installed a bird exclusion device, all as part of its commitment to make sure that Inner Cabrillo Beach continues to be an important regional recreational asset, but more importantly – improve water quality.

1.7.2.4.3 Habitat Management and Endangered Species

California Least Tern Site Management. The federal- and State-endangered California least tern (a species of small sea bird) nests from April through August on Pier 400 in the Port adjacent to the Pier 400 container terminal. Through an interagency nesting site agreement, the Port maintains, monitors, and protects the approximately 15-acre nesting site on Pier 400.

[8] The California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32, requires CARB to adopt regulations to require the reporting and verification of statewide GHG emissions and to monitor and enforce compliance with the program. In general, the bill requires CARB to reduce statewide GHG emissions to the equivalent of those in 1990 by 2020.

Interagency Biomitigation Team. As part the development of mitigation for the Deep-Draft Navigation Improvements, including the Pier 400 Landfill, the Port Complex helped establish an interagency mitigation team to evaluate and provide solutions for impacts of landfill and terminal construction on marine resources in the ports. The primary agencies involved include the USACE, USFWS, NMFS, and the CDFG. A number of mitigation agreements have been established through this coordination, and it continues to meet as necessary to address environmental issues associated with Port development and operations.

1.7.2.4.4 General Port Environmental Programs

Green Building Policy. In August 2007, the Port adopted a Green Building Policy, which outlines the environmental goals for newly constructed and existing buildings, dictates the incorporation of solar power and technologies that are efficient with respect to the use of energy and water, dedicates staffing for the advancement and refinement of sustainable building practices, and maintains communication with other City Departments for the benefit of the community. The policy incorporates sustainable building design and construction guidelines based on the United States Green Building Council - Leadership in Energy and Environmental Design (USGBC - LEED) Green Building Rating System (POLA, 2007).

Recycling. The Port incorporates a variety of innovative environmental ideas into its construction projects. For example, when building an on-dock rail facility, the Port saved nearly $1 million and thousands of cubic yards of landfill space by recycling existing asphalt pavement instead of purchasing new pavement. The Port also maintains an annual contract to crush and recycle broken concrete and asphalt. In addition, the Port successfully has used recycled plastic products, such as fender piles and protective front-row piles, in many wharf construction projects.

1.7.3 Port of Los Angeles Leasing Policy

On February 1, 2006, the Harbor Commission approved a comprehensive Leasing Policy for the Port that not only establishes a formalized, transparent process for tenant selection but also includes environmental requirements as a provision in Port leases (POLA, 2006).

Specific emission-reducing provisions contained in the Leasing Policy that apply to the proposed Project as specific to cargo-handling equipment purchases, which must meet one of the following standards:

- Cleanest available NOx alternative-fueled engine, meeting 0.01 g/bhp-hr PM; or
- Cleanest available NOx diesel-fueled engine, meeting 0.01 g/bhp-hr PM, or, if 0.01 g/bhp-hr PM engines are unavailable;
- Cleanest available engine (either fuel type) and install cleanest Verified Diesel Emissions Controls (VDEC) available.
- Compliance with VSRPs;
- Use of clean AMP or cold-ironing technology, plugging into shore side electric power while at dock, where appropriate;
- Use of low sulfur fuel in main and auxiliary engines while sailing within the boundaries of the South Coast Air Basin; and

- Use of clean, low-emission trucks and locomotives to service the terminal.

1.7.4 Port Community Advisory Committee

The Port Community Advisory Committee (PCAC) was established in 2001 as a standing committee of the Harbor Commission. The purposes of the PCAC are to:

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

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

1.8 Availability of the Draft EIS/EIR

The Draft EIS/EIR for the proposed Project and alternatives is being distributed directly to agencies, organizations, and interested groups and persons for comment during the formal review period in accordance with Section 15087 of the state CEQA Guidelines and 40 CFR Section 1506.10 of the CEQ NEPA Regulations. Due to the size and complexity of this Draft EIS/EIR, the 45-day comment period has been extended to 60 days. During the 60-day public review period, which begins on December 16, 2011, and ends on February 17, 2012, the Draft EIS/EIR is available for general public review at the following locations:

LAHD
Environmental Management Division
425 South Palos Verdes Street
San Pedro, California 90731

Los Angeles Public Library
Central Branch
630 West 5th Street
Los Angeles, California 90071

Los Angeles Public Library
San Pedro Branch
921 South Gaffey Street
San Pedro, California 90731

Los Angeles Public Library
Wilmington Branch
1300 North Avalon Boulevard
Wilmington, California 90744

In addition to printed copies of the Draft EIS/EIR, electronic versions are available. Due to the size of the document, the electronic versions have been prepared as a series of PDF files to facilitate downloading and printing. Members of the public can request a CD containing this document. The Draft EIS/EIR is available in its entirety on the Port website at: www.portoflosangeles.org/environment/publicnotice.htm.

The Reader's Guide has been translated into Spanish and is available to the public. To request the Reader's Guide in Spanish, or a copy of the CD mentioned above, please call the Environmental Management Division at (310) 732-3675.

Interested parties may provide written comments on the Draft EIS/EIR, which must be postmarked by February 17, 2012. Please address comments to both:

U.S. Army Corps of Engineers, Los Angeles District
Regulatory Division, Ventura Field Office
Theresa Stevens, Ph.D., Senior Project Manager
2151 Alessandro Drive, Suite 110
Ventura, California 93001

and to

Port of Los Angeles
Environmental Management Division
Christopher Cannon, Director of Environmental Management
425 South Palos Verdes Street
P.O. Box 151
San Pedro, California 90733-0151

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