Chapter 1
Introduction

CHAPTER SUMMARY

The proposed Project involves improvement of the existing Everport Container Terminal at Berths 226–236 on Terminal Island within the Port of Los Angeles (Port). This chapter provides an overview of the Port as a whole, including an overview of the goods movement chain. Refer to Chapter 2, Project Description, for a detailed description of the proposed Project and alternatives to be analyzed.

This chapter presents 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., the Ports of Los Angeles and Long Beach [POLA/POLB], also referred to as the Port Complex).

This chapter also provides an overview of the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) processes, which, respectively, require the preparation of an Environmental Impact Statement (EIS) or Environmental Impact Report (EIR) for projects that could significantly affect the environment. In addition, the chapter contains the following information:

- a summary of the scope and content of this EIS/EIR;
- a description of how the United States (U.S.) 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 the preparation of this EIS/EIR;
- a description of environmental initiatives currently under way to improve the Port setting; and
- a summary of public comments and concerns raised during the scoping process.

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1.1 Introduction

The proposed Project includes improvements to and expansion of the existing Everport Container Terminal currently in operation at Berths 226-236 on Terminal Island in the Port of Los Angeles to accommodate the berthing, loading and unloading of larger vessels, increased throughput, and an increased number of vessels anticipated to call at the Everport Container Terminal in the future.

The proposed Project would require a permit from USACE and approval 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 USACE and an EIR prepared by LAHD. For the proposed Project, a joint EIS/EIR has been prepared to streamline the lead agency's environmental compliance requirements and decision-making processes.

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

The proposed Project and its alternatives are described in detail in Chapter 2, Project Description. The CEQA term 'proposed Project' is used throughout this document rather than the NEPA term 'proposed Action' because 'proposed Project' encompasses the broadest set of proposed Project components. The CEQA term 'proposed Project' includes all proposed Project elements described in Section 2.6 in Chapter 2 of this document, whereas the NEPA term 'proposed Action' (or 'Federal Action') includes only those elements that require federal approval, as described in Section 2.8 of Chapter 2, Project Description, of this Draft EIS/EIR. Therefore, for a more efficient presentation of the elements being proposed, the proposed Project/Action is hereafter referred to as the 'proposed Project.'

Chapter 3, Environmental Analysis, of this Draft EIS/EIR describes the affected environmental resources and evaluates the potential impacts on those resources that are 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 226–236, which constitute the proposed Project.

1.2 Background

1.2.1 Project Location and Brief Project Overview

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 LAHD must give highest priority to navigation, shipping, and necessary support and access facilities to accommodate the demands of foreign and domestic waterborne commerce. LAHD is chartered to develop and operate the Port to benefit maritime uses. It functions as a landlord by leasing Port properties to more than 300 tenants.

The Project site is located at 389 Terminal Way on Terminal Island in the Port of Los Angeles. The existing 205-acre container terminal at the Project site (Berths 226-236) is operated by Everport Terminal Services Inc. (ETS), a wholly owned subsidiary of Evergreen Marine Corporation. ETS is also the permit/lease[1] holder.

The site is generally bounded on the west and northwest by the Main Channel; to the north by State Route 47 and the Yusen Terminals, Inc. (YTI) Container Terminal at Berths 212224; to the east by Los Angeles Export Terminal (LAXT) and ExxonMobil SA Inland Tanks facility; and to the south by the PBF Energy (formerly ExxonMobil) liquid bulk terminal at Berths 238-240, Cannery Street, TriMarine Seafood and both vacant and developed land south of Cannery Street. Land uses in the vicinity of the Project site support a variety of cargo handling operations (including container, liquid bulk, dry bulk) commercial fishing, seafood processing, maritime support, and ship repair.

The existing terminal under the current lease agreement totals approximately 180 acres, which includes approximately 20.5 acres associated with the existing on-dock railyard behind the YTI Container Terminal (behind Berths 217-220), known as the Terminal Island Container Transfer Facility (TICTF). In addition, ETS has an existing space assignment for 25 acres of backland area behind Berths 232-236.

A 1.5-acre parcel and a 22-acre parcel that are currently not under lease to ETS are also being proposed for development and inclusion in the lease footprint (see Figure 2-4 in Chapter 2, Project Description). The 1.5-acre parcel (located adjacent to the 25-acre space assignment and PBF Energy [formerly ExxonMobil] tank storage yard) that is being proposed for development as backlands is vacant and adjacent to the existing terminal, but separated by a chain-link fence. The 22-acre area proposed for development as backlands and the relocation of the main gate (located immediately south of the existing terminal boundary) is currently developed with various structures (including, but not limited to, buildings associated with the former StarKist Tuna Plant, the former Canner's Steam Company Plant, and an electrical substation), vacant parcels, and portions of Terminal Way, Barracuda Street, Tuna Street, and Ways Street.

[1] Although the lease agreement document is Permit No. 888, because there are various permits described in this Draft EIS/EIR, Permit No. 888 is hereafter referred to as 'the lease.'

Construction of the proposed Project would take approximately 24 months to complete, with construction expected to begin 2018. Construction would be performed in a manner that maintains terminal operations. The proposed Project also includes a lease amendment to extend operations of the proposed Project by an additional 10 years to 2038.

The improvements that would occur at the terminal include the following:

- Installation of sheet piles and king piles at Berths 226–229 and 230–232 followed by dredging;
- Installation of spacers between the wharf and existing wharf fenders to provide better clearance between the berthed vessels and the new king and sheet piles;
- Disposal of the dredged materials (approximately 38,000 cubic yards) at an approved ocean disposal site (LA-2) or at an approved upland facility, or a combination of these options;
- Raising of up to five existing cranes and addition of five new 100-foot gauge A-frame over-water gantry (wharf) cranes;
- Addition of five Alternative Marine Power (AMP) vaults;
- Development of approximately 1.5 acres as new backlands;
- Development of approximately 22 acres as new backlands and modified inbound and outbound gates associated with the relocation of the main gate;
- Closure of portions of Terminal Way, Barracuda Street, Tuna Street, and Ways Street within the Project site and rerouting of Terminal Way traffic to Cannery Street;
- Improvements to Cannery Street, including: street realignment, pavement improvements, street widening, striping, traffic lighting and signals, drainage, and sidewalk improvements;
- Infrastructure to support 23.5 acres (1.5 + 22 acres) of new backlands (such as lighting, paving, and drainage improvements);
- Amendment of the lease to add approximately 48.5 acres of terminal backlands (comprised of approximately 25 acres of existing terminal backlands currently under space assignment, and the 23.5 acres of new backland area); and,
- Extension of the facility lease by 10 years for continued operations to 2038.

After completion of the proposed Project, capacity[2] at the Everport Container Terminal is projected to increase from a maximum of 1,818,000 twenty-foot equivalent units[3] (TEUs) (the capacity of the existing terminal) to 2,379,525 TEUs by 2038. For purposes of the CEQA impacts analysis, the 2013 baseline of 1,240,773 TEU's is utilized.

[2] Terminal capacity refers to the theoretical maximum amount of throughput that can move through the terminal given the physical upgrades and all known operational changes.

[3] A TEU is a measure of container cargo capacity based on the volume of a 20-foot-long by 8-foot-wide by 8 ½-foot tall container. When the measure was first developed, shipping containers were generally 20 feet long or 1 TEU. Currently, most containers are 40 feet long or 2 TEUs. See page 1-5 for more information.

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). With respect 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 are generally located in foreign countries, while the consumers are in the U.S.[4] The goods movement chain is a coordinated process that includes shippers, shipping lines, third-party logistics providers, stevedoring companies,[5] 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,[6] which is accomplished through the use of standardized containers that can be easily moved between modes. Figure 1-1 illustrates the flow of containers through the various stages of the goods movement chain.

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

The majority of the goods coming into the Ports arrive in shipping containers that have been transported on container ships. The existing Everport Container Terminal accommodates vessels that transport these shipping containers. It does not handle 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 within the Harbor. Container ships are generally 700 feet to more than 1,000 feet long but are described by the number of TEUs they can carry (from a few thousand to more than 18,000 TEUs).

[4] In 2012, Los Angeles handled two-way trade totaling $403.96 billion and was a major gateway for imports, with inbound shipments accounting for $282.6 billion (70 percent of the value of the freight it handled in 2012) (World City, 2013).
[5] 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.
[6] Intermodal transport is a change in mode of transport (e.g., from ship to truck to rail).

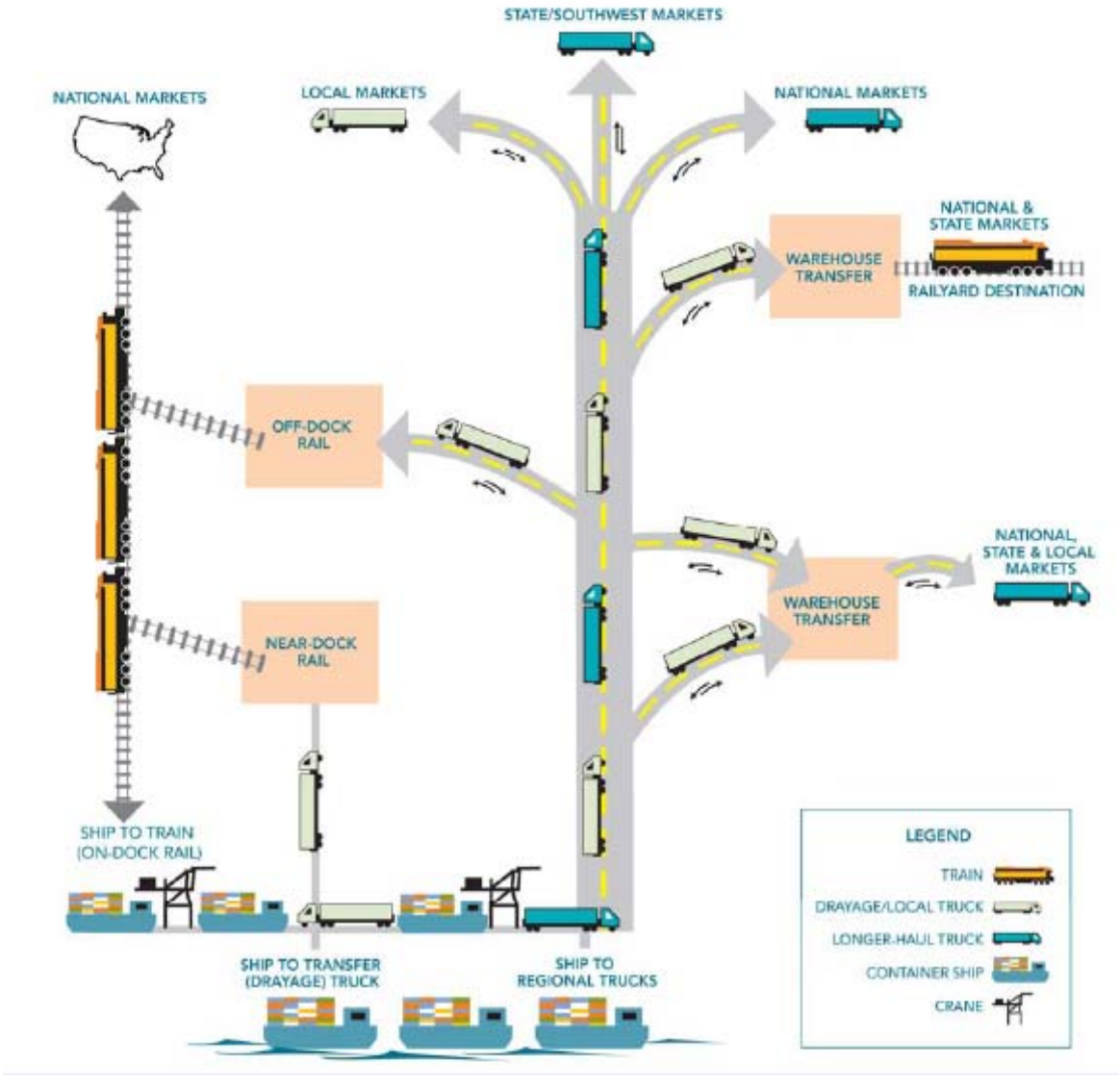


Figure 1-1
Goods Movement Chain: Transportation Distribution

A TEU is a measure of containerized cargo capacity equal to one standard 20-foot-long by 8-foot-wide by approximately 8.5-foot tall shipping container. Presently, most maritime containers are 40 feet long, or two TEUs. To account for the ratio between 20- and 40-foot boxes (and to account for the small number of boxes that are between 45 and 48 feet long), a factor is generally applied to convert TEUs to the actual number of containers. Currently, Port of Los Angeles-wide, this factor is approximately 1.80, meaning one container equals 1.80 TEUs. For example, a ship that holds 2,778 containers would be carrying 5,000 TEUs after application of the conversion factor (or 2,778 x 1.80). 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 1.80 conversion factor.

For this Draft EIS/EIR, the 1.80 conversion factor has been used to model baseline conditions and future scenarios. As detailed in 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 Trend Towards Larger Vessels

Larger vessels are being deployed to reduce container shipping costs. Larger vessels transport more containers resulting in lower average fuel consumption per container, and therefore offering greater economies of scale to shipping lines. Furthermore, the expansion of the Panama Canal, which would double its capacity, has recently been completed and can accommodate the larger 13,000/14,000 TEU vessels. New container vessel deliveries worldwide have increased from 6,600 TEU vessels in 1997 to 15,500 TEU vessels in 2007 (MAN Diesel, 2009). As of 2013, Maersk has deployed 18,000 TEU vessels, and other shipping lines are in the process of deploying even larger vessels. The San Pedro Bay Ports already receive 14,000 TEU vessels and should expect regular calls of 18,000 TEU vessels in the next several years.

Because many terminal berths and cranes within the Port and across the country were not designed to handle these larger vessels that are projected to enter the fleet mix over time, modifications to these facilities and equipment are necessary to allow for the efficient servicing of these vessels. Taller cranes are required to lift from increased stack heights, while a longer reach is required to reach across the additional rows of containers, associated with the larger vessels. In some cases, structural improvements to wharves may be required to support the larger and heavier cranes and/or vessels. Channel and berth deepening may be required to accommodate increases in vessel draft. The Port of Los Angeles and USACE Channel Deepening project was completed in 2013 and involved deepening of the Port's 45-foot deep Main Channel, West Basin Channel and East Basin Channel to a 53-foot depth and is intended to allow for the navigation of these larger vessels in future years (USACE and LAHD, 2009). Container terminal-specific improvements may be required, including berth deepening, larger cranes, wharf improvements, expansion of backlands, and rail improvements to accommodate the larger vessels and associated cargo.

1.2.2.2 Peel Off Yards

As a result of container terminal congestion and the currently trend of larger vessels delivering a higher volume of containers in a single call, the San Pedro Bay Ports began implementing "peel off" yards in early 2015.

A container's movements are generally determined by freight forwarders on behalf of the cargo owners (importers). In addition to arranging the overseas transport of cargo, the freight forwarders make arrangements for a trucking company or train operator to move the inbound containers out of the San Pedro Bay Ports. This process requires the temporary storage of cargo in the backlands and subsequently the sorting of containers once they are ready to be transported by truck or train. (POLB, Cargo Movement In Focus, 2008)

"Peel off" yards offer a less constrained system of moving containers from marine container terminals to inland warehouses and distribution centers. "Peel off" operations involve importing containers belonging to high-volume importers (e.g., "big-box" retailers). The associated containers are stacked together in a single block upon arriving at a marine container terminal. These containers are then picked up by truckers associated with a "peel off" yard. These trucks are expedited through a terminal's gate complex so that the container can be delivered quickly to the near-dock "peel off" yard. The same trucker can then deliver a different container from the peel-off yard to warehouses and distribution centers off-site. (http://www.portoflosangeles.org/newsroom/2015_releases/news_030915_peel_off_program.asp) This process eliminates the sorting through rows and stacks of cargo to access a specific container to be transported by a specific trucking company. In turn, there is a higher rate of container throughput.

The container handling capacity of the peel off yards was estimated using a model which is normally utilized for determining container yard capacities. For peel-off yards, the model was adjusted to reflect an all-wheeled container storage operation. With this assumption, the peel-off yards are expected to add an additional 2.034 million TEUs worth of container handling capacity Port-wide on an annual basis.

1.2.2.3 Container Terminal Overview

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 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. The operational processes for 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 (see Figure 1-2). The Everport Container Terminal operations currently use four rail loading tracks within the TICTF on-dock rail yard (the on-dock rail yard has a total of eight rail loading tracks, four of which are used by the YTI Container Terminal located to the north of the Project area).

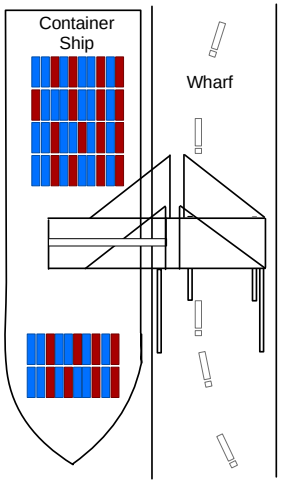
At the Port, LAHD develops and owns major terminal container infrastructure (wharves, container storage yard, and buildings) and leases terminals to terminal operators and/or shipping companies for operation. A container terminal is operated by a terminal operator, which is often a company that is separate from, yet affiliated with, the shipping line. Because many terminal operators are affiliated with shipping lines, these lines often serve as the terminal's primary customers. In the case of the Everport Container Terminal, ETS is both the operator and lease holder. It is assumed that Everport would be the primary shipping line that would be served by the proposed Project.

Terminal operators may also contract with other 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; however, 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 based on requirements to serve the parent company's core businesses.

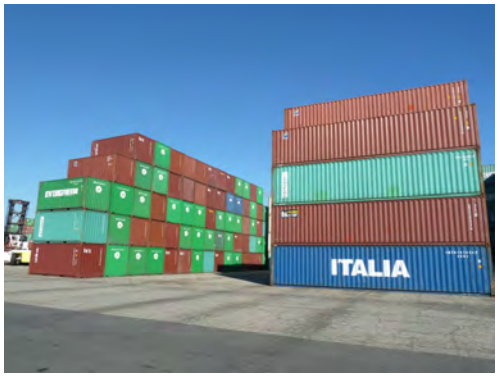
In addition, shipping lines sometimes affiliated with specific container terminals or terminal operators, own and operate the vessels that service the terminal. In order to ensure consistent or regular delivery of goods, shipping lines organize their vessel calls in strings, consisting of one vessel call per week over a year (52 weeks) for Port terminals; thus, one string would be comprised of 52 vessel calls. Sometimes, shipping lines operate half-strings, or 26 annual calls. In addition to the vessel strings, third party invitees may call at the terminal. The total annual vessel calls for a given container terminal is thus typically a multiple of either a full string or half string of vessel calls, plus any third-party invitee ships. In the case of the Everport Container Terminal, future annual vessel calls would be 208, which is equivalent to four strings.

Whereas the vessel calls are structured to offer regular and consistent delivery times, the vessel sizes can vary to accommodate varying throughput levels. Thus, two container terminals with different throughput may have the same annual vessel calls, but a different mix of vessel sizes. In such instances, the container terminal with lower throughput levels could utilize smaller vessels than the terminal with a higher level of throughput.

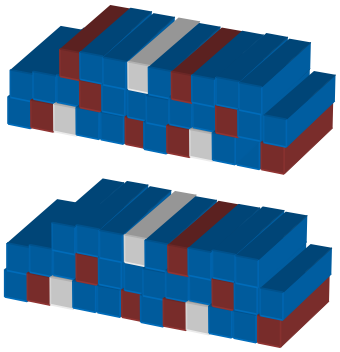
Under the anticipated proposed Project, ETS would own and operate all terminal equipment (such as yard tractors, toppicks, and sidepicks). This includes the wharf gantry cranes (an example is shown on Figure 1-2), which directly affect terminal productivity and require regular maintenance.

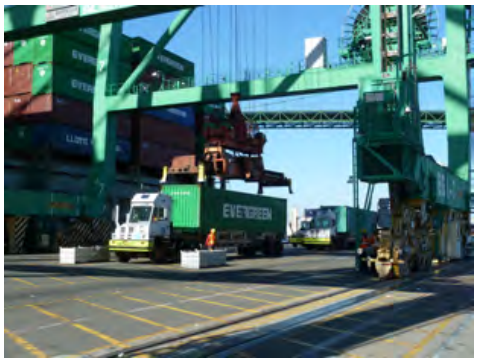


A-frame cranes transfer containers between ship and yard tractors for transport to backlands or on-dock railyard

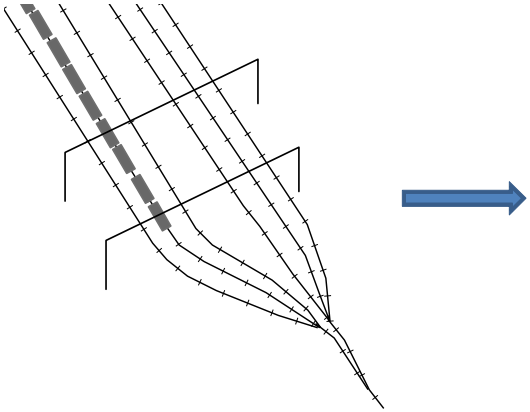


Stacked containers stored in backlands

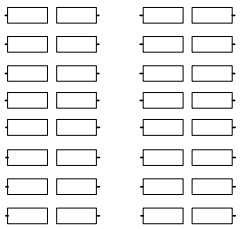




Containers loaded/unloaded to train cars at on-dock railyard



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



Containers on trailers

Figure 1-2
General Container Terminal Operations

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. Although 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; however, the rail companies often subcontract switching activities to another provider. Pacific Harbor Line (PHL) is the rail switching company that is responsible for building the trains that the mainline rail companies will transport outside the Port Complex.

1.2.2.4 Terminal Operations

Operationally, imported containers arrive at, and exported containers depart from, the Port via container ships, typically with the assistance of one or two tugboats. For the Everport Container Terminal, two tugboats per vessel are generally required. When the vessel arrives, most of the export cargo to be loaded is already stacked in the yard. Gangs (groups) of longshore workers, contracted by ETS, work to unload and load the ship using A-frame cranes, as shown on Figure 1-2.

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 three to seven, depending on the size of the ship, the number of vessels at berth, the 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. Traditionally, the main propulsion engine of the ship is shut down, but one or more of the large diesel auxiliary engines runs continuously to provide electrical power for ship functions, including power for refrigerated containers while at berth. A boiler that heats the fuel for the ship also runs while at berth to ensure a constant viscosity. However, the Everport Container Terminal has AMP supply vaults installed at the existing wharf, and as part of the proposed Project, would install additional AMP vaults along the wharf. AMP allows a ship to plug in and use 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. In 2014, the California Air Resources Board (CARB) began mandating that a certain percentage of calling ships use AMP and abide by certain operational constraints. Details regarding these regulations are provided in Table 2-6 in Chapter 2, Project Description, and Section 1.6.8.1, Clean Air Action Plan, of this chapter as well as in Appendix B1 of this Draft EIS/EIR.

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 storage yards using

cargo-handling equipment, which may include electric- or diesel-powered rubber-tire gantry cranes (RTGs), and/or diesel-powered sidepicks, toppicks, and yard tractors. The Everport Container Terminal does not use rail-mounted gantry cranes (RMGs) in its operations. In future years, stricter standards will apply to emissions generated by these equipment types.

Containers are stored on the container yard (backlands) of the terminal using either 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) or a chassis (trailer) or "wheeled" system (where the containers are stored directly on one chassis [or trailer], not stacked). Terminals commonly use a combination of the two storage methods. The Everport Container Terminal uses both the grounded system and chassis storage.

As shown on Figure 1-2, import cargo is shifted to stacks or wheeled trailer locations in the 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 on Figure 1-2, 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 Union Pacific's (UP) Intermodal Container Transfer Facility (ICTF) or Burlington Northern-Santa Fe's (BNSF) Hobart Yard. Import containers are also transported to transloading[7] warehouses or directly to final destinations, such as a retailer or distribution warehouse. At the Everport Container Terminal, imported containers can also be moved through the TICTF (on-dock railyard). On-dock railyards are dedicated to a specific terminal operator and are typically located in the backland area of Port container terminals to enhance the efficient utilization of land and avoid dockside disruption to vessel operations. An on-dock railyard consists of loading rail tracks that are complemented by nearby storage rail tracks to maximize operating efficiency and throughput capacity. They are designed to accommodate various types of container lifting equipment, including rubber-tire gantry cranes, rail-mounted gantry cranes, reach stackers, and toppicks, depending on terminal operator preferences.

Containers destined for export arrive at the gate by truck typically from 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 generally arrive at the terminal via rail and are stored, parked as wheeled cargo, or grounded by toppicks or RTG cranes. Intermodal movement, including factors governing the distribution patterns and mode choices, is discussed in greater detail in Section 1.2.2.5, Port Intermodal Cargo Transport.

The number of containers that pass through a terminal is called its throughput. It 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 periods). Each container terminal has an annual "throughput capacity" (i.e., the anticipated high end of the realistic operating

[7] Transloading is the process of transferring a shipment from one mode of transportation to another. It is most commonly employed when one mode cannot be used for the entire trip. Because of the different capacities of the different modes, the facilities typically require some storage facility, such a warehouse.

range of containers the terminal can handle in a year). As described in Section 1.2.3, San Pedro Bay Ports Cargo Growth and Port Capacity, 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, berth depths, backland area, the ratio of berth length to backland area, and the number and types of equipment in use. To achieve the optimal throughput capacity of the terminals, the various components must not constrain the movement of cargo through the terminals. Optimal throughput capacity is independent of external influences such as economic cycles or disruptions in local, regional, or national transportation systems.

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 capacities 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 berth depths, the number and size of cranes used to load and unload the ships, the amount and shape of backland adjacent to the berth, the adequacy 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 individual shipping company business plans.

1.2.2.5 Port Intermodal Cargo Transport

The Ports serve as a major gateway to international trade because of their location near the Pacific Ocean. The Rail Study Update (Parsons Transportation Group, 2006) estimated that 40 percent of all containerized freight flowing through the nation arrives or departs through the San Pedro Bay Ports. The Ports are a link in the goods movement chain, providing products for the local market in Southern California as well as markets throughout the nation.

The goods movement chain of concern to the proposed Project involves intermodal transport as well as the transportation of freight in containers with use of multiple modes of transportation, such as ship, rail, and truck (Figure 1-2). This is accomplished through the use of containers that can be easily moved between the different modes of transport.

The majority of goods coming into the Ports arrive in shipping containers transported on container ships. Once the containers have been off-loaded from ships onto a marine terminal, they are sorted by destination and transported out of the terminal by truck or train. Containers may be placed on trains inside the terminal (on-dock rail), loaded onto truck chassis (a trailer designed to hold containers) to be hauled to their final destination, or loaded onto truck chassis to be drayed[8] to a railyard outside the terminal (near-dock or off-dock rail). In some cases, cargo transported by truck from the marine terminals is handled or repackaged through a warehouse or distribution center somewhere in the

[8] Drayage: haul on a dray, which formerly referred to a strong cart or wagon without sides. Currently, drayage means the transportation of containerized cargo by specialized trucking companies between railyards, marine terminals, and local warehouses.

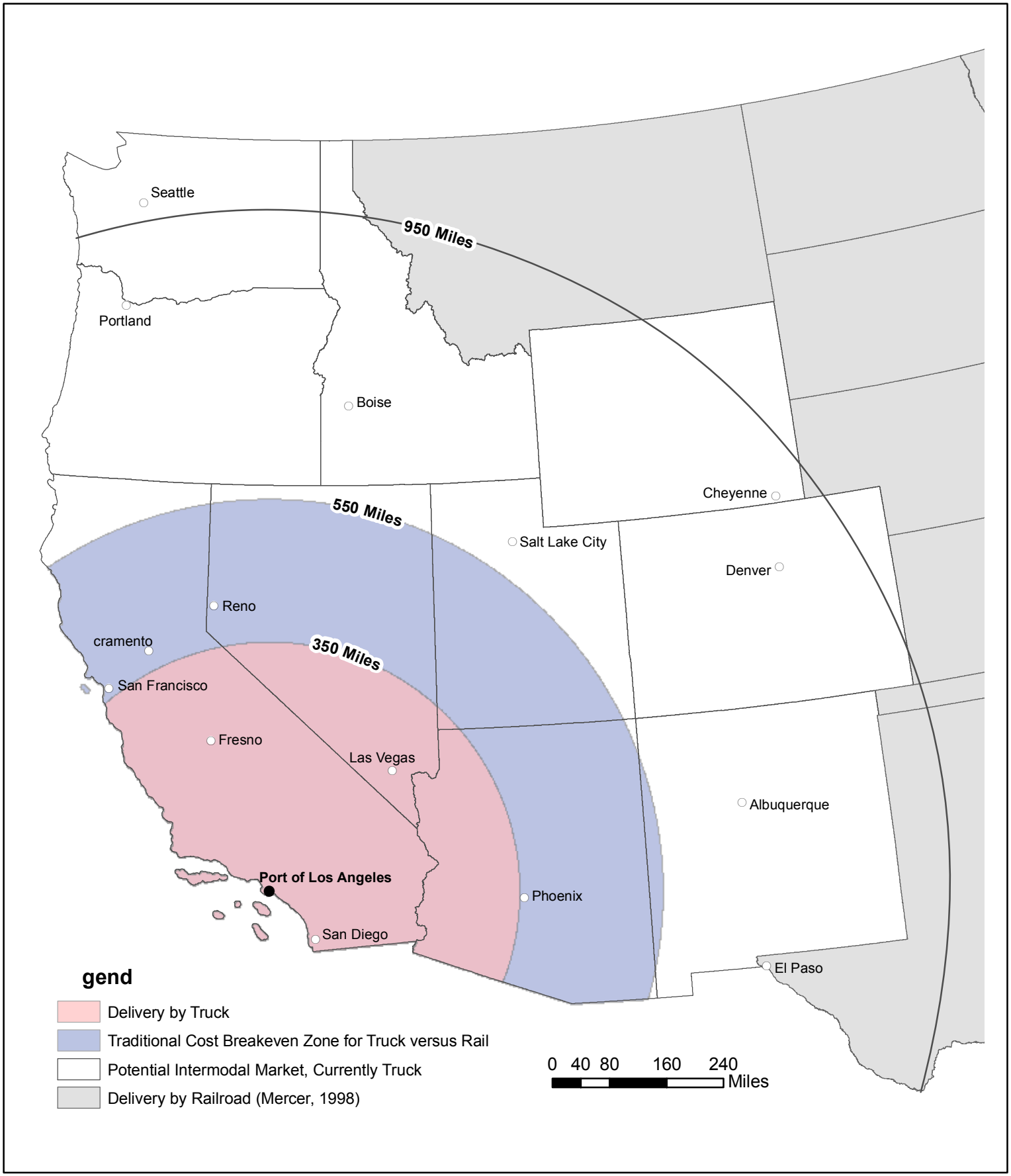
Greater Los Angeles region. This is known as transloading. For containers that are exported, the process is reversed; the containers are transported to the marine terminal via truck or train and then loaded onto ships.

Rail transport of intermodal cargo in and out of the region occurs on a system of rail main lines and supporting railyards. These include the Alameda Corridor, between the port area and major railyards near downtown Los Angeles (see Section 1.2.2.8); several railyards in the area between downtown Los Angeles and San Bernardino; and several main lines heading east and southeast from the various yards. As domestic and international commerce have increased, traffic on the rail system has increased to the point that the capacity of the system to accommodate more trains is a consideration in future planning efforts. The system's capacity to accommodate additional trains is driven by mainline capacity rather than the number of railyards. The system of mainline tracks in Southern California is designed and built to accommodate the anticipated rail activity in the region, both now and in the future. There is a limit to the number of trains each line can handle (i.e., its capacity). Once that capacity is approached, expansion projects would be undertaken by the railroad companies, as the owners and operators of the rail lines, with environmental review as appropriate (individual shippers and carriers would not undertake rail line expansion projects).

Intermodal container movement can be divided into three categories: (1) local transport by truck; (2) transloaded intermodal cargo; and (3) direct intermodal. On the West Coast, cargo with origins and destinations fewer than about 350 miles from the marine terminal is typically transported by truck (Figure 1-3), whereas cargo arriving from or departing to locations more than 550 miles away is typically transported by trains. This pattern is attributable to the fact that the economic breakeven boundary between truck transport and rail transport is between 350 and 550 miles. Cargo bound for destinations more than 950 miles from the marine terminal is moved out of Southern California almost exclusively by rail because of the tremendous cost savings of rail over truck. For large quantities of containerized cargo bound for destinations far inland of the seacoast or on the other side of the country, trains are generally the most cost-effective and the most environmentally beneficial way of getting that cargo to those destinations.

1.2.2.6 Local Transport by Truck

Local transport of containers that arrive at the San Pedro Bay Ports are moved exclusively by truck. This cargo is destined for Southern California or the region west of the Rocky Mountains.



Source: Port of Los Angeles, 2003

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Figure 1-3
Local Cargo Distribution from Port of Los Angeles
Berths 226-236 [Everport] Container Terminal Improvements Project

1.2.2.7 Transloaded Intermodal

Transloaded intermodal cargo consists of containers that arrive at marine terminals and are then drayed to a warehouse or distribution center for processing. Processing can consist of repackaging, sorting, tagging, and/or labeling before being reloaded into containers for transport to their final destinations. There are two types of transloaded intermodal cargo: transloaded trucks and transloaded rail containers (Figure 1-4). For transloaded trucks, after the cargo is repackaged at the warehouse, the containers are transported by trucks to their local or regional destinations. For transloaded rail, after the cargo is repackaged at the warehouse, the containers are transported to an off-dock railyard (see Section 1.2.2.8, below) for eventual transport out of the region by rail to national markets. Transloaded rail is almost always destined for points east of the Rocky Mountains. A study conducted by the Ports of Los Angeles and Long Beach in 2012 determined that approximately 27 percent of the import containers (and their cargo contents) in 2011/2012 were transloaded to 53-foot domestic intermodal rail containers. An additional 13 percent of import containers were transloaded to trucks for regional and western states distribution/delivery. The amount of transloaded import cargo to rail is forecast to be about 30 percent in 2030 (for the purposes of this EIS/EIR, 30 percent is also applied to the 2038 analysis year, the final year analyzed). The amount of transloaded cargo to trucks is forecast to be 13 percent in 2030 (applied to 2038 analysis year).

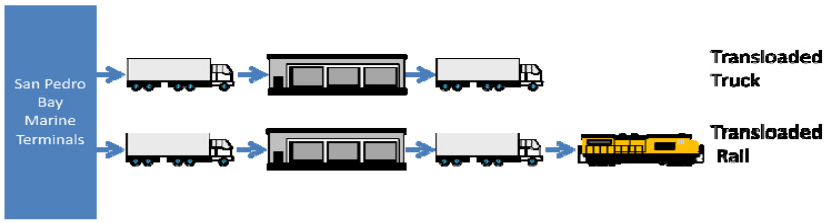


Figure 1- 4: Transloaded Cargo

1.2.2.8 Direct Intermodal

"Direct intermodal" is the movement of containers directly between the Port and a railyard. As shown in Figure 1-5, three types of railyards are used for direct intermodal: on-dock railyards, near-dock railyards, and off-dock railyards. On-dock railyards are located within marine terminals, near-dock railyards are less than five miles from marine terminals, and off-dock railyards are more than five miles from marine terminals. As discussed more fully below, there is no draying of containers associated with on-dock railyards because the railyard is located within the marine terminals, although in-terminal truck movements are needed to re-position containers.

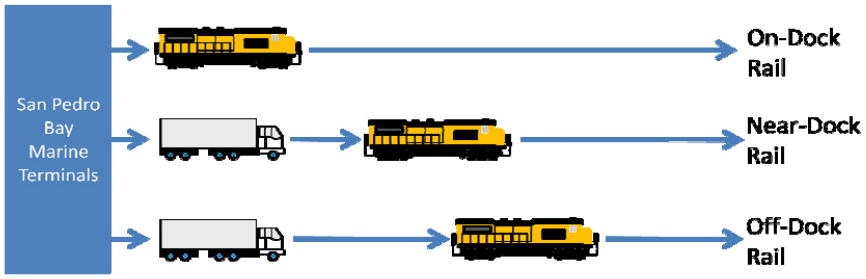


Figure 1-5: Direct Intermodal Cargo Flow

Near- and off-dock railyards do require draying of containers because those railyards are outside of the marine terminals. After containers are sorted and loaded onto railcars at an on-, near-, or off-dock railyard, they are moved by rail to their final destination, which is usually east of the Rocky Mountains. In 2012, on-dock and near/off-dock railyards handled 25 percent and 11.2 percent, respectively, of the containers moved from the Ports. The remaining cargo was moved by truck (including the aforementioned containers with transloaded imported cargo to rail and trucks) primarily to local destinations (see Section 1.2.2.7 for more detail).

The following sections provide a more detailed description of on-dock, near-dock, and off-dock railyards.

On-Dock Rail

On-dock rail allows containers to be loaded at a marine terminal for transport by rail to areas outside the region eliminating the need to dray containers to another rail facility outside the marine terminal. On-dock railyards are located within marine cargo terminals at the Ports (the railyards are never adjacent to the vessel berths, because cargo loading requirements make it impracticable to load containers directly from ships onto trains, but rather at one edge of the terminal). In general, containers are off-loaded from a cargo ship by cranes onto chassis or other trailer-like equipment and moved by yard tractors either directly to a waiting railcar in the on-dock railyard or a designated container staging area in the terminal's backlands. Containers are moved from ships or the terminal's backlands to the railyard without having to go through the terminal gate and onto local roadways.

Typically, trains built on-dock consist of railcars that are all bound for the same destination, although exceptions do occur. Most cargo that cannot fill a single-destination train on-dock is drayed to an off-dock or near-dock railyard to be combined with cargo from other marine terminals headed for the same destination. Some intermodal containers are loaded onto rail cars on-dock, and short blocks of rail cars are transported to near dock railyards for combination with other blocks from other terminals in a single-destination train.

Near-Dock Rail

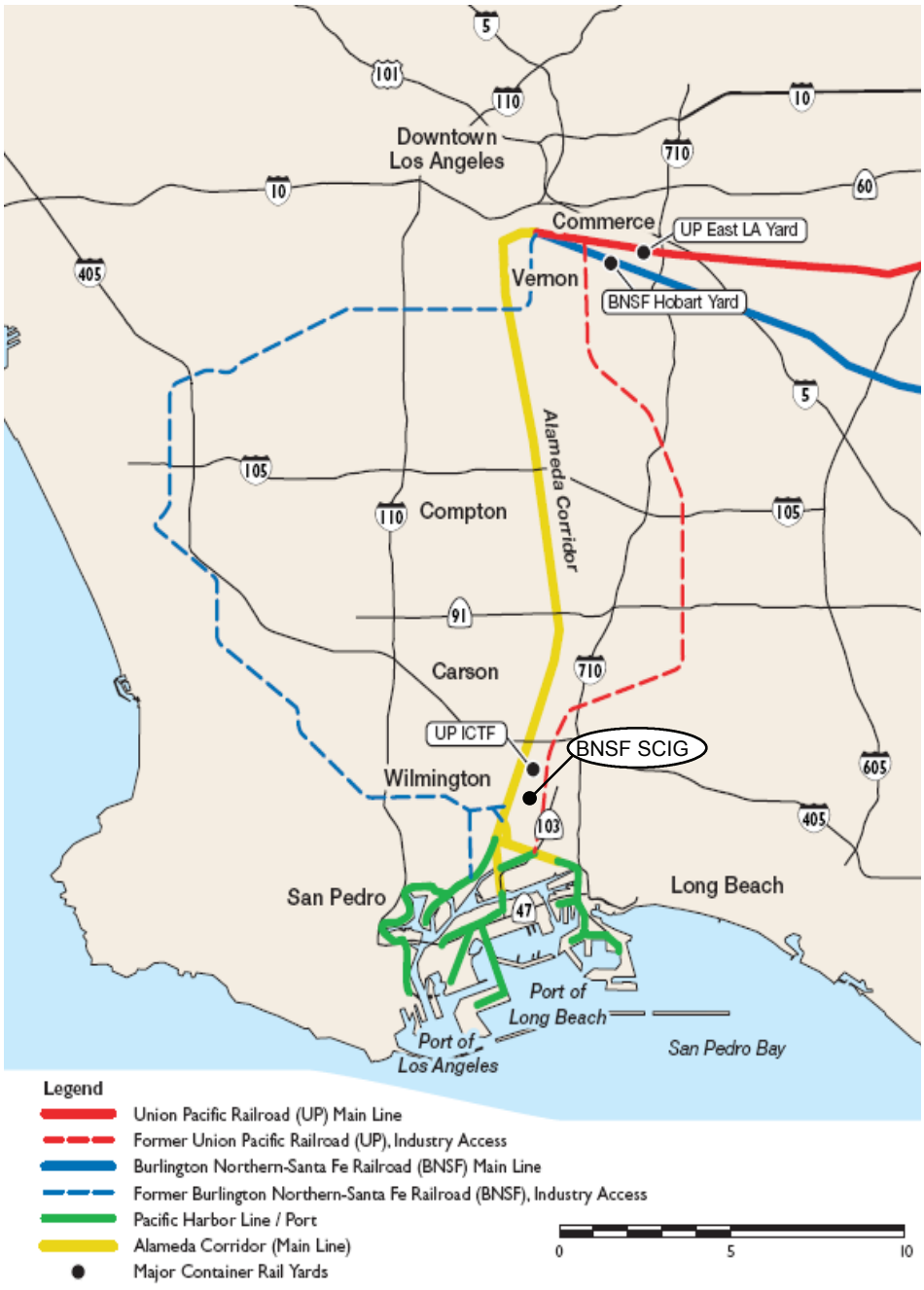
A near-dock railyard is defined as a railyard located less than five miles outside of the marine terminal, thus requiring a short truck trip from the marine terminal to the railyard via the street system. A near-dock railyard permits the railroad to combine cargo from various marine terminals and build trains that efficiently transport cargo to specific destinations throughout the country. For example, a terminal may have enough containers to build a unit train[9] to Chicago but may only have enough containers bound for Kansas to build half a train. The Kansas-bound containers would, therefore, be transported to a near-dock facility to be combined with other Kansas-bound containers from other terminals to make up a 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 (Figure 1-6).

Off-Dock Rail

Off-dock railyards are located farther (more than five miles) from marine terminals. Currently, there are five off-dock railyards in the region, three operated by UP and two operated by BNSF, but only two handle substantial numbers of containers from the San Pedro Bay Ports: the BNSF Hobart/Commerce Yard (Hobart Yard) in Los Angeles/Commerce/Vernon and the UP East Los Angeles Yard (East LA Yard) (Figure 1-6). Both railyards are located near downtown Los Angeles, approximately 24 miles north of the Ports. The remaining off-dock railyards include the UP Los Angeles Trailer and Container Intermodal Facility, the UP City of Industry yard, and the BNSF San Bernardino yard. The East LA and Hobart yards handled most of the international cargo not handled by on-dock yards and the ICTF. All of the off-dock railyards in the region handle more domestic and transloaded containers than international containers.

Off-dock railyards operate in similar fashion to near-dock railyards. Containers are drayed from a marine terminal to an off-dock railyard by truck, generally via Interstate 710. At the off-dock railyard, containers are either immediately loaded onto a railcar or staged temporarily at the railyard until a train bound for the destination of the stored container can be built. Off-dock rail yards can serve multiple marine terminals (including those that do not have on-dock facilities). One drawback of off-dock railyards compared with on-dock or near-dock railyards is that containers must be drayed greater distances, adding to congestion on roadways and increased air emissions in the region and other environmental impacts.

[9] A unit train, also called a block train, is a railway train in which all of the cars that make it up are shipped from the same origin to the same destination, without being split up or stored en route. This saves time and money as well as the hassle, delay, and confusion associated with assembling and disassembling trains at railyards near the origin and destination.



Source: Port of Los Angeles, 2003

Figure 1-6
Location of Existing Near-Dock and Off-Dock Railyards

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 because 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 trackside where a mobile crane lifts the container off the chassis and places it on a railcar for further shipment or lifts a container off of 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 alongside of the tracks. 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 flatcar-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 with a flatcar, which cannot handle double stacking. The standard double-stack car is approximately 265 feet long, although some are as long as 305 feet, 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, approximately 8,000 feet long (including locomotives and inter-car spaces), and able to carry approximately 280 containers.

The average train length handled by the Everport Container Terminal portion of the TICTF is approximately 7,500 feet, 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 at the on-dock facility.

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; as such, more blocks, and therefore more train movements, are necessary. The locomotives are uncoupled and moved to locomotive servicing facilities for necessary inspections, refueling, and servicing. However, many on-dock facilities do not have on-site locomotive servicing facilities so locomotives that frequent such facilities must be moved to the nearest railroad facility such as Watson for BNSF, or Dolores for UP, for servicing. These switching activities are handled by locomotives called "yard locomotives." Such locomotives have less horsepower than "line haul" locomotives, which move completed trains over long distances to their ultimate destinations. Outbound trains are assembled ("built") and then leave the facility in essentially the reverse process, coupling together two or more blocks of railcars to make a full train. The trains then depart after proper inspections and testing.

1.2.3 San Pedro Bay Ports Cargo Growth and Port Capacity

This section presents background information on long-term containerized cargo growth at the Ports. Facilities planning must take into account both the economy's demand for cargo and the capacity of the Ports and associated transportation infrastructure to handle that cargo. Long-term cargo growth forecasts are used as planning tools to understand and predict cargo volumes and Port-related activities for the movement of cargo. Terminal planning involves balancing existing and potential physical and operational capacities with market demand projections for cargo. Thus, the demand forecasts and the capacity modeling demonstrate a need for the Ports to be improved and expanded to accommodate future demand.

1.2.3.1 Cargo Demand Forecast

In the last 40 years, containerized shipping through West Coast ports in the U.S. has increased twentyfold, driven by increasing U.S. trade with Asian economies. In 2010, the value of waterborne trade through West Coast ports reached $494.7 billion; that number increased to $566.3 billion in 2011. Major West Coast ports, particularly the ports of Los Angeles, Long Beach and Oakland, have continued to invest billions of dollars to optimize facilities and accommodate increases in containerized shipping. These ports have deepened their harbors to accommodate large, deep-draft container ships; demolished existing facilities and built new container terminals in their place; and created new land to provide space for additional container terminal backlands. Some marine terminal operators have purchased high-speed cranes, modernized transportation equipment, and increased automation to move containers more rapidly between ships and trucks or trains. These and other improvements represent an ongoing effort to accommodate the anticipated growth in cargo. Major projects are planned for both the Port of Los Angeles and the Port of Long Beach well into the future.

To plan, design, and construct infrastructure, the Ports frequently develop detailed macro-economic cargo forecasts along with detailed terminal capacities (including micro-simulation). Anticipating the continued importance of containerized shipping, the Port of Los Angeles and Port of Long Beach, along with USACE, conducted a series of studies to forecast cargo volumes through 2020 and evaluate the capacity of the San Pedro Bay Ports with respect to accommodating such cargo volumes. The cargo forecasts predicted significant increases in containerized cargo from Pacific Rim countries to the Pacific West Coast and the San Pedro Bay Ports. These forecasts were used as a basis for development of an operations, facilities, and infrastructure study. That study concluded that the Ports needed to provide substantial additional physical facilities and make operational improvements to provide the necessary capacity.

The resulting San Pedro Bay 2020 Plan included the construction of new container terminals and the optimization of existing terminals at the Ports (POLB/POLA, 1990). From the early 1990s to 2007, actual volumes of containerized cargo passing through the two Ports exceeded the forecasts used to develop the San Pedro Bay 2020 Plan. Following the 2020 Plan, the Ports commissioned two market-based forecasts, one in 2007 (The Tioga Group Inc. et al. 2007) and an update in 2009 (The Tioga Group Inc. and IHS Global Insight, 2009). Even with the recession of 2001, up until 2007, the Ports experienced dramatic growth in cargo volumes with an average growth rate of more than

10 percent per year between 1995 and 2006. In 2007, IHS Global Insight and Tioga Group prepared a long-term cargo forecast through 2030 for the Ports (The Tioga Group Inc. et al., 2007). That forecast was a demand-based (i.e., unconstrained) forecast that assumed transportation and infrastructure capacity would be available to meet the demand. The forecast approach was a long-term average trend projection that did not attempt to capture the timing of economic booms and recession cycles but instead plotted the average path around which those cycles would move.

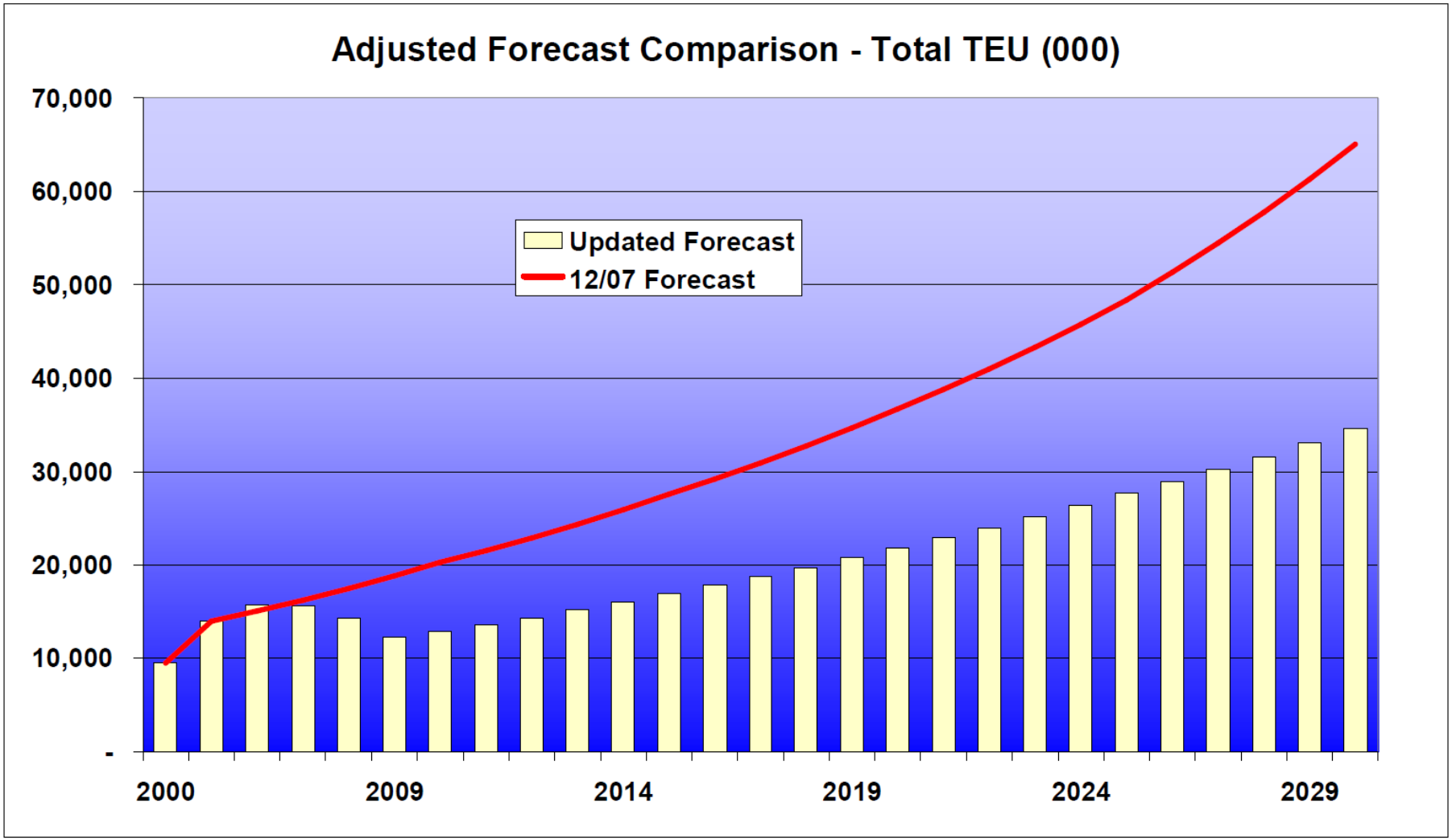
Following the 2007 cargo forecast of 65,100,000 TEUs in 2030, the U.S. and world economies entered a severe recession that dramatically affected international trade, resulting in volumes at the Ports that were significantly below 2006 peak volumes. As a result, the Ports reexamined the forecast cargo projections given the new economic conditions in 2009 (The Tioga Group Inc. and IHS Global Insight, 2009), which started from a lower base volume than the 2007 forecast, and predicted continuing declines in cargo volume through 2009, with 2010 marking the end of the recession and a return to positive cargo growth rates. Essentially, the update predicted that it will take the Ports six to seven years to return to the peak volumes of 2006 and that 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 the old forecasts will widen over time, eventually resulting in a 47 percent gap in 2030.

The 2009 forecast projected an annual throughput of 34,600,000 TEUs through the Port Complex by 2030 (The Tioga Group Inc. and IHS Global Insight, 2009). Figure 1-7 shows the updated forecast compared to the 2007 forecast. The Ports have extended this market forecast to 2035 for use in long-range planning, design, and construction. The additional growth forecast in 2035 is a direct extrapolation of the 2030 volumes, using a growth rate of approximately 4.5 percent until each terminal's physical capacity is reached.

Containerized cargo trade with China is projected to remain the largest and fastest growing segment over the forecast period. Port-wide growth in imports from China are expected to slow from the rates experienced in the early 2000s, averaging 5.5 percent per year between 2020 and 2030. Containerized cargo from Southeast Asia is projected to become the second-largest source of imports by 2030, averaging 4.6 percent per year between 2020 and 2030. Demand for ocean cargo tonnage from Latin American countries through the Ports is projected to increase slowly, reflecting a loss of import market share to Asia (The Tioga Group Inc. and IHS Global Insight, 2009).

1.2.3.2 Container Terminal Capacity

The Ports evaluate the physical/operational capacity of the terminals to provide an accurate and realistic forecast of future cargo throughput. To estimate the future maximum or optimal capacity of each terminal through 2035, the Ports use a methodology that relies on two capacity models, one that analyzes the terminals' backland capacity and one that analyzes the terminals' berth capacity (a terminal could be berth constrained or backlands constrained or evenly balanced between the two). 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 or decreasing the amount of time containers are allowed to remain in the terminal) to



Source: The Tioga Group, Inc., IHS Global Insight, 2009

Figure 1-7
Cargo Forecasts for the San Pedro Bay Port Complex

estimate the future operating capacity of each terminal, including ones projected to be built. The capacity models may be further refined to consider various operational parameters. The assumptions, while reasonable, are not conservative. For example, terminals are assumed to be able to reach throughput levels greater than 10,000 TEUs per acre per year compared with current throughput levels of between 5,000 and 7,000 TEUs per acre. This approach allows the Ports and their businesses to identify shortfalls between future cargo volumes and the capacity of the terminals and supporting infrastructure (e.g., roads and railroads) to handle those volumes.

The results of the capacity modeling show that, even with the assumed changes in physical configurations and operating practices, future throughput at the San Pedro Bay Ports will be constrained at 37,367,000 TEUs (POLA/POLB, 2015). Comparing the unconstrained 2009 market demand forecast with the Ports' estimate of total marine terminal capacity shows that the 2030 cargo demand of 34,600,000 TEUs will not exceed future capacity of 37,367,000 TEUs. Therefore, to identify the year in which demand will reach or exceed capacity, a continual annualized growth rate of approximately 4.5 percent was assumed to extend the forecast until the aggregate capacity of the Ports is reached. The results show cargo volumes increasing from approximately 34,600,000 TEUs in 2030 to approximately 37,367,000 TEUs by 2033.

The environmental analysis in this EIS/EIR assumes that the physical and operational capacities of Port container terminals will be fully utilized by future cargo volumes. Actual throughput might be lower because of changes in consumer demand patterns and/or economic conditions, but for the purposes of this EIS/EIR, it is assumed that the Ports will operate at a maximum capacity of 37,367,000 TEUs by 2033. This fundamental assumption is based on the 2009 cargo forecast and container terminal capacity data available at the time of this analysis.

1.2.3.3 Intermodal Cargo Demand and Capacity

In 2009, approximately 40 percent of all containers were conveyed directly between Port terminals and intermodal rail facilities, with the majority of this cargo being transported via on-dock railyards. In 2013, the direct intermodal share decreased nominally to approximately 35.3 percent; however, direct intermodal cargo (see Section 1.2.2.8 for definitions) has generally remained at around 40 percent for the last 10 to 15 years and is projected to remain at this level for the foreseeable future. Table 1-1 summarizes the Port Complex intermodal projections used in this Draft EIS/EIR. The remaining cargo was handled via trucks for delivery to local and regional locations.

Table 1-1: San Pedro Bay Ports Direct Intermodal Cargo Forecast

Year	2013[a]	2020	2030	2035
Total Port of Los Angeles/Port of Long Beach	14,618,177	21,827,000	34,563,000	37,367,000
On-Dock Railyards	3,617,635	6,272,344	9,978,700	10,336,534
	24.7%	28.7%	28.9%	27.7%
Off-/Near-Dock Railyards	1,530,421	2,458,456	3,846,500	4,610,266
	10.5%	11.3%	11.1%	12.3%
Total Port of Los Angeles/Port of Long Beach Intermodal	35.2%	40%	40%	40%
Transloaded imports to rail, TEU (via 53-foot containers)	2,011,385	3,399,821	5,411,529	5,850,551

Notes:[a] 2013 represents actual intermodal cargo movements.

A key factor in the cargo forecast is the future capacity of on-dock rail facilities and their operational constraints, because direct intermodal cargo that cannot be handled by on-dock yards must be handled by near/off-dock yards. The goal of the Ports is to maximize on-dock rail operations within the Ports as contemplated by the LAHD's Intermodal Rail Policy, adopted in Resolution 6297 on August 11, 2004 (LAHD, 2004), which calls for on-dock and near-dock intermodal facilities for shippers, carriers, terminal operators, and Class I Railroads. To achieve this goal, the Ports encourage the marine terminals to schedule round-the-clock shifts and optimize labor rules, and the railroads have increased their operational efficiencies to increase capacity at on-dock facilities. Furthermore, both Ports plan to expand their rail infrastructure over the next ten years. The proposed changes are expected to increase on-dock rail capacity by more than threefold. Table 1-2 identifies the existing and planned on-dock railyards within the Port Complex, and Figure 1-8 shows the location of each of the on-dock facilities.

If all of the proposed changes can be constructed on the assumed timetable, projected on-dock railyard use will reach approximately 11,500,000 TEUs by 2035.

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Table 1-2: Existing and Planned On-Dock Railyards

On-Dock Rail Facility	Location	Status as of 2015
TICTF	Port of Los Angeles: YTI and Everport Container Terminals	Operating: proposed expansion by YTI, recently approved
Pier 300	Port of Los Angeles: American President Lines Terminal	Operating: proposed expansion
Pier 400	Port of Los Angeles: APM/Maersk Terminal	Operating: proposed expansion
West Basin Intermodal Container Transfer Facility (WBICTF)	Port of Los Angeles: West Basin Container Terminal (serving YML and CS)	Operating: proposed expansion
WB-East (TraPac Container Terminal)	Port of Los Angeles: TraPac	Under construction.
Pier J	Port of Long Beach: SSA Pacific Container Terminal	Operating: proposed expansion on hold
Pier G	Port of Long Beach: International Transportation Services Terminal	Operating: expansion completed for North Railyard; South Railyard renovation proposed
Middle Harbor Terminal (Piers D-F)	Port of Long Beach: Long Beach Container Terminal	Expansion under construction with completion expected end of 2019 (LBCT IY currently operating)
Pier A	Port of Long Beach: SSA Pier A Terminal	Operating: proposed expansion
Pier T	Port of Long Beach: TTI Terminal	Operating: no proposed expansion at this time

Source: LAHD, 2015; POLB person com., 2015

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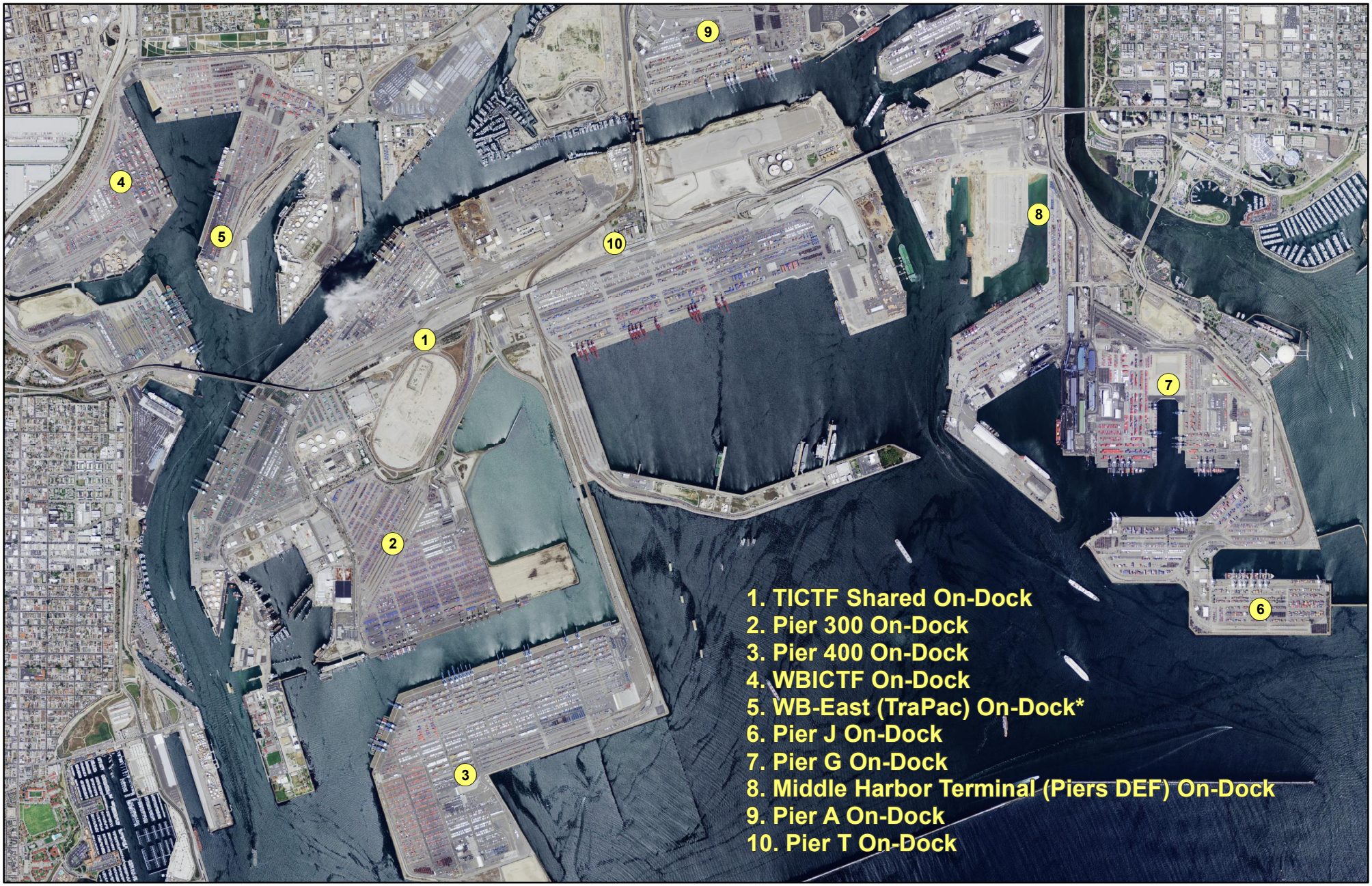

Aerial Source: USDA NAIP, 2012 Note: *Planned New On-Dock Rail

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

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

When a federal agency determines that a federal action associated with a proposed project could result in significant environmental effects, an EIS is prepared, which must provide a full and fair discussion of anticipated significant environmental impacts of the proposed Project and alternatives. The EIS informs decision makers and the public of the reasonable alternatives to 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 that "regulate activities of private individuals, corporations, and public agencies that 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 Section 21000, subd. (g); see also Section 21001 (Legislative Intent).) Public agency decision makers are therefore required to consider and document the potentially significant adverse environmental effects of their actions and, whenever possible, avoid adverse effects on the environment. When a public agency determines that substantial evidence in light of the whole record shows that an agency action, such as approval and implementation of the proposed Project, may have a significant impact on the environment, an EIR must be prepared. The purpose of an EIR is to identify the reasonably foreseeable significant adverse impacts of a proposed project on the physical environment, identify alternatives to reduce the project's significant effects while attaining all or most of the project objectives, and 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. Similar to an EIS, an EIR is intended to be a full disclosure document and an aid to the public decision-making process.

1.4 Lead, Responsible, and Trustee Agencies

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

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

Implementation of the proposed Project will also require permits and approvals from public agencies other than the lead agencies. These other public agencies are referred to as responsible agencies and trustee agencies under CEQA (State CEQA Guidelines Sections 15381 and 15386) and cooperating agencies under NEPA (e.g., USACE and EPA). Responsible agencies are state or local public agencies other than the CEQA lead agency that have discretionary approval over the Project. In most circumstances, CEQA requires a responsible agency to use the lead agency's CEQA document to support its own decision-making process (State CEQA Guidelines Section 15096). Trustee agencies include state agencies that have jurisdiction by law over natural resources affected by a project that are held in trust for the people of California.

Specifically, Section 15381 of the State 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 State 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 1-3 lists the lead, responsible, and trustee federal, state, and local agencies that could rely on the EIS/EIR in a review capacity or as a basis for issuance of a permit or other approval for the proposed Project.

Table 1-3: Agencies that Are Expected to Use This EIS/EIR

Agency	Responsibilities, Permits, and Approvals
Federal Agencies	
U.S. Army Corps of Engineers (USACE)	Lead federal agency for implementation of NEPA on the proposed Project. Responsible for permitting work and structures in navigable waters, discharges of dredged or fill material in waters of the U.S., and transport for the purpose of disposal of dredged material at U.S. Environmental Protection Agency designated sites in ocean waters. It is anticipated that a Department of Army (DA) 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 federal actions in accordance with the Fish and Wildlife Coordination Act and consultations pursuant to Section 7 of the federal Endangered Species Act (ESA) for marine species. Administers Marine Mammal Protection Act (MMPA) for most marine species. Also responsible for consultations on impacts to 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. Authorizes "takes" of certain species under the MMPA and ESA.
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 (EPA)	Has primary responsibility for implementing the federal Clean Air Act and works with other federal agencies to implement conformity requirements. Reviews and submits recommendations for Spill Prevention Control and Countermeasure 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 and permitting transport of dredged sediments for and the purpose of ocean disposal in accordance with Section 103 of the MPRSA. Reviews and submits recommendations to USACE related to federal construction actions and issuance of Section 404 and 103 permits, as applicable.
U.S. Fish and Wildlife Service (USFWS)	Reviews federal actions in accordance with the Fish and Wildlife Coordination Act and consults pursuant to Section 7 of the federal ESA for all terrestrial and some marine species. take" under the Authorizes "take" Migratory Bird Treaty Act (MBTA) and ESA for certain species.
State Agencies	
California Air Resources Board	Permitting/registering authority for various equipment, such as trucks and reefer units. Enforcement authority for shore power

Table 1-3: Agencies that Are Expected to Use This EIS/EIR

Agency	Responsibilities, Permits, and Approvals
(CARB)	regulations, requiring reductions in emissions from ship auxiliary engines through 2020 (17 CCR 93118.3).
California Coastal Commission (CCC)	Reviews environmental documents to ensure compliance with the federal Coastal Zone Management Act 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 Wildlife (CDFW)	Reviews and submits recommendations in accordance with CEQA. Consults with lead agencies 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.
California Department of Transportation (Caltrans)	Permitting authority for highway improvements and rail trackage, connections, and signage.
California Office of Historic Preservation	Consults with the USACE under Section 106 of the National Historic Preservation Act regarding impacts on cultural resources (e.g., prehistoric sites, demolition of historic 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.
California Department of Resources Recycling and Recovery (CalRecycle)	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.
Regional Water Quality Control Board, Los Angeles Region (LARWQCB)	Permitting authority for federal Clean Water Act (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. 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. CSLC inspects and monitors all marine facilities for effects on public health, safety, and the

Table 1-3: Agencies that Are Expected to Use This EIS/EIR

Agency	Responsibilities, Permits, and Approvals
	environment.
Department of Toxic Substances Control (DTSC) division of the California Environmental Protection Agency (CalEPA)	Regulatory jurisdiction over underground storage tanks containing hazardous material and implements groundwater monitoring provision of the Resource Conservation and Recovery Act. Responsible for general site cleanup outside underground storage tanks (such as state Superfund sites).
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 landfills sand operation of predominately stationary sources of emissions at facilities operating within the South Coast Air Basin. At a terminal, this can include but is not limited to pump stations, storage tanks, 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, 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 Draft EIS/EIR. LAHD has leasing authority for Port land, permitting authority for engineering construction, and is responsible for general regulatory compliance 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

Table 1-3: Agencies that Are Expected to Use This EIS/EIR

Agency	Responsibilities, Permits, and Approvals
	Specific Mitigation Plans. Such plans implement requirements of the MS4 permit that has been issued by LARWQCB to the 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 the 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.
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 Initial Study (IS) prepared pursuant to CEQA (see Appendix A), 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 October 24, 2014, and the CEQA NOP was also posted on October 24, 2014 (see Appendix A of this Draft EIS/EIR). A public scoping hearing was conducted on November 13, 2014, in San Pedro. No public comments were received during the scoping meeting; however, 10 comment letters were received. Table 1-4 summarizes key issues raised in the comment letters.

Subsequent to the release of the NOI/NOP, refinements have been made to the proposed Project, which are reflected in Chapter 2, Project Description. These refinements include the following:

- Elimination of maintenance dredging at Berth 229;
- Increasing disposal of dredge material from 33,300 cubic yards to approximately 38,000 cubic yards (30,000 cubic yards from Berths 226 to 229, and 8,000 cubic yards from Berths 230-232);

- Increasing the number of new 100-foot gauge A-frame gantry cranes from three to five;
- Raising up to five of the eight existing crane heights;
- Installing three-foot spacers between the wharf and existing wharf fenders;
- Increasing the number of AMP vaults along the wharf from two to five; and,
- Refining the projected terminal throughput from approximately 2.5 million TEUs to 2,379,525 TEUs.

These refinements to the proposed Project do not represent substantial changes from the NOI/NOP. These refinements are presented in the Project Description (Chapter 2) and are evaluated herein.

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 1-4 presents a summary of the key comments received during the NOI/NOP public comment period and references to the sections of this Draft EIS/EIR addressing them.

Table 1-4: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
EPA	- Recommends that LAHD continue to demonstrate and deploy new technologies, particularly zero and near zero tailpipe emission technologies that could allow the air basin to attain the NAAQS. - Recommends that the Draft EIS evaluate vessel emissions under the Action Alternatives (a.k.a. build alternatives) to those of the No Action alternative (a.k.a. No Federal Action or NEPA baseline). - Recommends that the Draft EIS address emissions from the containers passing through the terminal that will use off-dock, near-dock and on-dock rail facilities. - Recommends that the Draft EIS identify the types of truck transactions (single, dual, empty chassis, etc.) and explain how dual truck transactions can be used to reduce emissions. - Recommends that the Draft EIS address greenhouse gas emissions and their contribution to climate change. - Recommends that the Draft EIS include criteria for managing and disposing of dredge materials. - Recommends that the Draft EIS discuss	Chapter 2, Project Description; Section 3.2, Air Quality and Meteorology; Section 3.5, Greenhouse Gas Emissions; and Section 3.11, Water Quality, Oceanography, and Sediments

Table 1-4: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
	compliance with the 2013 Vessel Discharge Permit. - Recommends that the Draft EIS identify whether action alternatives will provide contributions to community projects or grants. - Recommends that the Draft EIS consider data on asthma and other health effects on children and the community.	
U.S. Coast Guard	- Recommends advanced coordination with the USCG.	Chapter 2, Project Description
U.S. Department of interior – Bureau of Ocean Energy Management	- Recommends the Draft EIS address potential impacts to existing offshore oil and gas platforms due to increased vessel traffic.	Section 3.9, Marine Transportation
California State Lands Commission (CSLC)	- Acknowledges that the proposed Project is located on sovereign submerged lands that have been transferred, in trust, to the City of Los Angeles (Statute of 1911, Chapter 656), and that the City should ensure that uses are consistent with the Public Trust Doctrine. - Notes that the Project Description in the Draft EIS/EIR should be as detailed as possible. - Recommends that USACE and LAHD should conduct queries of CDFW's California Natural Diversity Database and USFWS's Special Status Species Database to identify any special-status plant or wildlife species that may occur in the proposed Project area. Coordination with CDFW and USFWS, as well as direct surveys or data collection, should be performed. - Notes that the Draft EIS/EIR should consider the proposed Project's potential to encourage the establishment or proliferation of marine invasive species. If significant impacts are determined, mitigation should be considered including contracting vessels and barges from nearby, or requiring hull cleaning. - Recommends that the EIS/EIR include a	Chapter 1, Introduction; Chapter 2, Project Description; Section 3.2, Air Quality and Meteorology; Section 3.3, Biological Resources; Section 3.4, Cultural Resources; Section 3.5, Greenhouse Gas Emissions;

Table 1-4: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
	discussion of sea level rise, as it pertains to the proposed Project, based on need rather than cost-effectiveness. - Notes that the Draft EIS/EIR should evaluate potential impacts on submerged cultural resources in the proposed Project area, including consultation with CSLC's shipwrecks database. - Notes that title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands is vested in the state and under the jurisdiction of the CSLC. - Notes that the EIS/EIR should avoid the improper deferral of mitigation.	
South Coast Air Quality Management District (SCAQMD)	- Requests copy of Draft EIR along with all appendices and related technical documents. - Notes that the SCAQMD CEQA Air Quality Handbook (1993) is available to assist with preparation of the air quality analysis, and that CalEEMOD is the preferred land use emissions model. - Notes that the Draft EIS/EIR should identify any potential adverse air quality impacts from all phases of the proposed Project (construction and operation) and all air pollutant sources related to the proposed Project. - Recommends quantifying emissions and comparing against SCAQMD's regional thresholds. - Recommends quantifying localized air quality impacts using SCAQMD methodology and guidance, and compare the results to SCAQMD's localized significance thresholds (LSTs) or performing dispersion modeling if necessary. - Recommends performing a mobile-source health risk assessment using SCAQMD guidance. - Notes that CEQA requires the identification of all feasible mitigation measures, including those that go beyond what is required by	Chapter 2, Project Description; Section 3.2, Air Quality and Meteorology

Table 1-4: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
	law. - Notes that SCAQMD rules and relevant air quality reports and data are available through the Public Information Center and SCAQMD website.	
Native American Heritage Commission (NAHC)	- Recommends performing a record search of the Project area to determine if the area has been surveyed for cultural resources, and to determine the potential for resources to be present. - Recommends parameters for preparing an archaeological survey report. - Recommends contacting the NAHC to perform a Sacred Lands File Check and to obtain a list of appropriate Native American contacts. - Recommends the preparation of mitigation plans to address archaeological resources, and provides parameters for those plans.	Section 3.4, Cultural Resources
Southern California Association of Governments (SCAG)	- Requests copy of environmental documentation be sent to SCAG's Los Angeles office or via e-mail for the full comment period. - Requests that the Draft EIS/EIR include a review and consideration of the adopted Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) goals.	Appendix A, NOP/IS – Land Use and Planning; Section 3.6, Ground Transportation
City of Los Angeles, Bureau of Sanitation	- Notes that sewer relocations, if required, should be coordinated with the Bureau of Sanitation. - Notes that stormwater mitigation measures based on the Standard Urban Stormwater Mitigation Plan and Low Impact Development may be required and early phases of the proposed Project should be coordinated with the Bureau's Watershed Protection Division. - Provides requirements for stormwater control during construction.	Chapter 2, Project Description; Section 3.11, Water Quality, Oceanography, and Sediments
Exxon Mobil	- Provides information regarding an existing abandoned pipeline in the Project vicinity. - Notes that Exxon Mobil personnel must be present during construction in the vicinity of	Chapter 2, Project Description

Table 1-4: Summary of Key NOI/NOP Comments

Commenter	Key Issues Raised	Sections Addressed
	Exxon Mobil facilities. - Notes that facilities identified as active, idle or abandoned remain the property of Exxon Mobil and activities that affect these facilities must be approved by Exxon Mobile.	
Kinder Morgan	- Notes that Kinder Morgan does not have any facilities in the Project area.	Not applicable.

1.5.1 Scope of Analysis

This Draft EIS/EIR has been prepared in conformance with NEPA (42 USC 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 15000 et seq.), and the 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 "Significance Criteria" sections of each resource topic in Chapter 3, Environmental Analysis. The threshold of significance for a given environmental effect is the level at which 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" (State CEQA Guidelines, Section 15064.7(a)). Except as noted in particular sections of the document, LAHD 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, 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.

Under NEPA, the scope of the federal review is guided by 33 CFR 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 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 (33 CFR 325 Appendix B). The four factors considered in

determining "sufficient control and responsibility" include the following and are discussed further in Section 2.8 of Chapter 2, Project Description:

- 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; and
- the extent of cumulative federal control and responsibility.

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

- Aesthetics and Visual Resources
- Air Quality and Meteorology
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Ground Transportation
- Groundwater and Soils
- Hazards and Hazardous Materials
- Marine Transportation
- Noise
- Water Quality, Sediments, and Oceanography

Environmental resource areas that were eliminated in the NOI/NOP and Scoping Process (see Appendix A of this Draft EIS/EIR) were: agricultural and forest resources, mineral resources, land use and planning, population and housing, recreation, and utilities and public services.

This Draft EIS/EIR has been prepared by CDM Smith under contract to LAHD and has been reviewed independently by USACE and LAHD staff. The scope of the document, methods of analysis and conclusions represent the independent judgments of USACE and LAHD. Staff members from USACE, LAHD, and CDM Smith 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, as well as other concerned agencies.

1.5.2.1 USACE Use

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

USACE's Record of Decision will document USACE's decision on the proposed Project or alternative, 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

LAHD has jurisdictional authority over the proposed Project primarily pursuant to the Tidelands Trust, California Coastal Act, and the Los Angeles City Charter. This Draft 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. LAHD's certification of the EIS/EIR, Notice of Completion, Findings of Fact, and Statement of Overriding Considerations (if necessary) would document their decision as to the adequacy of the EIS/EIR and inform subsequent decisions by LAHD whether to approve and construct the proposed Project or alternative.

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 1-3.

Specific approvals that could be required for this proposed Project include, but are not limited to: DA 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 pursuant to the Porter-Cologne Water Quality Control Act, CWA Section 402 NPDES permits), and construction contracts by LAHD and Los Angeles City Council.

Actions that could be undertaken by LAHD following preparation of the Final EIS/EIR include: certification of the EIS/EIR, approval of the proposed Project, completion of final design, issuance of a Coastal Development Permit, 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

The Draft EIS/EIR is based on the Initial Study Checklist (Appendix A of this Draft EIS/EIR) and scoping comments received. Table 1-5 contains a list of sections required under NEPA and CEQA and references the specific chapter in this document where the specific information is located.

Table 1-5: Organization and Contents of the Draft EIS/EIR

Draft EIS/EIR Section	Description
Executive Summary	Summarizes the proposed Project and alternatives, potential significant impacts and mitigation measures, the environmentally preferred alternative (in accordance with NEPA) and the environmentally superior alternative (in accordance with CEQA), public comments and concerns, and unresolved issues and areas of controversy.
Chapter 1, Introduction	Provides 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. Describes the intended uses of the document and authorizing actions, the purpose of NEPA and CEQA, 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 determining the level of 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 the proposed Project or any of the alternatives would cause related impacts that would result in either a direct cumulatively significant impact or a cumulatively considerable contribution to an existing cumulative significant impact.
Chapter 5, Environmental Justice	Addresses the possible effects of the proposed Project and each proposed Project alternative on minority and/or low-income populations adjacent to the 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, Socioeconomics	Identifies the socioeconomic impacts of the proposed Project as required by NEPA and, under CEQA, to the extent socioeconomic impacts could result in indirect effects on the physical environment.
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.
Chapter 11, List of Preparers and	Lists the individuals involved in preparing this Draft EIS/EIR.

Table 1-5: Organization and Contents of the Draft EIS/EIR

Draft EIS/EIR Section	Description
Contributors	
Chapter 12, Acronyms and Abbreviations	Provides the full names for acronyms and abbreviations used throughout this document.
Appendices	Present 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 CEQA/NEPA Terminology

Both CEQA and NEPA require preparation of an environmental analysis to evaluate the potential environmental effects and effects to the human environment of proposed actions (and alternatives to those actions) that are subject to governmental approvals. However, there are several differences between the two in terminology, procedures, environmental document content, and substantive mandates to protect the environment. For this EIR/EIS, the more rigorous of the two laws was applied in cases in which NEPA and CEQA differ.

Many concepts are common to NEPA and CEQA, including their intent and the review process that they dictate. Importantly, both statutes encourage a joint Federal and state review where a project requires both Federal and state approvals. Both processes require an initial review resulting in a notice to the public, scoping, development of alternatives, development of an environmental document analyzing the alternatives, and consideration of public and agency input. These steps are followed by the preparation of a final environmental document and agency decisions (Executive Office of the President of the U.S. and State of California, Governor's Office of Planning and Research, 2013). The laws sometimes use differing terminology for common concepts, as illustrated in Table 1-6, application of similar concepts may not be exactly analogous under NEPA and CEQA.

Table 1-6: Correlated CEQA and NEPA Terminology

CEQA Term	NEPA Term
Environmental Impact Report	Environmental Impact Statement
Notice of Preparation	Notice of Intent
Notice of Completion/Notice of Availability	USEPA Filing/Federal Register Notice and Agency/ Public Review (also known as a Notice of Availability)
Notice of Determination/Findings/Statement of Overriding Considerations	Record of Decision
Responsible Agency	Cooperating Agency
Project Objectives	Purpose and Need; Objectives and Constraints
Proposed Project and Alternatives	Proposed Action and Alternatives
No Project Alternative	No Action Alternative
Environmental Impacts	Environmental Consequences
Environmental Setting	Affected Environment
Threshold of Significance/Significant Impacts	Although none are specified in NEPA, CEQ regulations require an EIS to identify the direct and indirect effects "and their significance" (40 CFR 1502.16)
Cumulative Impacts	Cumulative Effects

1.6.2 Emphasis on Significant Environmental Effects

This Draft EIS/EIR focuses on the reasonably foreseeable significant environmental effects of the proposed Project and alternatives, and 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 (if available) 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 State 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 State 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 State 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 State 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 State 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, 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 Draft EIS/EIR addresses Environmental Justice (Chapter 5) and Socioeconomics and Environmental Quality (Chapter 7).

1.6.3 Forecasting

In this Draft EIS/EIR, 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 USACE and LAHD to engage in speculation about impacts that are not reasonably foreseeable (State CEQA 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 1502.22).

1.6.4 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 EIS/EIR must identify feasible mitigation measures for any impact identified as "significant." In preparing this document, LAHD and USACE has based its conclusions about the significance of environmental impacts on identifiable thresholds and has supported these conclusions with substantial scientific evidence and publicly available information. USACE has adopted the City of Los Angeles CEQA Thresholds to meet its NEPA responsibilities for this Draft EIS/EIR, 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, Environmental Analysis. 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" (State CEQA Guidelines, Section 15064.7(a)). Under NEPA, the USACE evaluates and determines the significance of the incremental impacts of the Project compared to the NEPA baseline (see Section 2.7.2 in Chapter 2, Project Description, for further details).

1.6.5 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 NEPA and CEQA, the Draft EIS/EIR need not resolve all such disagreements.

In accordance with the provisions of the State 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. Further, consistent with NEPA case law, when specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive. Therefore, the Draft EIS/EIR has summarized the conflicting opinions where known, 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 there is 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.

1.6.6 Duty to Mitigate

Under NEPA, 40 CFR 1505.3 requires that:

> *…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.*

Although USACE could identify and analyze impacts outside its jurisdiction, USACE limits the placement of special conditions in DA permits (requirements for mitigation) to areas within USACE jurisdiction (i.e., areas directly subject to its permitting authority. USACE has no legal authority to constrain construction or operations outside its

jurisdiction where, absent a DA permit for construction in navigable waters or discharges into waters of the U.S., the federal government has no statutory authority. 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, USACE would not place special conditions on those upland impacts because activities in the uplands are not within USACE jurisdiction or federal control and responsibility, and most upland impacts would occur without a DA permit. However, it should be noted that all feasible mitigation would be applied to address upland and aquatic impacts under CEQA, and such mitigation would be enforced by the LAHD.

According to Section 15126.4(a) of the State 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 and enforceable, define feasible actions that would demonstrably improve significant adverse 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 would occur. Mitigation measures must be enforceable, meaning that the lead agency must ensure that the measures would be imposed through appropriate permit conditions, agreements, or other legally binding instruments.

Section 15041 of the State CEQA Guidelines 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 (State 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 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 project. (See *Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. City of Tigard* (1994) 512 U.S. 374; *Ehrlich v. City of Culver City* (1996) 12 Cal. 4th 854).

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 reasonable range of feasible alternatives that would avoid or substantially reduce the significant adverse impacts of the project;
- 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) Alternatives;
- 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 feasible mitigation measures (when not already part of the proposed action or alternatives); and
- present the alternatives that were eliminated from detailed study and briefly discuss the reason(s) for elimination.

NEPA (40 CFR 1502.14(a)) and State CEQA Guidelines (Section 15126.6) require that an EIS and an EIR, respectively, describe a reasonable range of feasible 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 State CEQA Guidelines, the EIR should compare merits of the alternatives and determine an environmentally superior alternative. Section 2.9 in Chapter 2, Project Description, of this Draft EIS/EIR sets forth potential alternatives to the proposed Project and Chapter 6, Comparison of Alternatives, evaluates their comparative merits, as required by the State 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 a proposed project. An EIS and an EIR need not consider an alternative that would be infeasible. State 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 EIS/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. With respect to NEPA, only reasonable alternatives need be considered in detail, as specified in 40 CFR 1502.14(a). Reasonable alternatives must be those that are feasible and such feasibility must focus on the accomplishment of the underlying purpose and need that would be satisfied by the proposed federal action (DA permit issuance).

1.6.8 Port of Los Angeles Plans and Programs

LAHD has implemented a variety of plans and programs to reduce the environmental effects associated with operations at the Port. These programs include, but are not

limited to the following: the San Pedro Bay Ports Clean Air Action Plan (CAAP), Water Resources Action Plan (WRAP), and Sustainable Construction Guidelines. All of these efforts ultimately reduce adverse environmental effects. Furthermore, LAHD is aggressively studying zero-emission technology with the intent of integrating zero emission equipment into terminal operations.

1.6.8.1 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, prepared 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 South Coast Air 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.

The CAAP focuses primarily on reducing diesel particulate matter (DPM), along with nitrogen oxides (NO_X) and sulfur oxides (SO_X). This strategy reduces emissions and health risk and thereby allows for future Port growth while progressively controlling the impacts associated with such 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 that 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 NO_X, and 93 percent for SO_X
  - By 2023, reduce emissions by 77 percent for DPM, 59 percent for NO_X, and 92 percent for SO_X

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 Board 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 2010 CAAP Update. 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.

In 2016, the Ports began the process of updating the CAAP to produce the third version. The scope and framework of this CAAP 3.0 Update will continue to look at the five major mobile sources of air pollution in and around the ports, while placing new Bay-wide Standards for the future. In addition, the CAAP will be expanded to address the following:

- zero-emissions technologies
- greenhouse gas emissions reductions
- energy strategies
- supply chain optimization

Zero Emission Equipment

While the CAAP has been very successful at encouraging substantial emission reductions, further reductions are needed as port throughput continues to increase in the coming years. Furthermore, important greenhouse gas reduction deadlines approaching in the next few years, the LAHD has identified zero emission equipment as a critical element to be integrated into marine related goods movement in the future.

In 2011, the LAHD and the Port of Long Beach released a Zero Emission Technologies Roadmap to establish an initial plan for identifying technologies to pursue demonstrations to advance zero emission technology development. In July 2015, the LAHD released a draft Zero Emission white paper.

The LAHD has provided over $7 million in funding for projects aimed at developing zero emission technology for short-haul drayage trucks and on-terminal yard tractors. Initial zero emission vehicle testing has shown mixed results, but more recent progress has been made that reinforces the LAHD's belief that zero emission container movement technologies show great promise for helping to reduce criteria pollutant and greenhouse gas emissions in the future.

The LAHD, working collaboratively with the Port of Long Beach and several stakeholders and partnerships, is committed to expanded development and testing of zero emission technologies, identification of new strategic funding opportunities to support these expanded activities, and new planning for long-term infrastructure development to sustain developed programs, all while ensuring competitiveness among the maritime goods movement businesses.

1.6.8.2 Water Resources Action Plan

Both LAHD and the 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, under the WRAP the Ports 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 LARWQCB 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/POLB, 2009).

1.6.8.3 Port of Los Angeles Sustainable Construction Guidelines

LAHD adopted the Port of Los Angeles Sustainable Construction Guidelines in February 2008 and revised them in November of 2009. The guidelines are used to establish air emission criteria for inclusion in bid specifications for construction. The guidelines 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 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, 2009). These guidelines are made a part of all construction specifications advertised for bids.

Significant features of the 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-3 engine emission standards;
- all dredging equipment shall be electric;
- on-road heavy-duty trucks shall comply with USEPA 2007 on-road emission standards for inhalable particulate matter (PM10) and NOX;
- construction equipment (excluding on-road trucks, derrick barges, and harbor craft) shall meet Tier 3 emission off-road standards; the requirement will be raised to Tier 4 by January 1, 2015; in addition, construction equipment shall be retrofitted with a CARB-certified Level 3 diesel emissions control device;
- equipment will 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.

1.6.8.4 Other Environmental Programs

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 in the process of providing 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 Terminal, Yusen Terminal, Everport Container Terminal (the Project site), TraPac Terminal, and the 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 1-7), 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 1,400,000 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. In 2004, the Port of Los Angeles Board of Harbor Commissioners adopted an Intermodal Rail Policy to guide the development of additional rail facilities, to reduce the number and length of truck trips in the Port area, and to achieve reductions in rail-related air emissions (LAHD, 2004). The Port Resolution:

- Provides for on-dock and comparable near-dock intermodal facilities for shippers, carriers, terminal operators, and Class I Railroads;
- Ensures all Port customers are utilizing on-dock intermodal rail to the fullest extent feasibly possible;
- Ensures sufficient rail capacity is maintained to increase rail usage, meet future demand, and adapt to evolving intermodal rail operations;

- Provides the opportunity to direct local movements of cargo from truck to rail;
- Encourages Port customers to pool container cargo and share on-dock and-near dock rail facilities to the fullest extent feasible.

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,[10] the majority of tugboats operating in the Port Complex have been retrofitted.

Electric and Alternative Fuel Vehicles. LAHD has converted more than 35 percent of its fleet to electric or alternative-fuel vehicles. These include heavy-duty vehicles and passenger vehicles. LAHD 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 approximately 86 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 five years, diesel oxidation catalysts 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 and 40 nautical miles of the entrance to Los Angeles Harbor, thus reducing emissions from main propulsion engines. As of 2014, approximately 100 percent of ships comply with the voluntary program within 20 nautical miles and 95 percent comply within 40 nautical miles.

Everport Enhanced Cargo Demonstration Project(s)

ETS (through the Los Angeles Harbor Department) was awarded a grant from the California Energy Commission in late 2016 to commission a demonstration project to test 20 near-zero yard tractors (i.e., liquefied natural gas) as well as 5 battery electric yard tractors at the Everport Container Terminal. This demonstration project will begin in Summer 2017 and last for 12 months.

In addition, the LAHD is also in the process of submitting an additional grant application to CEC for two battery electric top picks and three additional battery electric yard tractors to undergo a demonstration project at the Everport Container Terminal as well. If this grant is awarded, the demonstration project would last approximately 15 months to ensure the successful implementation of the equipment. This demonstration project will be followed and included into Lease Measure (LM) AQ-1 regarding the periodic review of new technology (refer to Section 3.2.4.7 in Section 3.2, Air Quality and Meteorology, for a description of LM AQ-1).

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

Water Quality

Water Quality Monitoring. LAHD 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, biological oxygen demand, 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. LAHD has invested hundreds of thousands of dollars in water circulation/quality models and studies to investigate the problem. Recently, LAHD 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. In 2004, the LARWQCB adopted an Amendment to the Water Quality Control Plan to incorporate the Los Angeles Harbor Bacteria Total Maximum Daily Load (TMDL). The TMDL was developed to address impairments of water quality standards by coliform and beach closures at Inner Cabrillo Beach and the Main Ship Channel at the Port. A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and allocates the pollutant loadings to point and nonpoint sources.

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, LAHD maintains, monitors, and protects the approximately 15-acre nesting site on Pier 400.

Interagency Biomitigation Team. As part of 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 USACE, USFWS, NMFS, and CDFW. A number of mitigation agreements have been established through this coordination, and the team continues to meet as necessary to address environmental issues associated with Port development and operations.

General Port Environmental Programs

Green Building Policy. In August 2007, LAHD 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 of Los Angeles departments for the benefit of the community. The policy incorporates sustainable

building design and construction guidelines based on the U.S. Green Building Council – Leadership in Energy and Environmental Design Green Building Rating System (POLA, 2007).

Recycling. LAHD incorporates a variety of innovative environmental ideas into its construction projects. For example, when building an on-dock rail facility, LAHD saved nearly $1,000,000 and thousands of cubic yards of landfill space by recycling existing asphalt pavement instead of purchasing new pavement. LAHD also maintains an annual contract to crush and recycle broken concrete and asphalt. In addition, LAHD successfully has used recycled plastic products, such as fender piles and protective front-row piles, in many wharf construction projects.

1.7 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 40 CFR 1506.10 of the CEQ NEPA Regulations and Section 15087 of the State CEQA Guidelines. A 45-day comment period has been established, which begins on April 20, 2017, and ends on June 5, 2017, during which the Draft EIS/EIR is available for general public review at the following locations:

LAHD
Environmental Management Division
222 W. 6th Street, Suite 1080
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 of Los Angeles website at:

http://www.portoflosangeles.org/environment/public_notices.asp.

Interested parties may provide written comments on the Draft EIS/EIR, which must be postmarked by June 5, 2017. Please address comments to both:

U.S. Army Corps of Engineers
Los Angeles District, Regulatory Division
Ventura Field Office
c/o Theresa Stevens, Ph.D.
2151 Alessandro Drive, Suite 110
Ventura, CA 93001

Christopher Cannon, Director
Environmental Management Division
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731

Comments can also be submitted via email. Emailed comments should include the title of the project in the subject line and a valid mailing address in the body of the email. Email comments should be sent to both Theresa.Stevens@usace.army.mil and ceqacomments@portla.org.