Section 3.13
Public Services and Utilities

SECTION SUMMARY

This section addresses potential impacts on public services (fire protection, emergency medical services, and police protection) and public utilities (water services, wastewater, storm drains, solid waste, electricity, and natural gas) that could result from increasing container-handling capacities at the proposed Project site.

Section 3.13, Public Services and Utilities, provides the following:

- A description of existing public services serving the Port;
- A description of existing public utilities serving the Port;
- A discussion on the methodology used to determine whether the proposed Project or an alternative would result in an impact to public services or utilities;
- An impact analysis of both the proposed Project and alternatives; and,
- A description of any mitigation measures proposed to reduce any potential impacts, as applicable.

Key Points of Section 3.13:

The proposed Project would not increase the demand for additional law enforcement officers and/or facilities such that the U.S. Coast Guard (USCG), Los Angeles Police Department (LAPD), or the Los Angeles Harbor Department Police (Port Police) would not be able to maintain an adequate level of service without additional facilities. Project operations would not affect emergency response times because the site would have the same land use and similar layout and same distances to fire stations as the existing terminal. Although construction and/or expansion of on-site water or wastewater lines would be required to support new terminal development, the increases in water demand and wastewater generation would be considered negligible and the overall operations requiring water or generating wastewater would be similar to baseline conditions. Therefore, the proposed Project would not generate water and/or wastewater demands that would exceed the capacity of existing facilities that serve the Project area. The solid waste generation and disposal associated with the construction of the proposed Project or Alternatives 3, 4, 5, or 6 would be expected to result in less than significant impacts to landfill capacity under both CEQA and NEPA, standard conditions of approval have been added to minimize impacts to the solid waste stream as a result of demolition debris.

With the implementation of these standard conditions of approval as identified below, potential impacts would be further reduced and impacts would remain less than significant:

- **SC PS-1: Recycling of Construction Materials.** Demolition and/or excess construction materials shall be separated on-site for reuse/recycling or proper disposal. During grading and construction, separate bins for recycling of construction materials shall be provided on-site.

- **SC PS-2: Materials with Recycled Content.** Materials with recycled content shall be used in Project construction where feasible. Chippers on-site during construction shall be used to further reduce excess wood for landscaping cover. The proposed Project and all alternatives would be consistent with the General Plan or adopted environmental goals or policies contained in other applicable plans.

In addition to the above standard conditions of approval, mitigation measure **MM AQ-19** would be implemented to ensure a minimum of 40 percent of all waste generated in all terminal buildings is recycled by 2014 and 60 percent is recycled by 2016 to reduce solid waste generation. Additionally, mitigation measures **MM AQ-17** and **MM AQ-18** would be implemented to reduce energy demand and overall GHG emissions associated with the proposed Project and Alternatives 4, 5, and 6 to less than significant. In summary, **MM AQ-17** would require installation of fluorescent light bulbs, or technology with similar energy savings, in all interior buildings, and **MM AQ-18** would require the tenant to perform regular energy audits.[1] These mitigation measures are explained in more detail in Section 3.2, Air Quality, Meteorology, and Greenhouse Gases. For additional information regarding the Port's sustainability initiatives, refer to its *Sustainability Assessment and Plan Formulation* and the *Climate Action Plan – Strategies for Municipally-Controlled Sources* (LAHD, 2008 and 2007, respectively).

[1] An Energy Audit typically involves the installation of innovative power saving technology approximately every 5 years, where feasible, such as power factor correction systems and lighting power regulators. Such systems help to maximize usable electric current and eliminate wasted electricity, thereby lowering overall electricity use. See the Port of Los Angeles Sustainability Assessment and Plan Formulation for additional information (LAHD, 2008).

3.13.1 Introduction

This section addresses potential impacts on public services (fire protection, emergency medical services, and police protection) and public utilities (water services, wastewater, storm drains, solid waste, electricity, and natural gas) that could result from increasing container-handling capacities at the proposed Project site.

3.13.2 Environmental Setting

3.13.2.1 Public Services

3.13.2.1.1 Fire Protection and Emergency Medical Services

Fire prevention, fire protection, and emergency medical services within the City of Los Angeles (City) operate under the Fire Protection and Prevention Plan, an Element of the City of Los Angeles General Plan, and the Fire Code section of the Los Angeles Municipal Code (LAMC) (City of Los Angeles, 2001 and 2011, respectively). The Fire Protection and Prevention Plan serves as a guide for the construction, maintenance, and operation of fire protection facilities in the City. The Plan sets forth policies and standards for fire station distribution and location, fire suppression water flow (or "fire flow"), fire hydrant standards and locations, firefighting equipment access, emergency ambulance services, and fire prevention activities. The City of Los Angeles Fire Department (LAFD) also considers population density, nature of on-site land uses, and traffic flow in evaluating the adequacy of fire protection services for a specific area or land use.

The amount of fire flow necessary for site-specific fire protection varies based on land use type, size, occupancy, type of construction, and degree of any existing fire hazards present. Required fire flow is defined as the rate of water flow, measured in gallons per minute and duration, needed for firefighters to contain a major fire to the buildings within the surrounding block. City of Los Angeles Fire Code (LAFC) standards require that a minimum residual water pressure of 20 pounds per square inch (psi) remain in the water system in excess of the required fire flow (LAFC, Division 9, Section 57.09.02). The LAFD assigns fire protection standards for response times for both engine and truck companies (LAFC, Division 9, Section 57.09.07A).

The LAFD provides fire protection and emergency services to the proposed Project area. The proposed Project site is located within the Harbor Industrial Division service district. Each LAFD district is defined so emergency services can reach the scene within five minutes of a call for help (LAFD, 2011). LAFD response time to the proposed Project vicinity is 5 minutes or less by land and in the 7-minute range by water (Vitovitch, pers. comm., 2009).

Since August of 2009, the LAFD has been operating with reduced services, to address an unexpected and significant budget shortfall. A 2011- 2012 Deployment Plan was put in place beginning July 2011 that adjusts operations to operate at maximum efficiency based on modeled response times, call frequency, and incident types within each fire station district. This information is used to refine resource deployment and tailoring operational plans to best meet the needs of each district by maximizing public safety and maintaining response times of 5 minutes. No fire stations were closed under the reduced service operations and each fire station continues to be staffed by a full complement of fire

fighters and emergency medical personnel. Additionally, resources and response factors are continually evaluated, and LAFD may realign any apparatus or personnel as required to maintain response times for City (LAFD, 2011).

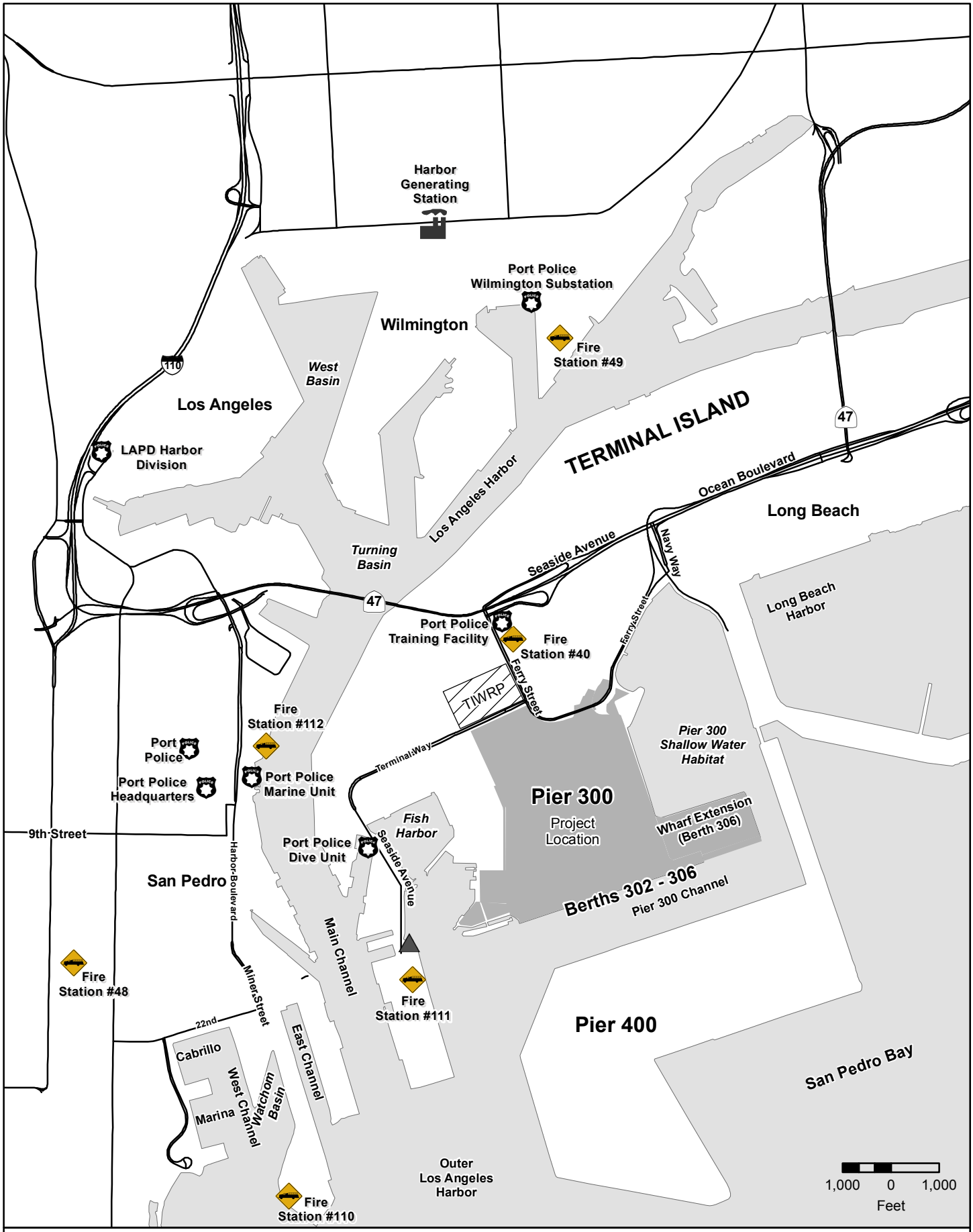
The closest fire station to the proposed Project site is Fire Station 40, located to the north of the Project site at 330 Ferry Street on Terminal Island. An engine from this fire station would travel approximately 0.85 mile to the terminal's in-gate. Fire Station 40 would likely provide the first response to a fire at the Project site (Buck, pers. comm., 2009). Figure 3.13-1 identifies the fire stations located within the Project vicinity.

Other stations that could provide fire fighting services by land to the Project site include Fire Station 40, located approximately 0.25 miles to the north at 330 Ferry Street on Terminal Island, Fire Station 49, located approximately 3.5 miles away at 400 Yacht Street (Berth 194), and Fire Station 48, located approximately 5 miles away at 1601 South Grand Avenue in San Pedro.

For firefighting service from the water, fire boats from the following stations could respond:

- Fire Station 110 – 2945 Miner Street (Berth 44-A)
- Fire Station 111 – 1444 Seaside Avenue, (Berth 256)
- Fire Station 112 – 444 South Harbor Boulevard (Berth 86)

Fire protection also depends on the required fire flow (water quantity and pressure necessary for fire protection). Typical urban fire flow requirements vary from 2,000 gallons per minute (gpm) in low-density areas to 12,000 gpm in high-density commercial and industrial areas. Water for domestic use and firefighting purposes is supplied to the proposed Project area by a network of main lines maintained by the Los Angeles Department of Water and Power (LADWP). Main lines are located in Terminal Way (12-inch-diameter line) and Earle Street (24-inch and 20-inch) easements (NavigateLA, 2009). Distribution lines are located throughout the Project site. Fire hydrants in the Project area are located along Terminal Way, Earle Street, and Barracuda Street adjacent to the existing terminal, as well as throughout the terminal. Current fire flow is considered adequate in the Project area and nearby Port facilities (Rongavilla, pers. comm., 2009). In addition, fireboats can pump water from the Harbor and utilize that water to combat fires on watercraft and waterfront areas. Therefore, current fire flow is considered adequate in the Project area and nearby Port facilities. As mentioned above, the fire and EMS response time to the proposed Project vicinity is 5 minutes or less by land and in the 7-minute range by water, which is less than the citywide average response time; therefore, existing fire response times, fire protection services and facilities are considered adequate.



Legend

- US Coast Guard station
- Fire Station
- Terminal Island Water Reclamation Plant
- Police Station
- Harbor Generating Station

N

CDM

Port of Los Angeles
Berths 302 - 306 [APL]
Container Terminal Project
Public Service Facilities

Figure 3.13-1

3.13.2.1.2 Police Protection

The LAPD and the Port Police provide police protection for the proposed Project area. The proposed Project site is located in the LAPD Harbor Division Area, which includes a 27.5-square-mile area including Harbor City, Harbor Gateway, San Pedro, Wilmington, and Terminal Island. The LAPD Harbor Community station is located at 2175 John S. Gibson Boulevard (refer to Figure 3.13-1) with 260 patrol officers, detectives and support staff including a minimum of 19 officers in the field at all times (Felch, 2009). During periods of statistically high-crime activity, the number of field officers has increased. The LAPD provides support to the Port Police and responds to incidents within the Port, including under the following circumstances: (1) complex crimes including homicides and major traffic incidents; (2) special investigations including narcotics, organized crime, and terrorism; and (3) unusual occurrences as identified by the City protocol, such as events that require special resources, expertise, or staffing beyond current competencies (Parnell, pers. comm., 2010). The LAPD's performance standard for police services is a 7-minute response time for priority calls (such as crimes in progress and violent crimes). Actual response time in the Harbor Division Area for 2009 averaged 6.5 minutes, which is considered adequate and is lower than the preferred time of 7 minutes (Parnell, pers. comm.,2010). Terrorism and associated risks from terrorism are addressed in Section 3.8, Hazards and Hazardous Materials.

The Port Police is responsible for patrol and surveillance within the Port property boundaries, including Port-owned properties within the communities of Wilmington, San Pedro, and Harbor City. The Port Police enforce federal, state, and local public safety statutes as well as environmental and maritime safety regulations. Their primary goal is to protect the Port against all criminal activity to ensure free flow and protection of commerce, and to identify, apprehend, and prosecute persons who would participate in criminal activity on LAHD properties, Port customers and visitors, or Port industrial and commercial tenants (LAHD, 2011). The Port Police Headquarters and office building is located directly west of the Harbor Administration Building at 330 South Centre Street in San Pedro, approximately 2.5 driving miles from the proposed Project site (refer to Figure 3.13-1). It is equipped with the latest in surveillance, command and control, and interoperable communications technologies and will be directly linked with the Long Beach Harbor Patrol command center.

There is a Wilmington substation located at 300 Water Street near Berth 195, and a Port Police training facility located at 300 Ferry Street (1.4 driving miles from the Project site). An Interagency Task Force Unit is located at 239 North Avalon Boulevard in Wilmington (Provinchain, pers. comm., 2008). Dive Unit facility boats and offices/lockers are located at 954 South Seaside Avenue on Terminal Island. The Dive Unit also responds to waterside incidents and emergencies. Marine Unit boats and a small office are located at Berth 84 with additional offices in the Crowley Building nearby. The average response time by Port Police to the Project site is 5 minutes (Boyd, pers. comm., 2009). Currently, the approximately 125 sworn Port Police officers maintain 24-hour land and water patrols at the Port (Twardy, pers. comm., 2011). Since September 11, 2001, the number of Port Police officers has increased 30 percent. In addition to LAPD and Port Police protection, each tenant occupying a berth or berths in the Port maintains its own internal security staff.

3.13.2.1.3 U.S. Coast Guard

The primary responsibility of the U.S. Coast Guard (USCG) is to ensure the safety of vessel traffic in the channels of the Port and in coastal waters. The 11th USCG District provides USCG support to the Port, including existing on-site facilities within the proposed Project area. The USCG station, officially known as Station Los Angeles Long Beach, is located at 1001 South Seaside Avenue, just west of the proposed Project site. The station's primary missions are Search and Rescue, Maritime Law Enforcement, and Homeland Security. The USCG in cooperation with the Marine Exchange also operates the Vessel Traffic Service (VTS). This voluntary service is intended to enhance vessel safety in the main approaches to the Port. Section 3.10, Marine Transportation, provides additional information. In addition, the USCG determines emergency response time based on the distance the USCG must travel to reach a given facility. An increase in vessel calls does not necessarily correlate to an increase in response times because adequate staffing levels will be maintained and although the vessel calls will increase annually, daily calls are expected to remain the same.

3.13.2.2 Public Utilities

3.13.2.2.1 Water

The LADWP provides water service to the proposed Project area. The LADWP is responsible for supplying, treating, and distributing water for domestic, industrial, agricultural, and firefighting purposes within the City. Water sources utilized by the LADWP include local sources, such as wells and recycled water (for non-potable uses), and imported sources, including the Los Angeles Aqueducts and purchases from the Metropolitan Water District of Southern California (MWD). MWD imports water from the Colorado River via the Colorado River Aqueduct, from northern California via the State Water Project's California Aqueduct, and from various groundwater sources. Water supply and conveyance structures include a series of reservoirs and a network of pipelines, such as reservoir outlets, major trunk lines, and other delivery lines. In Fiscal Year 2009-2010, LADWP supplied 555,477 acre-feet of water in its service area and a yearly average of 621,700 acre-feet during Fiscal Year 2006-2010 (LADWP, 2010a).

In a continuing effort to ensure a reliable water supply for future years, LADWP prepared the Urban Water Management Plan (UWMP), the updated version of which was adopted on April 11, 2011 (LADWP, 2010a). The UWMP is updated every 5 years, as required by the California Water Code (Section 10621a). The UWMP is designed to serve as the City master plan for water supply and resources management. This plan provides the basic policy principles that will guide the LADWP decision-making process to secure an adequate sustainable water supply for the entire City area of 464 square miles, including the Port, through the year 2035.

Specific supply-and-demand management strategies are designed to provide a hedge against droughts and variability of surface water. LADWP's UWMP uses a service-area-wide method in developing City water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the growth in water use for the entire service area was considered in developing long-term water projections for the City to 2035, including water use by Port tenants. The driving factors for this growth are demographics, weather, and water conservation. Demographic projections for LADWP's service area are based on the 2008 Regional Transportation Plan forecast generated by the Southern California Association

of Government (SCAG).[2] Total LADWP demand for water is predicted to be 701,200 acre-feet in 2030 and 710,800 acre-feet in 2035. Nonetheless, the LADWP expects a 15 percent lower water demand trend than what was projected in the 2005 UWMP. LADWP would be able to meet this demand by increasing local water supplies and water conservation from the current 12 percent to 43 percent by 2035, reducing its reliance on the purchased MWD water supply by one-half (LADWP, 2010a).

Under certain circumstances, a Water Supply Assessment (WSA) containing specific information from the water service provider is required in conjunction with a development project (California Water Code Sections 10910-10915). Under Senate Bill (SB) 610 (Water Code Section 10910 and 10912), it is the responsibility of the water service provider (i.e., LADWP) to prepare a WSA for every new development "project" within its service area that is subject to CEQA. If the provider determines that water supplies are, or will be, insufficient, plans must be submitted for acquiring additional water supplies. Additionally, the Bill requires the lead agency to include the WSA and other pertinent information in the environmental document prepared (i.e., EIR) for any project pursuant to the act. Similarly, SB 221 (Government Code Section 65867.5 and 66473.7), a companion bill to SB 610, modifies state law to focus on the link between water supply and land use planning, particularly for new large projects in non-urban areas. The LADWP has incorporated the provisions of SB 610 and SB 221 into its water supply planning process. The WSA for individual projects, such as the proposed Project, in conformance with the UWMP, evaluates the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and how they would be secured if needed. The types of projects subject to the requirements of SB 610 and SB 221 tend to be larger projects that may, or may not have, been included within the growth projections of the UWMP. The WSA for such projects, in conformance with the UWMP, evaluates the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and how they would be secured if needed.

The LADWP requires consultation with applicants for Projects that would be completed after 2015 through a Service Advisory Request (SAR) in order to assess whether the current infrastructure (e.g., water lines) would be able to accommodate the increased water demand based on fire flow requirements. If the SAR determines that current infrastructure would not, the LADWP requires that additional infrastructure be constructed at the applicant's expense.

Distribution mains are located throughout the Project area. A 12-inch-diameter line is located in Terminal Way and 20-inch- and 24-inch-diameter lines are located in Earle Street easements (NavigateLA, 2009).

3.13.2.2.2 Wastewater

The City of Los Angeles Department of Public Works, Bureau of Sanitation provides wastewater treatment and conveyance service for most of the City and numerous jurisdictions or agencies that contract with the City for wastewater conveyance and treatment. The City thus serves as a regional wastewater provider. The Bureau of Sanitation maintains sewer lines, force mains, and pump stations throughout the proposed Project area. Wastewater is conveyed from the Project area to the Terminal Island Water

[2] Chapter 11.4 Water Supply Assessments of the UWMP is incorporated by reference and is available at LAHD, Environmental Management Division 222 W. 6th Street, Suite 1080 , San Pedro, California, and online at: http://www.ladwp.com/ladwp/cms/ladwp014334.pdf

Reclamation Plant (TIWRP), an advanced water treatment facility located at 445 Ferry Street just north of the Project site (refer to Figure 3.13-1). The facility treats industrial wastewater generated on Terminal Island in addition to wastewater generated in the communities of Wilmington, San Pedro, and areas of Harbor City. The current capacity of the TIWRP is 30 million gallons per day (mgd), but it currently operates at approximately 58 percent capacity, treating 17.5 mgd in 2008/09 (City of Los Angeles Department of Public Works, Bureau of Sanitation, 2009a). The TIWRP's treatment processes include tertiary treatment and microfiltration (MF)/reverse osmosis (RO), and produces biosolids and biogas for beneficial reuse (City of Los Angeles Department of Public Works, Bureau of Sanitation, 1999). The majority of TIWRP's liquid effluent (tertiary treatment[3]) flows to the Los Angeles Outer Harbor (in the vicinity of Pier 400) to a point approximately 3,000 ft offshore via a 60- to 72-inch-diameter outfall, which extends beneath the existing Project site (NavigateLA, 2011). Some tertiary-treated effluent is further treated using advanced treatment technologies for reuse (irrigation and industrial water supplies) in the Harbor area.[4] The MF/RO facilities at the TIWRP are capable of producing approximately 5 mgd.

The City's Department of Public Works prepared the Integrated Resources Plan (IRP) for the Wastewater System in 2006, which projected future average dry weather flow in the Terminal Island Service Area (TISA) to be 19.9 mgd by 2020 from its current flows of approximately 17 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation and LADWP, 2006). These projections assume that each employee within the TISA generates 24 gallons of wastewater per day, or gallons per capita per day (gpcd).

3.13.2.2.3 Storm Drainage

Storm drains are located throughout the proposed Project area and maintained by the LAHD, City, and Los Angeles County. Storm drainage on Terminal Island consists of surface runoff catch basins along Seaside Avenue near Navy Way and a 96-inch-diameter outfall line. This system collects the water and discharges it in the East Basin Channel. An additional system runs parallel to Ferry Street near Seaside Avenue and consists of a 78-inch-diameter outfall line. This outfall also terminates at the East Basin Channel, northeast of the Vincent Thomas Bridge. Other storm drain systems include a 78-inch-diameter line along Earle Street and the 48-inch-diameter Terminal Island storm drain (USACE and LAHD, 2007). Storm drains within the proposed Project vicinity sufficiently accommodates current demands.

Site runoff on the existing terminal is collected via an on-site storm drain system and is directed to the Berths 302-305 wharf frontage, where it is discharged to the Pier 300 Channel, and no runoff is discharged to the Pier 300 Shallow Water Habitat. In addition, tenants are expected to maintain and implement a storm water pollution prevention plan (SWPPP) in order to ensure that pollution to storm drain systems are minimized.

[3] There are three primary treatment stages at the TIWRP, Primary, Secondary, and Tertiary. Primary treatment removes most solids through settlement. In Secondary treatment, further solids are removed via biological processes. Tertiary treated effluent is essentially secondary effluent that is further processed to remove the very smallest solid particles using coagulants and sand filters. Additional information on wastewater treatment at TIWRP is available at: http://www.lasewers.org/treatment_plants/terminal_island/flowchart/flowchart.htm.

[4] Advanced water treatment is a two-stage process to remove various size pollutants using MF, RO, and chlorination. The water is then dechlorinated prior to beneficial reuse in the Harbor area. Uses include industrial process water, irrigation, and to maintain a seawater intrusion barrier.

3.13.2.2.4 Solid Waste

Existing terminal operations at Berths 302-305 generate solid waste consisting of nonhazardous materials, such as food and beverage containers, paper products, and other miscellaneous personal trash disposed of by on-site staff. Solid waste generated by terminal operations complies with federal, state, and local regulations and codes pertaining to solid waste disposal, as would solid wastes generated from subsequent terminal operations.

A 70 percent diversion rate is California's goal for the year 2020 (California Integrated Waste Management Board (CIWMB)/CalRecycle, 2004). According to the Bureau of Sanitation's 2009-2010 Year at a Glance report, the City achieved a recycling/diversion rate of 65 percent, which exceeds the California Solid Waste Management Act (AB 939) requirement of 50 percent (City of Los Angeles, Department of Public Works, Bureau of Sanitation, 2010). AB 939 mandates every city in the state to divert at least 50 percent of solid waste from landfill disposal through source reduction, recycling, and composting. In 2010, the diversion rate of the Port was approximately 96 percent, or 62,323.95 tons (POLA, 2010).

Solid waste generated by terminal operations complies with federal, state, and local regulations and codes pertaining to solid waste disposal, including Chapter VI Article 6 Garbage, Refuse Collection of the City of Los Angeles Municipal Code, Part 13 Title 42-Publish Health and Welfare of the California Health and Safety Code, and Chapter 39 U.S. Solid Waste Disposal Code.

LAHD maintains an asphalt/concrete recycling facility at the intersection of E. Grant Street and Foote Avenue in east Wilmington. Asphalt/concrete debris from demolition occurring at the Port (not contaminated above levels set by regulation) is crushed at the facility for reuse construction purposes within the Port.

The following programs are implemented by the Port to assist in waste diversion (POLA, 2008):

- Duplex Printing and Photocopying;
- Wood Waste Diversion Program;
- Green Waste Recycling Program;
- Administrative Office Recycling Program;
- Toner Cartridge Recycling;
- Ferrous Metals Recovery Program;
- Inerts Recycling Program;
- Motor Oil Recycling Program;
- Tire Recycling Program;
- Office Paper Recycling;
- Cardboard Recycling Program;
- Scrap Metal Reuse;
- Beverage Container Recycling;

- Fish Sludge Recovery;
- Wood Waste Collection Program;
- Nonfood Donation; and
- Office Furniture Source Reduction.

Port tenants usually contract with private waste haulers for solid waste disposal. In general, the City's Bureau of Sanitation and Browning Ferris Industries (BFI) (a private waste management service) provide solid waste collection and disposal services at the proposed Project site. Los Angeles County Ordinance 7A prohibits solid waste from the City from being handled by or disposed of in facilities and landfills operated by the Los Angeles County Sanitation District.

There are three types of disposal facilities within the state, including: (1) Class III Landfills (Municipal Solid Waste Landfills); (2) Unclassified (Inert) Landfills; and (3) Transformation (waste to energy) Facilities. Currently, nonhazardous solid waste generated at Berths 302-305 is disposed of at the Sunshine Canyon Landfill or Chiquita Canyon Sanitary Landfill, depending on daily capacities and hours of operation. Hazardous waste or contaminated soil may be disposed of at the Clean Harbor Buttonwillow Landfill or the Kettleman Hills facility. These and other solid waste disposal facilities that could be used during construction and/or operation of the proposed Project or alternative are described below.

Sunshine Canyon Landfill (hereafter referred to as Sunshine Canyon) is located at 14747 San Fernando Road in Sylmar, CA, approximately 50 miles from the Project site. Sunshine Canyon Landfill is owned and operated by BFI, and has a maximum permitted throughput of 12,100 tons per day, with 5,500 tons per day allotted for City use and 6,600 for County use (CIWMB/CalRecycle, 2010a). As of July 31, 2007, this facility had a remaining capacity of 112,300,000 cy, and currently has an estimated closure date of 2037 (CIWMB/CalRecycle,, 2011). The waste types accepted at this facility include construction and demolition debris, green materials, industrial, inert, and mixed municipal.

Chiquita Canyon Sanitary Landfill (hereafter referred to as Chiquita Canyon) is located at 29201 Henry Mayo Drive Castaic, CA, approximately 63 miles from the Project site. This facility is owned and operated by Chiquita Canyon, Inc., and has a maximum permitted throughput of 6,000 tons per day. The remaining capacity was approximately 29,300,000 cy as of November 23, 2006, and has an estimated closure date of 2019. The waste types accepted at this facility include mixed municipal, green materials, construction and demolition debris, industrial, and inert (CIWMB/CalRecycle, 2010b).

Solid waste generated by Port facilities and transported to Sunshine Canyon or Chiquita Canyon is determined by using a generation factor of 0.372 ton per year per acre of land under the proposed Project or alternative (POLA, 2008). In addition to the Sunshine Canyon and Chiquita Canyon facilities, the City diverts approximately 600 tons per day of solid waste to the El Sobrante Landfill in Riverside County. The El Sobrante Landfill (hereafter referred to as El Sobrante) is located at 10910 Dawson Canyon Road in Corona, CA, approximately 61 miles from the Project site. This facility has a maximum permitted throughput of 16,054 tons per day with a remaining capacity of 145,530,000 cy (as of April 6, 2009), and has an estimated closure date of 2045 (CIWMB/CalRecycle,

2010d). A total of 4,000 tons per day of capacity is reserved for refuse generated in Riverside County (Riverside County Waste Management Department, 2009).

Hazardous materials, such as contaminated soils and petroleum by-products, which are encountered during construction, are first tested to characterize the nature and extent of contamination. Based on the characterization, treatment and disposal options are developed. In general, treatment options are considered before disposal because treatment can be less expensive and because long-term liability can be avoided by rendering contaminated soil inert. Treatment of petroleum-contaminated soils can include thermal desorption. Other processes include stabilization or fixation. There are numerous hazardous waste treatment facilities in California, including TPS Technologies in Adelanto, and TRS in Azusa. Based on the characterization, if disposal is required, wastes would be taken to an appropriate disposal facility or landfill, including Class I landfills.

The closest Class I disposal facility is the Clean Harbor Buttonwillow Landfill (hereafter referred to as Buttonwillow), which is located at 2500 West Lokern Road, approximately 163 miles from the Project site (located approximately 36 miles west of Bakersfield). This facility has a maximum permitted throughput of 10,482 tons per day with a maximum capacity of 14,293,760 cy (CIWMB/ CalRecycle, 2009), a current constructed capacity of 950,000 cy, and has an estimated closure date of 2040 (CIWMB/ CalRecycle, 2009). The waste types accepted at this facility (classified as Class I) includes contaminated soil, industrial, other designated, and other hazardous. Another Class I facility that could be used for disposal of hazardous waste is the Kettleman Hills facility. Kettleman Hills is a Class I and II facility located at 35251 Old Skyline Roads in Kettleman City, California, approximately 200 miles from the Project site. This facility has a maximum permitted throughput of 10,700,000 cy with 1.5 million cy of capacity remaining (CIWMB/ CalRecycle, 2007). The facility does not have an estimated closure date. The waste types accepted at this facility (classified as Class I) includes contaminated soils and industrial (CIWMB/CalRecycle, 2007).

Several other hazardous waste disposal sites are located in California and neighboring states. For asbestos-containing materials, Azusa Land Reclamation Company is the only facility in Los Angeles County that accepts this type of waste. Azusa Land Reclamation Company Landfill is located at 1211 West Gladstone Street, Azusa, California, approximately 40 miles from the Project site. This facility has a maximum permitted throughput of 6,500 tons per day with a remaining capacity of 42,930,251 cy (as of August 31, 2009), and has an estimated closure date of 2055. The waste types accepted at Unit 1 of this facility include asbestos, friable, inert, and tires (CIWMB/CalRecycle, 2010c).

3.13.2.2.5 Energy (Electricity and Natural Gas)

The LADWP provides electrical services within the City and the proposed Project area. The LADWP power system serves approximately 3.9 million people and is the largest municipal utility in the nation. The all-time peak load that LADWP provided was 5,708 megawatts, which occurred in July 2005. The LADWP has an installed generation capacity of 7,338 megawatts. The LADWP participates in the wholesale electric market but does not rely on it to serve the electricity needs of its customers.

The Port and the rest of the City receive electricity from a network of power stations and other sources operated by LADWP. The industrial power station closest to the Port has

four main 138-kilovolt (kV) supply lines, two from the Harbor Generating Station, and two from North Wilmington. A 34.5-kV line connects with the steam plant generator, and underwater circuits from San Pedro (a 4.8-kV line) and Wilmington (a 34.5-kV line) cross to Terminal Island. Several other electrical power cables are distributed throughout the Harbor area. The LADWP maintains the Harbor Generating Station at the intersection of Island Avenue and Harry Bridges Boulevard (refer to Figure 3.13-1) and power lines throughout the Project area, which feed the existing substations and transformers on the terminal site. Existing electrical distribution facilities on-site include existing LADWP industrial stations, a Port main substation, and planned LADWP industrial station (to provide AMP power for Berths 302 through 305 under a separate project) near the existing Roadability/Genset area. The on-site facilities are designed to step the incoming voltage down from 34.5 kV (incoming power) to lower voltages depending on the use (including 4,160 volts for the cranes and 480 volts for general terminal uses such as lights and buildings).

The Southern California Gas Company (Gas Company) provides natural gas in the proposed Project area. There is a medium pressure gas distribution line (3-inch-diameter) along Earle Street that supplies gas to the proposed Project site and adjacent terminal uses.

As a public utility, the Gas Company is under the jurisdiction of the California Public Utilities Commission (CPUC) and can be affected by actions of federal regulatory agencies. California natural gas demand is expected to grow at a modest rate of 0.07 percent per year from 2010 to 2030. Residential gas demand is expected to increase at an annual average rate of 0.05 percent. Demand in the core commercial market is expected to grow at an annual rate of only 0.22 percent; whereas demand in the industrial sector is expected to decline by 0.58 percent annually as California continues its transition from a manufacturing-based to a service-based economy (California Gas and Electric Utilities, 2010). Building and appliance energy efficiency standards have reduced the need for gas heating and water heating for each business in the state (California Energy Commission, 2010).

California's existing gas supply is regionally diverse (the southwestern U.S., the Rocky Mountains, and Canada) and includes supplies from onshore and offshore sources. Southern California currently operates in an environment where interstate pipeline capacity is in excess of anticipated demand. The interstate pipeline systems, along with local California gas supplies, deliver gas to Los Angeles area customers through the Gas Company. The 2010 California Gas Report forecasts a 20-year period, through the year 2030. The report projects the gas demand to increase from 6,128 million cubic feet (MMcf)/day in 2010 to 6,223 MMcf/day by 2030, which represents a cumulative growth of just 1.55 percent over the 20-year period (California Gas and Electric Utilities, 2010).

3.13.3 Applicable Regulations

The Port is directed by internal standards and policies that guide the provision of service to its customers. Each agency charged with protecting the public (LAFD, LAPD, Port Police, and USCG) maintains specific standards, such as response times and levels of service that must be adhered to during construction and operation of a project. Each public utility agency and private utility provider, including LADWP and the Gas Company, are directed by internal standards and policies that guide the provision of service to their customers. Specific to the LADWP and Gas Company, the California

Energy Commission (CEC) regulates the provision of natural gas and electricity within the state.

3.13.3.1 Public Services

The following subsections discuss the various codes, regulations and policies applicable to fire, police, and emergency services at the state, regional, and local levels:

3.13.3.1.1 California State Fire Code

The State Fire Marshal (SFM), by State Law, is responsible for coordination of the State's fire and life safety codes. The SFM must review the proposed regulations of State Agencies that promote fire and life safety before the regulations can be submitted for approval. The SFM Code Development and Analysis Program staff regularly reviews Title 19 of the California Code of Regulations, titled Public Safety (which discusses fire Safety standards), for relevancy, necessity, conflict, duplication, and overlap. They also implement legislative mandates to develop regulations relating to fire and life safety involving the various occupancy classifications under the authority of the California State Fire Marshal. This encompasses the actual administrative processing of regulations from concept to promulgation in the California Code of Regulations.

3.13.3.1.2 City of Los Angeles Municipal Code

The LAMC, last amended in August, 2011, contains 19 chapters, including a chapter on fire and police protection titled *Public Safety and Protection* (Chapter 5) (City of Los Angeles, 2011). Article 2, titled *Police and Special Officers*, contains regulations governing administrative issues, such as requirements for police badges and uniforms. Article 7, titled *Fire Protection and Prevention*, contains the Fire Code for the City of Los Angeles. The Fire Code includes information pertaining to administrative issues, such as the requirements for filling out and submitting Hazardous Materials Release Response Plans and Inventory Statements, and technical requirements associated with the storage, management and disposal of hazardous materials such as underground chemical storage tanks, ACM/ACBM, and various other combustible and flammable materials.

3.13.3.1.3 City of Los Angeles General Plan – Safety Element

The Safety Element of the City of Los Angeles General Plan sets forth specific policies and objectives related to safety. These policies and objectives emphasize hazard mitigation, emergency response, and disaster recovery (City of Los Angeles, 1996).

3.13.3.1.4 Port of Los Angeles Plan

The Port of Los Angeles Plan is a part of the General Plan of the City of Los Angeles (City of Los Angeles, 1982). The proposed Project occurs within the boundaries of the Port of Los Angeles Plan, which was adopted on September 28, 1982. The Plan has subsequently been amended in 1988, 1991, 1992, and 1994. The Port of Los Angeles Plan is intended to promote an arrangement of land and water uses, circulation and services which will encourage and contribute to the economic, social and physical health, safety, welfare and convenience of the Port, within the larger framework of the City; guide the development, betterment and change of the Port to meet existing and anticipated needs and conditions; contribute to a healthful and safe environment; balance growth and stability to reflect economic potentialities and limitations, land and water

developments and other trends; and protect investment to the extent reasonable and feasible.

Policy 13 in the Port of Los Angeles Plan states that road, rail, and access systems within the Port and connecting links with road, rail, and access systems outside the Port shall be located and designed to provide necessary, convenient and safe access to and from land and water areas consistent with the long-term preferred uses for the Port and consistent with the applicable elements of the Los Angeles General Plan and the Local Coastal Program.

In addition, the standards and criteria for port area circulation calls for consideration of the development of an efficient rail transportation system with appropriate transfer facilities near the Port to reduce adverse impacts of Port development projects upon local and regional transportation networks.

3.13.3.2 Utilities

The following subsections discuss the various codes, regulations and policies applicable to water, wastewater, storm drain, solid waste, and energy services (electricity and natural gas) on the state, regional, and local levels. Each public utility agency and private utility provider, including the LADWP and Gas Company, are directed by internal standards and policies that guide the provision of service to their customers. Specific to the LADWP and Gas Company, the CEC and CPUC regulate the provision of natural gas and electricity within the state.

3.13.3.2.1 Maritime Transportation Security Act

The Maritime Transportation Security Act (MTSA) and its international equivalent, the ISPS Code (adopted by the IMO), require Port authorities and facility operators to designate and train company, vessel, and facility security officers and develop security plans for facilities and vessels based on security assessments and surveys. MTSA regulations also guide implementation of security measures specific to the operations of each facility and compliance with maritime security levels. Regulations regarding the submittal of security plans became effective December 31, 2003, and operational compliance was mandated by July 1, 2004.

3.13.3.2.2 California Urban Water Management Act

The California Urban Water Management Planning Act requires urban water suppliers to initiate planning strategies that make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry-water years. The LADWP would be the water supplier, and as such, the proposed Project or alternative would be under the jurisdiction of the current UWMP, pursuant to the California Urban Water Management Planning Act.

3.13.3.2.3 California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327 [Public Resources Code Chapter 18 Section 42900]) required each jurisdiction to adopt an ordinance by September 1, 1994, requiring any "development project" for which an application for a building permit is submitted to provide an adequate storage area for

collection and removal of recyclable materials. These regulations govern the transfer, receipt, storage, and loading of recyclable materials at the Port.

3.13.3.2.4 AB 939: California Integrated Waste Management Act

The California Integrated Waste Management Act (AB 939) (Public Resources Code Section 40000 et seq.) was designed to focus on source reduction, recycling and composting, and environmentally safe landfilling and transformation activities. This act required cities and counties to divert 25 percent of all solid waste from landfills and transformation facilities by 1995, and 50 percent by year 2000. In addition, the Mayor has called for implementation programs to assist the City in meeting or exceeding the goal of 75 percent waste diversion by 2013 (City of Los Angeles Department of Public Works, Bureau of Sanitation, 2009b). The City met and exceeded the year 2000 goals; in 2009, the City's diversion rate was 60 percent (City of Los Angeles, Office of City Clerk, 2009). In 2010, the diversion rate at the Port was approximately 96 percent or 62,323.95 tons (POLA, 2010).

3.13.3.2.5 California Building Code CCR, Title 24, Part 6

Title 24, Part 6 of the California Building Code describes the California energy efficiently standards for residential and nonresidential buildings. These standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption and have been updated periodically to include new energy efficiency technologies and methods. Title 24 requires building according to energy efficient standards for all new construction, including new buildings, additions, alternations, and, in nonresidential buildings, repairs.

3.13.3.2.6 City of Los Angeles Plans and Directives

Solid Waste Plans

The City has initiated the Recovering Energy, Natural Resources, and Economic Benefit from Waste for Los Angeles Plan (RENEW LA) as a guide for solid waste and resource management in the future (City of Los Angeles, 2005). The RENEW LA Plan is a comprehensive plan for the recovery and beneficial use of materials currently being disposed of in landfills. The key goal of the RENEW LA Plan is creation of a new system of resource management based on the concept of "Zero Waste." The goal of zero waste as defined in the Plan is to reduce, reuse, recycle, or convert the resources now going to disposal to achieve an overall diversion level of 90 percent or more by 2025 and to leave for disposal only a small amount of inert residual material (City of Los Angeles, 2005). The Plan not only puts forth the vision of where the City wants to be in 2025 but also provides a guiding "blueprint" of how to get there. The blueprint highlights milestones, facility development, and key actions to be accomplished during four 5-year time periods: 2005 to 2010, 2010 to 2015, 2015 to 2020, and 2020 to 2025. Actions will be required in technology and programs, policy, and education.

Building on the RENEW LA Plan, the City is developing the Solid Waste Integrated Resources Plan (SWIRP), which will serve as the 20-year master plan for City solid waste and recycling programs (City of Los Angeles, 2009b). The SWIRP will outline City objectives to provide sustainability, resource conservation, source reduction, recycling, renewable energy, maximum material recovery, and public health and environmental protection for solid waste management planning through 2025—leading Los Angeles toward being a "zero waste" city. Achieving zero waste will require radical

changes in three areas: product creation (manufacturing and packaging), product use (use of sustainable and recyclable products), and product disposal (resource recovery or landfilling). Changes in these areas will affect how we live, work, and interact with the environment. Stakeholders will be instrumental in guiding this visionary 20-year solid waste management plan. This plan will seek input from stakeholders representing a broad section of the community, from diverse cultural backgrounds and income levels, and will result in the development and implementation of a 20-year master plan for the City's solid waste and recycling programs.

LADWP Urban Water Management Plan

Pursuant to the California Urban Water Management Planning Act, the LADWP has prepared an UWMP to describe how water resources are used and to present strategies that will be used to meet the current and future water needs of the City. To meet the objectives of the California Urban Water Management Planning Act, the UWMP focuses primarily on reliability of the water supply and efficiency measures for water usage. Refer to Section 3.13.2.2.1 for additional information about the current 2010 UWMP, and WSA requirements under SB 610 and SB 221.

LADWP Integrated Resources Plan

The LADWP regularly prepares Power Integrated Resources Plans (Power IRPs) to provide a framework to assure that future energy needs of LADWP customers are reliably met at the least cost and are consistent with the City commitment to environmental excellence (City of Los Angeles, 2010b). LADWP has issued the 2010 Final Draft Power IRP, which provides forecasts and a 20-year framework to ensure that current and future energy needs of the City can be met over the next 20 years (LADWP, 2010b). A new LADWP Power IRP will be issued in 2012, and every two years following. Under the Los Angeles City Charter (Sections 220 and 673), LADWP has the power and duty to construct, operate, maintain, extend, manage, and control water and electric works and property for the benefit of the City and its habitats. As a consequence, LADWP is charged with maintaining sufficient capability to provide its customers with a reliable supply of power.

In 2002, SB 1078 (Public Utilities Code Chapter 2.3 Section 387, 390.1, and 399.25) implemented a Renewable Portfolio Standard, which established a goal that 20 percent of the energy sold to customers be generated by renewable resources by 2017. The Power IRP provides objectives and recommendations to reliably supply LADWP customers with power and to meet the 20 percent renewable energy goal by 2010.

Subsequent to the 2006 IRP, LADWP prepared a Load Forecast predicting that electricity consumption will increase at an average rate of 1.1 percent per year, and that peak demand will increase an average of 70 megawatts per year for the foreseeable future. For 2025, LADWP predicts that peak demand will reach 7,370 megawatts and that total resources will amount to 8,516 megawatts (including a reserve margin).

Wastewater Facilities Plan

The City prepares a wastewater facilities plan approximately every 10 years to review the existing wastewater treatment system, project future wastewater service demands, and identify various facility improvements to meet future demands. Future wastewater demand projections are based, in part, on SCAG population projections.

The Los Angeles Bureau of Sanitation and LADWP prepared the IRP for the wastewater program. Flows generated in the Port are conveyed to the TIWRP. The IRP projects that by the Year 2020, wastewater flows within the TIWRP service area will grow to 19.9 mgd from its current flows of approximately 17.5 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation and LADWP, 2006). With the capacity of the TIWRP at 30 mgd, approximately 10 mgd in daily capacity at TIWRP would remain unused by 2020. The projected wastewater flow level increase from 16.2 mgd to 19.9 mgd over a 14-year period (2006 to 2020) is equivalent to an annual increase in wastewater generation in the TISA of approximately 0.264 mgd. Applying this growth percentage to project future flows in the service area beyond the 2020 planning horizon in the IRP shows that, in 2027, service area wastewater flows could reach 21.8 mgd, which is below TIWRP capacity.

Port Leasing Policy

The Port Leasing Policy requires that all new leases include applicable Port environmental requirements including, but not limited to: air emission controls; water, stormwater and sediment quality; trash management and recycling; lighting and noise control and facility appearance; hazardous material management requirements; facility restoration and decommissioning requirements; and CEQA mitigation measures and reporting requirements.

CalGreen

CalGreen is a statewide mandatory green building code all cities in California were required to adopt by January 1, 2011. CalGreen requires new standards in materials reuse, locally-sourced materials, water/energy efficiency, and indoor air quality. To meet the CalGreen requirements, the City of Los Angeles adopted the Green Building Standards Code (LA Green Code) which establishes mandatory sustainable design standards. All new buildings are required to meet this new code, and additions/expansions valued at over $200,000 are also subject to the LA Green Code.

3.13.4 Impacts and Mitigation Measures

3.13.4.1 Methodology

Public Services

The proposed Project and alternatives were evaluated to determine if police, USCG, and fire protection facilities are adequately staffed and located so they could respond to an emergency situation in a timely manner without the provision of additional physical facilities. Agencies were contacted to obtain information regarding their existing and projected service capacity, as well as the projected impacts that could result from implementation of the proposed Project or an alternative. Wherever possible (e.g., for agencies that provided a demand factor or service ratio), quantifications were included to demonstrate specific demands.

The Port Police maintains a force of approximately 125 sworn officers and a minimum rate of 0.72 officers per square mile (the Port is approximately 7,500 acres or 11.7 square miles, so there would be more or less 10 officers per square mile within the Port service area). Although the Port Police bases its staffing needs on Homeland Security data and needs, potential Port Police officer demands under conditions representing baseline,

proposed Project, and each alternative were estimated using this service ratio and the applicable site acreages, as shown in Table 3.13-1.[5]

Table 3.13-1: Port Police Demand

	Area (acre)	Conversion (mi^2/acre)	Area (mi^2)	Service Ratio (officer/mi^2)	Total Officer Demand
CEQA Baseline	291	0.0015625	0.455	0.72	0.328
NEPA Baseline	291	0.0015625	0.455	0.72	0.328
Proposed Project	347	0.0015625	0.542	0.72	0.390
Alternative 1	291	0.0015625	0.455	0.72	0.328
Alternative 2	291	0.0015625	0.455	0.72	0.328
Alternative 3	291	0.0015625	0.455	0.72	0.328
Alternative 4	302	0.0015625	0.472	0.72	0.340
Alternative 5	317	0.0015625	0.495	0.72	0.356
Alternative 6	347	0.0015625	0.542	0.72	0.390

Source: Provinchain, pers. comm.., 2007.
Acreage includes land area only; mi^2 = square mile

Public Utilities

Assessment of the proposed Project and each alternative's impacts on utilities (water, wastewater, storm drainage, and solid waste) and energy providers (electricity and natural gas) varies depending on the utility; however, the evaluations generally include a comparison of the Project-generated demand against existing and anticipated resource supplies and/or conveyance capacity. Quantifications of demands and generations were included based on factors provided by the applicable agencies.

Water supply or conveyance impacts are typically evaluated by estimating water consumption factors associated with proposed Project, or alternative, site land use(s) or, for nonresidential development, unit demand factors per acre or gross square footage, as established by the City. LADWP maintains water consumption factors of 150 gallons per day (gpd) per 1,000 sf of office use space and 80 gpd per 1,000 sf of industrial use space (City of Los Angeles, 2006). The office and industrial areas were determined using the total square footage of the various buildings shown in Figure 2-2 in Chapter 2 (Project Description). Table 3.13-2 shows the water demand and the percentage of water supply this demand represents under baseline, proposed Project, and alternative conditions. The projected demand was determined using the applicable LADWP and Department of Public Works factors and the estimated throughput. As shown in Table 3.13-2 below, it is anticipated that LADWP would be able to meet the demands of the proposed Project or alternatives through 2027. On April 5, 2011 the Board of Commissioners of LADWP approved the WSA for the proposed Project. Based on the findings of the assessment, LADWP has determined that a sufficient water supply is available to serve the proposed Project (Appendix J).

Assessment of impacts on sewers or wastewater treatment systems generally includes the comparison of the Project/alternative-related, land-use-based wastewater flow generation to the existing and projected wastewater treatment capacity of the TIWRP, which is

[5] LAPD is not the primary police service provider in the Port of Los Angeles and only provides support to the Port Police under special circumstances and therefore is not factored in the police demand ratio.

30 mgd. Wastewater generation is a function of water use, which is typically slightly less than or equal to water use because water use in facilities flows from internal devices to internal drains that connect with the sewer system. For purposes of this evaluation, each employee at the terminal is assumed to generate 24 gpd of wastewater, consistent with wastewater projections developed by the LADWP for the wastewater IRP. The impact analysis projects water use based on the wastewater generation for each alternative, as well as the percent the generation amounts would contribute to the existing flow and use available TIWRP capacity (see Table 3.13-3).

Assessment of impacts to the storm drain system is based primarily on the determination of the contribution of the proposed Project or alternative to stormwater runoff compared to existing conditions, or the diversion or disruption of surface water flows such that flooding would occur.

Impacts related to solid waste generally involve the estimation of the Project/alternative-related, land use-based, solid waste generation compared to the capacity of the landfill(s) serving the proposed Project area. The solid waste generated under baseline, proposed Project, and each alternative's conditions were determined using the generation factor (e.g., 0.372 tons per year per acre) provided in the *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006). The percent contributions to the permitted daily capacity of the Sunshine Canyon and Chiquita Canyon landfills were then determined based on the estimated solid waste generation. Assessment of impacts on solid waste capacity generally includes the comparison of the Project/alternative-related solid waste generation relative to long-term solid waste capacity (see Table 3.13-4).

Table 3.13-2: Water Demand

	CEQA Baseline	NEPA Baseline	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
Office Uses Factor (gpd/1,000 sf)	150	150	150	150	150	150	150	150	150
Total Office Area (sf)	43,084	43,084	52,620	43,084	43,084	43,084	52,620	52,620	52,620
Office Water Demand (gpd)	*6,463*	*6,463*	*7,893*	*6,463*	*6,463*	*6,463*	*7,893*	*7,893*	*7,893*
Industrial Uses Factor (gpd/1,000 sf)	80	80	80	80	80	80	80	80	80
Total Industrial Area (sf)	60,088	60,088	86,661	60,088	60,088	60,088	86,661	86,661	86,661
Industrial Water Demand (gpd)	*4,807*	*4,807*	*6,933*	*4,807*	*4,807*	*4,807*	*6,933*	*6,933*	*6,933*
Other Water Factor [a]	24 gpcd[a]	24 gpcd[a]	24 gpcd[a]	24 gpcd[a]	24 gpcd[a]	24 gpcd[a]	24 gpcd[a]	24 gpcd[a]	24 gpcd[a]
Total Other Unit	1,041	1,292	2,152	1,292	1,292	1,599	1,867	2,196	2,152
Other Water Demand (gpd)	*24,984*	*31,008*	*51,648*	*31,008*	*31,008*	*38,376*	*44,808*	*52,704*	*51,648*
Total Water Demand (gpd)	**36,254**	**42,278**	**66,474**	**42,278**	**42,278**	**49,646**	**59,634**	**67,530**	**66,474**
Conversion (gal/acre-feet)	325,851.44	325,851.44	325,851.44	325,851.44	325,851.44	325,851.44	325,851.44	325,851.44	325,851.44
Total Water Demand (acre-feet/day)	0.11	0.13	0.20	0.13	0.13	0.15	0.18	0.21	0.20
Total LADWP Water Demand (afy) [b]	**40.61**	**47.36**	**74.46**	**47.36**	**47.36**	**55.61**	**66.80**	**75.64**	**74.46**
LADWP Demand (acre-feet) [c]	621,458	710,800	710,800	710,800	710,800	710,800	710,800	710,800	710,800
% of LADWP Demand	**0.00653**	**0.00666**	**0.01048**	**0.00666**	**0.00666**	**0.00782**	**0.00940**	**0.01064**	**0.01048**

Source: LADWP 2010a.

[a] City's Bureau of Sanitation's wastewater generation factor was used (24 gallons per capita per day [gpcpd]) for employees.

[b] The total LADWP water demand associated with the proposed Project does not account for water efficiency requirement ordinance savings that would be applied by LADWP under water conservation commitments

[c] FY2035 water demand and supply projection was used for the proposed Project and alternatives (based on 2010 UWMP).

1
2

1

Table 3.13-3: Wastewater Generation

	CEQA Baseline	NEPA Baseline	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
Total Wastewater (gpd)[a]	36,254	42,278	66,474	42,278	42,278	49,646	59,634	67,530	66,474
Total Wastewater (mgd)	**0.036**	**0.042**	**0.066**	**0.042**	**0.042**	**0.050**	**0.060**	**0.068**	**0.066**
Existing Flow (mgd)	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
% of Existing Flow	**0.21**	**0.24**	**0.38**	**0.24**	**0.24**	**0.28**	**0.34**	**0.39**	**0.38**
Plant Capacity (mgd)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
% of Plant Capacity	**0.12**	**0.14**	**0.22**	**0.14**	**0.14**	**0.17**	**0.20**	**0.23**	**0.22**

Note:
[a] Water usages projections from Table 3.13-2 are used as the proxy for wastewater generation because the amount of wastewater used is a function of the amount of water used.

2

Table 3.13-4: Solid Waste Generation

	NEPA Baseline	CEQA Baseline	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
Area (acre) or Unit	291	291	347	291	291	291	302	317	347
Generation Factor (tons/year/acre) [a]	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372
Total Solid Waste (tons/year)	**108.252**	**108.252**	**129.084**	**108.252**	**108.252**	**108.252**	**112.344**	**117.924**	**129.084**
Total Solid Waste (tons/day)	0.297	0.297	0.354	0.297	0.297	0.297	0.308	0.323	0.354
Chiquita Canyon Landfill Permitted Throughput (tons/day)	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
% Chiquita Canyon Landfill Permitted Throughput	**0.0050**	**0.0050**	**0.0059**	**0.0050**	**0.0050**	**0.0050**	**0.0051**	**0.0054**	**0.0059**
Sunshine Canyon Landfill Permitted Throughput (tons/day)	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
% Sunshine Canyon Landfill Permitted Throughput	**0.0054**	**0.0054**	**0.0064**	**0.0054**	**0.0054**	**0.0054**	**0.0056**	**0.0059**	**0.0064**
El Sobrante Landfill Permitted Throughput (tons per day) [b]	12,054	12,054	12,054	12,054	12,054	12,054	12,054	12,054	12,054
% El Sobrante Landfill Permitted Throughput	**0.0025**	**0.0025**	**0.0029**	**0.0025**	**0.0025**	**0.0025**	**0.0026**	**0.0027**	**0.0029**

Source: Port of Los Angeles, 2010; Los Angeles County Sanitation District, 2007; and CIWMB/CalRecycle, 2009 and 2010.

Notes:

[a] Solid waste generation factors for terminals provided by the Port of Los Angeles; factors for retail/commercial/industrial uses obtained from http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/

[b] Daily landfill capacity that is not allocated to Riverside County.

The percentages for each landfill represent a worst-case scenario, where all of the waste generated by the proposed Project or alternative would go to a single landfill. However, it is more likely that solid waste would be disposed of at more than one landfill.

ksf - kips per square foot

1

Electricity and Natural Gas

The determination of impacts on electricity and natural gas supplies depends on an estimation of demand generated by the proposed Project or alternative uses, compared to availability and capacity of existing supplies and the conveyance infrastructure.

Energy Conservation

The proposed Project and Alternatives will be analyzed to determine whether the development would result in inefficient, wasteful, and unnecessary consumption of energy. Any proposed Project or alternative elements that would increase energy efficiency will be discussed and quantified for purposes of comparison to existing conditions.

Demand for New Schools, Parks or Library Services

As analyzed in the NOI/NOP (Appendix A of this Draft EIS/EIR), development of the proposed Project or an alternative would not result in any demand for new schools, parks, or library services and, therefore, is not discussed further in this EIS/EIR. In addition, as discussed further in Chapter 8, Growth-Inducing Impacts, the proposed Project is for the redevelopment and expansion of an existing container terminal and does not include the development of new housing or population-generating uses that would place a demand on schools, parks or library services.

Public Services Relocation Plan

As described in Section 2.5.2.5 (Chapter 2, Project Description), as part of the proposed Project or alternative, the LAHD would prepare a Public Services Relocation Plan to address the public utilities and services that would require relocation or otherwise be affected during the proposed Project or alternative construction. The Plan would be developed with input from the service providers for the proposed Project site and would be submitted to City regulatory departments for review and approval. Construction affecting utilities could not begin until the Plan is approved. The Plan would be on file with the LAHD during construction.

3.13.4.1.1 CEQA Baseline

Section 15125 of the CEQA Guidelines requires EIRs to include a description of the physical environmental conditions in the vicinity of a project that exist at the time of the NOP. These environmental conditions normally would constitute the baseline physical conditions by which the CEQA lead agency determines if an impact is significant. For purposes of this Draft EIS/EIR, the CEQA baseline for determining the significance of potential Project impacts is the environmental set of conditions that prevailed at the time the NOP was published for the proposed Project - July 2009. The CEQA baseline takes into account the throughput for the 12-month period preceding July 2009 (July 2008 through the end of June 2009) in order to provide a representative characterization of activity levels throughout the year. The CEQA baseline conditions are described in Section 2.6.1. The CEQA baseline for this proposed Project includes approximately 1.13 million TEUs per year, 998,728 annual truck trips, and 247 annual ship calls that occurred on the 291-acre APL Terminal in the year prior to and including June 2009.

The CEQA baseline represents the setting at a fixed point in time and differs from the No Project Alternative (Alternative 1) in that the No Project Alternative addresses what is likely to happen at the proposed Project site over time, starting from the existing conditions. Therefore, the No Project Alternative allows for growth at the proposed Project site that could be expected to occur without additional approvals, whereas the CEQA baseline does not.

3.13.4.1.2 NEPA Baseline

For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined by comparing the proposed Project or other alternative to the NEPA baseline. The NEPA baseline conditions are described in Section 2.6.2. Briefly, the NEPA baseline condition for determining significance of impacts includes the full range of construction and operational activities the applicant could implement and is likely to implement absent a federal action, in this case the issuance of a USACE permit. The NEPA baseline includes minor terminal improvements in the upland area (i.e., conversion of a portion of the dry container storage unit area to reefers and utility infrastructure), operation of the 291-acre container terminal, and assumes that by 2027, the terminal (Berths 302 to 305) handles up to approximately 2.15 million TEUs annually and accommodates 286 annual ships calls and 2,336 on-way rail trips, without any federal action. Because the NEPA baseline is dynamic, it includes different levels of terminal operations at each study year (2012, 2015, 2020, 2025, and 2027).

Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA baseline is not bound by statute to a "flat" or "no-growth" scenario. Therefore, the USACE could project increases in operations over the life of a project to properly describe the NEPA baseline condition. Normally, any federal permit decision would focus on direct impacts of the proposed Project to the aquatic environment, as well as indirect and cumulative impacts in the uplands determined to be within the scope of federal control and responsibility. Significance of the proposed Project or alternative under NEPA is defined by comparing the proposed Project or alternative to the NEPA baseline (i.e., the increment).

The NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal Action Alternative. Under the No Federal Action Alternative, only minor terminal improvements (utility infrastructure, and conversion of dry container storage to refrigerated container storage) would occur, but no new cranes would be added, and the terminal configuration would remain as it was configured in 2008 (291 acres, 12 A-frame cranes, and a 4,000-ft wharf). However, forecasted increases in cargo throughput and annual ship calls would still occur as container growth occurs.

3.13.4.2 Thresholds of Significance

The following significance criteria are based on the *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006) and other criteria applicable to Port Projects. According to the *L.A. CEQA Thresholds Guide*, a project would normally be considered to have a significant impact on fire protection and law enforcement services based on several underlying factors that can affect the need for additional infrastructure to maintain these public services. Although the *L.A. CEQA Thresholds Guide* does not address thresholds of significance in regards to the Port Police and the USCG, these law enforcement agencies serve the proposed Project and would potentially be affected by proposed Project or alternative activities. Accordingly, the LAHD has included the USCG and Port Police in

this discussion. Therefore, the proposed Project or an alternative would have a significant impact on *public services* if it would:

PS-1 Burden existing USCG, LAPD, or Port Police staff levels and facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects

PS-2 Require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service

The proposed Project or an alternative would have a significant impact on *public utilities* if it would:

PS-3 Require or result in the construction or expansion of water, wastewater, or storm drain infrastructure or facilities, which could cause significant environmental effects

PS-4 Exceed existing water supply, wastewater treatment facilities, or landfill capacities

PS-5 Require new, off-site energy supply and distribution infrastructure, or capacity-enhancing alterations to existing facilities that are not anticipated by adopted plans or programs

The discussion under PS-4 assumes implementation of AB 939 because the City is actively implementing measures to comply with AB 939 requirements, such as recycling programs and other means of complying with the California Solid Waste Reuse and Recycling Access Act to reduce the generation of solid waste and assist the City in maintaining solid waste diversion goals pursuant to AB 939.

3.13.4.3 Impact Determination

3.13.4.3.1 Proposed Project

Impact PS-1: The proposed Project would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.

Construction of the proposed terminal gate and entrance improvements (i.e., main gate and Earle Street) may result in the temporary interruption and/or delays for law enforcement. During construction activities, additional demands on police personnel for traffic control services may also be required if roadway operations are impacted by installation or upgrade of utility connections within the public right-of-way. However, the contractor would be required pursuant to the Public Services Relocation Plan to coordinate with LAPD and the Port Police to allow for the identification of alternative response routes during all construction phases, thereby preventing the temporary interruption and/or delays for law enforcement responses. Although construction of the proposed Project would require staging equipment and materials on-site, this area would be secured from public access. Therefore, Project construction would not affect demand for law enforcement such that new facilities would be required.

The proposed terminal operations would result in increased vessel traffic in the proposed Project area; however, the related increases in demands for law enforcement would not be substantial because the proposed Project site already includes existing basic security equipment. Security infrastructure for the terminal includes: surveillance and access control systems that enhance perimeter security; water and shoreside surveillance; physical security (e.g., fencing, gates, lighting, signage, etc.); an Intrusion Detection System (a system to detect intruders); access control (a system/procedure for controlling who has physical access to the facility); surveillance systems (e.g., cameras); and communication systems (e.g., two-way radios, phones, Internet access). Improvements to the existing security infrastructure would occur as needed. In addition to City and Port Police protection, additional security service would be provided at the Project site by the terminal's internal security staff. The proposed Project would not increase the demand for law enforcement services because operational changes to the terminal would not occur.

Because the LAPD is not the primary police service provider in the Port area, providing support to the Port Police under special circumstances (as described in Section 3.13.2.1.2), the proposed Project development would only affect the Port Police directly. However, the proposed Project would result in a minimal increased likelihood that a special circumstance situation might occur. This would result in a negligible, if any, increase in demand on the LAPD because such situations would be rare or would not occur at all, and because the Port Police, not LAPD, would provide first response services.

The proposed Project would not burden the Port Police such that they would not be able to maintain an adequate level of service. Table 3.13-1 demonstrates that proposed development of 56 additional acres (0.0875 square mile) of terminal lands would require less than one (i.e., 0.062) new Port Police officer (as determined by applying the Port Police service ratio of 0.72 officers per square mile of Port land to the expansion area). This represents a negligible increase in demand for police protection personnel. Due to the ongoing increase in Port Police staffing levels in conjunction with Port development and Homeland Security requirements, existing service ratios would not decrease and average response times would not increase above the existing 5 minutes or less (Provinchain, pers. comm., 2007).

The USCG determines response times based on the distance that is required to travel to the various Port facilities. Proposed development would not affect USCG response times because the proposed Project would be located within the same operating distance as other existing on-site facilities and within the jurisdiction of Sector Los Angeles and Long Beach; therefore, response times would not increase due to the proposed Project. As shown in Table 2-1 (in Chapter 2, Project Description), the proposed Project would result in an increase in annual vessel calls; however, this increase would not diminish the resources or response times provided by the USCG due to adequate staffing levels.

CEQA Impact Determination

As previously described in Section 3.13.2.1.2, existing response times provided by the USCG, LAPD, and Port Police are considered adequate. During Project construction utility connections within the public right-of-way could result in the minor temporary interruption and/or delays in law enforcement responses. However, construction contractors would be required pursuant to the Public Services Relocation Plan to coordinate with LAPD and Port Police during construction of all utility connections in

roadways to establish alternative response routes, ensuring continuous law enforcement access to surrounding areas.

Although container terminal operations could result in a minimal increase in calls to the Port Police and/or LAPD, provisions for security features (including terminal security personnel, gated entrances, perimeter fencing, terminal and backlands lighting, camera systems, and additional security features mandated by the MTSA) would reduce the demand for law enforcement. As shown in Table 3.13-1, operation of the proposed Project would require 0.390 officers, or 0.062 more officers than the 0.328 officers required under CEQA baseline conditions. The proposed Project would be located within the same operating distance as the existing container terminal and on-site facilities served by the USCG and, therefore, would not increase emergency response times. Additionally, the increase of 141 vessel calls per year over CEQA baseline levels would not reduce available USCG resources or increase response times due to adequate staffing levels. Accordingly, the proposed Project would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects. Consequently, impacts to law enforcement services would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

A substantial increase in calls to the Port Police and LAPD would not occur during construction activities because construction staging would be on-site, which would have security features consistent with MTSA regulations that would minimize the demand for police protection.

As shown in Table 3.13-1, operation of the proposed Project would require 0.390 officers, which represents an increase of 0.062 over the 0.328 officers required by the 291 acres under NEPA baseline conditions. The proposed Project would be located within the same operating distance as the existing container terminal and on-site facilities served by the USCG and, therefore, would not increase emergency response times. Additionally, the increase of 141 vessel calls (from 286 in the NEPA baseline year) would not reduce available USCG resources or increase response times due to adequate staffing levels. Accordingly, the proposed Project would not substantially increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects. Therefore, impacts to law enforcement services would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-2: Development of the proposed Project would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

New wharf expansion, backlands construction, construction or modification of terminal structures would require connections with the existing fire flow infrastructure in the Project area. Construction activities, therefore, have the potential to temporarily interrupt fire flow water supplies when utility connections are being made in the Project area. However, utility connections are a frequent occurrence during large-scale terminal developments, and are generally conducted with minimal, if any, disruptions in service.

All utility work would be conducted in accordance with the proposed Project Public Services Relocation Plan, which is included as part of the proposed Project. Consistent with Public Services Relocation Plan provisions, removal and relocation of fire hydrants, water supply lines, and distribution mains would be subject to review and approval by LAFD and/or jurisdictional agencies to ensure adequate fire flow water supplies within the proposed Project vicinity. Accordingly, the LAFD would be notified in advance and afforded the opportunity to review and comment on proposed Project features affecting fire suppression infrastructure. Furthermore, the proposed Project would be designed and constructed to meet all applicable state and local codes and ordinances to ensure adequate fire protection. During the design review process, the LAFD would conduct a fire-life-safety review to assess the required fire flow for the proposed Project; however, current fire flow is considered adequate in the proposed Project area and nearby Port facilities and would continue to be adequate during Project construction and operation.

During proposed Project construction, utility connections within the public right-of-way could result in the minor temporary interruption and/or delays in the event of a land-based fire response. However, prior to construction activities the contractor would be required to coordinate with LAFD to establish alternative fire and emergency response access routes, pursuant to the Public Services Relocation Plan.

LAFD emergency response times during Project operations would be affected only by changes to land use and accessibility to the site (USACE and POLA, 2007). Land use designations would remain the same under the proposed Project. In addition, fire lanes or hydrants would only be relocated or expanded. Furthermore, Fire Station 40 (land based) is located less than 0.15 mile north of the Project site on Ferry Street, and Fire Boats 110, 111, and 112 are located between 1.5 and 2.5 miles west and southwest of the Project site. All of these facilities could respond to dispatches from the Project site quickly.

For the reasons described above, operation of the proposed Project would not result in an increase in average emergency response times, and the LAFD would be able to accommodate proposed Project related fire protection demands (USACE and POLA, 2007).

CEQA Impact Determination

For utility connections in the public right-of-way, the construction contractors would be required to, through standard contract specifications or pursuant to the Public Services Relocation Plan, coordinate with LAFD prior to commencement of construction activities to identify alternative response routes, which would ensure continuous and adequate fire and emergency vehicular access to the proposed Project area and keep impacts to a less than significant level. Any modifications to existing firefighting infrastructure (i.e., fire hydrants, water supply trunk lines, and distribution mains) in the proposed Project area would be conducted in accordance with the Public Services Relocation Plan described in Section 2.5.2.5 (Chapter 2, Project Description), and subject to review and approval by the LAFD and LADWP. Therefore, the proposed Project would not affect fire flow or impede emergency response services in the area. Because fire protection features, such as those identified above, would be incorporated into the design process of the proposed Project, operations at Berths 302-306 would not substantially increase the demand for fire protection services. Furthermore, the LAFD would be notified in advance of construction activities, and as a standard practice, would review the terminal plans to ensure adequate fire prevention measures are incorporated into the Project, including emergency access provisions.

Project operations would not affect emergency response times because the site would have the same land use and similar layout and same distances to fire stations as the existing terminal. In addition, no existing fire lanes or hydrants would be relocated without LAFD approval, and site access would be reviewed by the LAFD (USACE and POLA, 2007). Because the proposed Project would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The proposed Project includes in-water, over-water, and upland improvements that are not included in the NEPA baseline (see Section 2.6.2 in Chapter 2, Project Description). As discussed above, implementation of the proposed Project would require new the installation of new utility connections, and may require the relocation of utilities. However, all utility work would be conducted in accordance with the proposed Project Public Services Relocation Plan, as discussed above.

Project operations would not affect emergency response times because the site would have the same land use and a similar layout as the existing terminal. Further, the existing fire lanes and hydrants would not be relocated without LAFD approval, and changes to the terminal's access would be reviewed by the LAFD (USACE and POLA, 2007). Because the proposed Project would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or

relocation of an existing facility to maintain service, less than significant impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-3: The proposed Project would not result in a substantial increase in utility demands; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.

Construction of new cranes, wharf extension, structure modifications, and backland improvements would require additional infrastructure such as lighting and utility facilities/infrastructure to ensure optimum cargo movement. New on-site utility lines (water, wastewater, and storm drains) would be constructed to serve increasing terminal operations; the relocation and/or extension of some existing utility lines would also occur. This new infrastructure would tie into the existing utility lines that currently serve the Project site. Provisions for water and wastewater service to the proposed Project site would require some minor off-site construction to connect new on-site utilities with existing infrastructure. All infrastructure improvements and connections that occur within City streets would comply with the City's municipal code, and would be performed under permit by the City Bureau of Engineering and/or LADWP. Additionally, the LAHD would prepare a Public Services Relocation Plan as part of the proposed Project (see Section 2.5.2.5 in Chapter 2) to address the public utilities that would be affected by proposed Project construction, which would be reviewed by the service providers and City departments prior to implementation.

Although the site currently has water supply infrastructure, on-site water pipelines would be constructed within the Project site to supply water at needed points within the proposed expansion areas. The building development under the proposed Project (i.e., expansion of the Power Shop Building and Marine Office Facilities) would not include major water-consuming industrial or commercial processes; therefore, terminal construction and operation would not require substantial quantities of water. The on-site water distribution system would connect with the existing trunk lines and distribution mains in the proposed Project area, consistent with the Public Services Relocation Plan. Existing fire hydrants in the proposed Project area have sufficient capacity to accommodate increased water demands described above, although additional fire hydrants would be incorporated the terminal design. In addition, water mains servicing the Project area have sufficient capacity to accommodate water demands required to support proposed Project operations.

The proposed Project would result in minimal increases in wastewater demands. Increased staff levels associated with proposed construction and operation would generate minor increases in wastewater flows. Wastewater generated from the proposed Project site during construction and operation would be conveyed to, and treated by, the TIWRP.

The TIWRP has a capacity of 30 mgd and currently operates at 58 percent capacity. The City projects that by 2020, wastewater flows in the TIWRP service area will grow from the current 17.5 mgd to 19.9 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation and LADWP, 2006). Therefore, approximately 10 mgd in daily capacity at TIWRP would remain unused and available for future years. As described above, at current growth rates of wastewater flow levels, TIWRP will have adequate capacity to serve Project flows in 2027. The negligible increase in wastewater flows from the proposed Project construction and operation would not exceed the daily capacity of the TIWRP or conveyance system (e.g., sewer trunk lines in the proposed Project area or other off-site infrastructure or facilities) over the long term.

The proposed Project would result in increased runoff associated with the development of 56 acres of newly paved area. Under the proposed Project, the total terminal size would be 347 acres (compared to the existing 291 acres). The proposed Project would be designed to accommodate increases in runoff rates without substantially affecting off-site storm drain systems. The Project site is adjacent to the Harbor and in close proximity to the TIWRP. Project site runoff would be conveyed to the Harbor (discharges in the vicinity of the wharf) after pre-treatment through a SUSMP device. Furthermore, because the proposed Project is located adjacent to the Harbor and TIWRP, construction and/or expansion of off-site stormwater drainage or wastewater conveyance facilities would not be required.

As previously stated, LAHD would prepare a Public Services Relocation Plan as part of the proposed Project to address the public utilities that would be affected by proposed Project construction, which would be reviewed by the service providers and City departments prior to implementation. Because new utility lines would be located within existing City streets or existing pipeline corridor easements, utility connections in roadways would comply with City municipal codes and would be performed under permit by the City Bureau of Engineering and/or LADWP. Modifications of or connections with utility lines would not result in significant environmental impacts. Therefore, impacts to public utility locations or alignments would be less than significant.

CEQA Impact Determination

Construction and/or expansion of on-site water or wastewater lines would be required to support new terminal development over the CEQA baseline conditions; however, the increases in water demand and wastewater generation from the Project would be considered negligible, as shown in Tables 3.13-2 and 3.13-3. The water mains serving the Project area and LADWP supplies have sufficient capacity to accommodate water required to support the proposed Project operations.

The proposed Project would result in water demand of approximately 66,474 gpd by 2027, or 74.5 afy. This would represent 0.0105 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies. The CEQA baseline demands of 36,254 gpd, or 40.61 afy, represent 0.00653 percent of the baseline LADWP water demand (621,458 acre-feet). The proposed Project would result in an increased water demand over the CEQA baseline level of 33.85 afy.[6] However, this increase in demand would not negatively impact future supply. The WSA completed for the proposed Project, and approved by the LADWP's Board of Commissioners on

[6] The total LADWP water demand for the proposed Project does not account for water efficiency requirement ordinance savings that would be applied by LADWP under water conservation commitments

April 5, 2011, confirmed that adequate supplies exist to serve the proposed Project, and that the associated increase in demand would not significantly or negatively impact the LADWP's future supply (Appendix J). Further, the proposed Project would include water conservation measures (i.e., low-flow toilets) that are expected to reduce future demand on water resources.

The proposed Project would generate approximately 0.066 mgd of wastewater by year 2027. This represents 0.38 percent of existing treatment flow and 0.22 percent of daily capacity at TIWRP. Although the amount of wastewater generated by the proposed Project would exceed that of the CEQA baseline (0.12 percent of TIWRP capacity), it would not significantly affect existing or future capacity at TIWRP due to the substantial remaining capacity beyond 2020, which is estimated to adequately handle 2027 wastewater flow demands. The proposed Project area is served by existing wastewater conveyance systems that would not be significantly affected by wastewater generated during construction. Therefore, the proposed Project would result in less than significant impacts to utility systems under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The proposed Project would include in-water and over-water construction activities and limited upland development that would not be part of the NEPA baseline (see Section 2.6.2 in Chapter 2). Construction and/or expansion of on-site water or wastewater lines would be required to support new terminal development over the NEPA baseline conditions; however, the increases in water demand and wastewater generation would be considered negligible, as shown in Tables 3.13-2 and 3.13-3. The water mains serving the Project area and LADWP supplies have sufficient capacity to accommodate water required to support the proposed Project operations.

The baseline demands of 42,278 gpd, or 47.36 afy, represent 0.00666 percent of the baseline LADWP water demand (710,800 acre-feet). The proposed Project would result in water demand of approximately 66,474 gpd by 2027, or 74.5 afy. This would represent 0.01048 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies. The WSA for the proposed Project, and approved by the LADWP's Board of Commissioners on April 5, 2011, confirmed that adequate supplies exist to serve the proposed Project, and that the associated increase in demand would not significantly or negatively impact the LADWP's future supply. Further, the proposed Project would include water conservation measures (i.e., low-flow toilets) that are expected to reduce future demand on water resources.

The proposed Project would generate approximately 0.066 mgd of wastewater by year 2027. This represents 0.38 percent of existing treatment flow and 0.22 percent of daily capacity at TIWRP. Although the amount of wastewater generated by the proposed Project would exceed that of the CEQA baseline (0.12 percent of TIWRP capacity), it would not significantly affect existing or future capacity at TIWRP due to the substantial remaining capacity beyond 2020, which is estimated to adequately handle 2027

wastewater flow demands. The proposed Project area is served by existing wastewater conveyance systems that would not be significantly affected by wastewater generated during construction.

Because public utilities would not be affected by dredging, filling, or wharf expansion, adverse impacts associated with construction and/or expansion of water, wastewater, and storm drain infrastructure would not occur. Therefore, the proposed Project would result in less than significant impacts to utility systems under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-4: The proposed Project would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.

As stated under Impact PS-3, new on-site utility lines/infrastructure (water, wastewater, and storm drains) would be constructed to serve expanded terminal area and increased container terminal operations, and would be designed to accommodate water and wastewater demands. Because the proposed Project would be completed prior to 2015, the Port would not be required to file an SAR with LADWP, as described in Section 3.13.2.2.1, to assess whether the current infrastructure would be able to accommodate the increased water demands. However, the proposed Project would include additional on-site water lines to provide adequate fire flow to the newly developed backland area, and other areas subject to improvement. Furthermore, the Project design plan would be reviewed by LAFD as part of the standard permitting process to ensure that adequate fire flow will be included in the proposed Project.

Based on the water demand factors provided (see Section 3.13.2.2.1), operation of the proposed Project would result in a water demand of approximately 66,474 gpd by 2027, or 74.5 afy. Water demand would temporarily increase slightly during the construction period by up to approximately 2,400 gpd, or 2.7 afy. The UWMP estimates that LADWP demand in 2035 will be 710,800 acre-feet, for which LADWP forecasts sufficient water supplies (LADWP, 2010a). At the full-capacity level of operation, the proposed Project water demand would represent 0.01048 percent of total projected water demand. The UWMP is required to be updated every 5 years, thus future water demand and supply planning for the City, including the Port or Los Angeles, would occur at regular intervals.

Based on the wastewater generation factor of 24 gallons per capita per day (gpcd), operation of the proposed Project would result in 0.066 mgd of wastewater, which represents 0.38 percent of the existing flow of 17.5 mgd and 0.22 percent of the TIWRP capacity of 30 mgd. Construction activities would temporarily increase wastewater flow by approximately 0.025 mgd, which represents 0.015 percent of the existing flow and 0.08 percent of overall plant capacity. The City projects that by 2020, wastewater flows in the TIWRP service area will grow from the current 17.5 mgd (about 58 percent of TIWRP capacity) to 19.9 mgd; therefore, approximately 10 mgd in daily capacity at TIWRP would remain unused and available for future years (beyond 2020). The amount of wastewater generated by the Project would not significantly affect existing or future

capacity at TIWRP considering the limited construction and operational flows and the substantial remaining capacity at the plant beyond 2020. As described above, at projected growth rates of wastewater flow, TIWRP will have adequate capacity to serve Project flows in 2027. The minor increase in wastewater flow generated by the proposed Project would not exceed the capacity of the sewer trunk lines in the proposed Project area. In addition, improvements to the Marine Office Facilities would be designed to meet, at minimum, the silver certification of the Leadership in Energy and Environmental Design (LEED). LEED design includes features such as reduced-energy lighting to reduce energy consumption, and low-flow toilets to reduce water use and wastewater generation. Water conservation devices and systems would be incorporated into the proposed Project designs such as those required by the State of California Department of Water Resources and the water efficiency requirements per the LAMC, including pursuing reclaimed/recycled water from the TIWRP for use in terminal operations and for seawater for fire suppression, if determined feasible and appropriate.[7]

Construction and demolition activities could generate debris that would require disposal in a landfill. Construction debris is one of the greatest individual contributors to solid waste capacity, making up approximately 22 percent of the State of California's waste disposal demand (CIWMB/CalRecycle, 2004). Proposed construction activities would generate some construction and demolition materials including asphalt, concrete, building materials, and solids; however, these materials would be generated temporarily. Due to lower disposal costs or tipping fees, asphalt and concrete are typically recycled for aggregate base or disposed of at inert landfills instead of sanitary landfills. In addition, approximately 20,000 cy of dredged material would be generated during dredging of the Pier 300 Channel (at Berth 306). The dredged material may be beneficially reused within the Port Complex, (such as at the approved CDF at Berths 243-245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2, which is closer to the Project site than LA3), or a combination of these disposal methods.

Project operations would result in a negligible increase in the generation of solid waste. Container terminal operations would primarily consist of container loading and storage activities; minimal administrative facilities would be required to support proposed operations. Additionally, operation of the proposed Project would be required to comply with applicable waste diversion requirements, as well as all existing hazardous waste laws and regulations, including the federal Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and CCR Title 22 and Title 26. Based on the solid waste generation factor of 0.372 ton per year per acre of land (POLA, 2008), the proposed Project would generate approximately 129 tons of solid waste per year (0.35 ton per day) that would require transportation to Chiquita Canyon Landfill, Sunshine Canyon Landfill, or other disposal facility (refer to Table 3.13-4). This amount represents 0.0059 percent of the permitted daily capacity of 6,000 tons at Chiquita Canyon Landfill, 0.0064 percent of the permitted daily capacity of 5,500 at the Sunshine Canyon Landfill, or 0.0029 percent of the available permitted daily capacity at the El Sobrante Landfill. The landfills would be able to accommodate the negligible increase in solid waste generated by Project operations through their closure dates, estimated to be approximately 2019 for Chiquita Canyon, 2037 for Sunshine Canyon, and 2045 for and El Sobrante. Solid waste

[7] City of Los Angeles Municipal Code, Chapter VII, Article V, Section 125 (*Water Efficiency Requirements for New Development and Renovation of Existing Buildings*). Added by Ordinance No. 180,822, effective September 04, 2009. Available at http://clkrep.lacity.org/onlinedocs/2009/09-0510_ord_180822.pdf.

generated from Project operations after closure of the Chiquita Canyon Landfill (2019) is not expected to result in significant impacts because adequate capacity would exist through 2045 with the Sunshine Canyon Landfill (2037) and the El Sobrante Landfill (2045). It should be noted that the City is pursuing Zero-Waste solutions in the City, and if achieved, substantial reductions in solid waste could occur over an extended time period. Additionally, mitigation measure **MM AQ-19** requires that a minimum of 40 percent of all waste generated in all terminal buildings is recycled by 2014 and 60 percent of all waste generated in all terminal buildings is recycled by 2016.

Implementation of the proposed Project has the potential to encounter unidentified contaminated soils at the Project site, which could require the treatment, removal, and/or disposal of the material. However, substantial amounts of hazardous materials are not expected to be encountered at the Project site due to the limited amount of demolition and excavation anticipated. If contaminated soils are encountered, the LAHD will consider the type and extent of contamination and explore the variety of options available for remediation, which could include in situ, on-site, and off-site treatment (incineration, soil vapor extraction [SVE], bioremediation) and disposal options. In the event that the material would still require disposal after treatment, Kettleman Hills Landfill, Buttonwillow, or another Class I landfill in the United States would be utilized, based on facility and hazardous material requirements. Asbestos-containing material is not expected to be encountered, as the existing terminal buildings were constructed after asbestos containing materials were no longer used in the building trade.

Certain forms of on-site or off-site treatment could result in soils that could be reused on-site or used as cover in a nonhazardous materials landfill. It would be speculative to estimate the likelihood, amount, or type of contamination that could be encountered during excavation and what would be the most likely treatment option selected by the lead agency. These details cannot be known until completion of the relevant hazardous materials investigations. However, because there are numerous treatment and disposal options, many of which do not involve Class I landfill disposal, because the Kettleman Hills facility has available capacity (approximately 1.5 million cy), and numerous hazardous waste disposal facilities are available for off-site disposal in California and other states, significant impacts related to exceeding the capacity of a Class I landfill are not anticipated.

CEQA Impact Determination

As discussed under Impact PS-3 and above, the proposed Project would result in less than significant demands on water supplies and wastewater capacity that could be accommodated by LADWP, the existing utility infrastructure, and TIWRP's existing and future capacity. The 2010 UWMP includes the existing and projected water supply and demand, and demonstrates that overall LADWP demand would be met through 2035, including the demand generated by the proposed Project. Water supply would continue to be met by the LADWP beyond the 2010 UWMP's planning horizon of 2035, through subsequent updates to the UWMP (i.e., every five years). The demand associated with the proposed Project would be treated as existing demand in future UWMP updates and water supply planning.

The proposed Project would represent 0.01048 percent of total projected water demand, which is an increase 0.00395 percent over CEQA baseline conditions, for which LADWP forecasts sufficient water supplied based on the findings of the WSA for the proposed

Project, which was approved by LADWP on April 5, 2011 (Appendix J). Wastewater generated during construction and operation of the proposed Project would constitute 0.38 percent of the TIWRP's daily flow, or 0.22 percent of the total plant capacity, which is an increase of 0.1 percent over the plant capacity CEQA baseline. These increases represent minor or negligible increases in water supply demand and wastewater flows over the CEQA baseline levels. However, as discussed above, these minor increases would be accommodated by the LADWP's supply and demand projections (in the 2010 UWMP and future updates) and the TIWRP's remaining capacity. Therefore, impacts associated with exceeding the capacity of the existing water supply and the TIWRP's treatment capacity would be less than significant under CEQA.

Container terminal operations would consist primarily of container loading and storage activities that would not generate substantial amounts of solid waste requiring disposal in a landfill. The proposed Project would generate 129 tons of solid waste per year, or 21 tons above the CEQA baseline level of 108 tons per year. This would represent an increase in the contribution to the permitted throughput at Chiquita Canyon Landfill from 0.0050 percent under CEQA baseline conditions to 0.0059 percent under proposed Project operations. The contribution to the permitted throughput at the Sunshine Canyon Landfill would increase from 0.0054 percent to 0.0064 percent, and the contribution to the permitted daily capacity at the El Sobrante Landfill would increase from 0.0025 percent (under CEQA baseline conditions) to 0.0029 percent. The landfills would be able to accommodate the negligible increase in solid waste generated by Project operations through their respective closure dates, estimated to be approximately 2019 for Chiquita Canyon, 2037 for Sunshine Canyon, and 2045 for El Sobrante.

A substantial amount of debris during construction is not anticipated to be generated because, with the exception of the Roadability Facility and existing out-gate, demolition or substantial excavation would not be required, and because construction debris is generally reused or recycled where economically feasible. Although hazardous materials could be encountered and require disposal during construction activities, several contaminated soil treatment and disposal options and Class I landfills are available for off-site disposal. Because of this, impacts related to exceeding the capacity of a Class I landfill would be less than significant. Consequently, significant impacts to hazardous materials landfill capacity would not occur. Because adequate landfill capacity would be available through the Project horizon year of 2027, less than significant impact to landfill capacity under CEQA.

Mitigation Measures

Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1** and **SC PS-2** have been added to further reduce the amount of solid waste generated. **SC PS-1** would be implemented to minimize the amount of solid waste requiring transportation to a landfill that would be generated during proposed Project construction. **SC PS-2** is provided not to mitigate an identified environmental impact, but rather to support development of recycled material markets, to the extent feasible.

SC PS-1: **Recycling of Construction Materials.** Demolition and/or excess construction materials shall be separated on-site for reuse/recycling or proper disposal. During grading and construction, separate bins for recycling of construction materials shall be provided on-site.

SC PS-2: **Materials with Recycled Content.** Materials with recycled content shall be used in Project construction where feasible. Chippers on-site during construction shall be used to further reduce excess wood for landscaping cover.

Additionally, Air Quality, Meteorology, and Greenhouse Gases mitigation measure **MM AQ-19** requires that a minimum of 40 percent of all waste generated in all terminal buildings is recycled by 2014 and 60 percent of all waste generated in all terminal buildings is recycled by 2016. This mitigation measure would further reduce solid waste generation.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The proposed Project would include in-water and over-water construction activities and upland development that would not be part of the NEPA baseline (see Section 2.6.2 in Chapter 2). As discussed under Impact PS-3 and above, the proposed Project would result in less than significant demands on water supplies and wastewater capacity that could be accommodated by LADWP, the existing utility infrastructure, and TIWRP's existing and future capacity. The 2010 UWMP includes the existing and projected water supply and demand, and demonstrates that overall LADWP demand would be met through 2035, including the demand generated by the proposed Project. Water supply would continue to be met by the LADWP beyond the 2010 UWMP's planning horizon of 2035, through subsequent updates to the UWMP (i.e., every five years). The demand associated with the proposed Project would be treated as existing demand in future UWMP updates and water supply planning.

The proposed Project would represent 0.01048 percent of total projected water demand, which is an increase 0.00382 percent over NEPA baseline conditions, for which LADWP forecasts sufficient water supplied based on the findings of the WSA for the proposed Project, which was approved by LADWP on April 5, 2011 (Appendix J). Wastewater generated during construction and operation of the proposed Project would constitute 0.38 percent of the TIWRP's daily flow, or 0.22 percent of the total plant capacity, which is an increase of 0.08 percent over the NEPA baseline. These increases represent minor or negligible increases in water supply demand and wastewater flows over the NEPA baseline levels. However, as discussed above, these minor increases would be accommodated by the LADWP's supply and demand projections (in the 2010 UWMP and future updates) and the TIWRP's remaining capacity. Therefore, impacts associated with exceeding the capacity of the existing water supply and the TIWRP's treatment capacity would be less than significant under NEPA.

Construction and operation of the proposed Project would generate 129 tons of solid waste per year, or 21 tons above the baseline level of 108 tons per year. This would represent an increase in the contribution to the permitted throughput at Chiquita Canyon Landfill from 0.0050 percent under NEPA baseline conditions to 0.0059 percent under proposed Project operations; the contribution to the permitted throughput at the Sunshine Canyon Landfill would increase from 0.0054 percent to 0.0064 percent; the contribution to the permitted daily capacity at El Sobrante Landfill would increase from 0.0025 percent (under NEPA baseline conditions) to 0.0029 percent. Solid waste generated from

Project operations after the closure date of the Chiquita Canyon landfill (anticipated to be 2019) would not be expected to result in significant impacts because adequate capacity would exist through 2037 for Sunshine Canyon Landfill and 2045 for the El Sobrante Landfill.

A substantial amount of debris during construction is not anticipated to be generated because, with the exception of the Roadability Facility and existing out-gate, demolition or substantial excavation would not be required, and because construction debris is generally reused or recycled where economically feasible. Although hazardous materials could be encountered and require disposal during construction activities, substantial amounts of hazardous waste are not anticipated due to the limited amount of excavation required for terminal improvements and because several contaminated soil treatment and disposal options and Class I landfills with available capacity are available for off-site disposal. Because of this, impacts related to exceeding the capacity of a Class I landfill would be less than significant. Consequently, significant impacts to hazardous materials landfill capacity would not occur. Because adequate landfill capacity would be available through the Project horizon year of 2027, there would less than significant impacts to landfill capacity under NEPA.

Mitigation Measures

Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1, SC PS-2**, and mitigation measure **MM AQ-19** have been added to further reduce the amount of solid waste generated.

Residual Impacts

Impacts would be less than significant.

Impact PS-5: Implementation of the proposed Project would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support proposed Project activities.

Energy (diesel fuel and electricity) would be used during construction of the proposed Project. Energy expenditures during construction would be short term in duration, occurring periodically during each of the proposed Project construction phases. Construction would not result in substantial waste or inefficient use of energy because construction would be competitively bid, which would facilitate efficiency in all construction stages. Current LAHD bid specifications include provisions to reduce energy consumption, such as staging work during nonpeak hours when appropriate. Additionally, construction of modern buildings and structures incorporates energy-efficient designs that are mandated by current building codes.

Development of the backlands on the 41-acre expansion area would require grading, paving, and striping, as well as installation of on-site distribution infrastructure such as approximately ten new substations, including a LADWP industrial station, a Port main substation and smaller substations to supply power for expanded on-site operations that include wharf cranes, electric RMGs, AMP for Berth 306, LTCs, reefers, and other miscellaneous power needs such as for expanded Power Shop facilities and new lighting. The new substations would be located throughout the site, with the main stations likely located near the existing LADWP and Port stations near the existing Roadability/Genset area. It is foreseeable that a technology change could result in replacement of some of

the traditional backland operations at the APL Terminal through the use of an automated container handling system on the 41-acre backland area adjacent to proposed Berth 306. If installed, such a system would involve the use of semi-automatic dual hoist electric shore side gantry cranes, Automated Guided Vehicles (AGVs), electric automated stacking cranes (ASCs), and semi-automated electric Landside Transfer Cranes (LTCs). Because it is not certain as to whether or when use of an automated system would commence, for the purposes of environmental review, the EIS/EIR assumes that either (1) the terminal would continue to operate using traditional operation throughout the lease term; or (2) the operation of the 41-acre backland would transition from a traditional operation (i.e., transport of containers by mostly diesel-powered equipment) to an automated operation with mostly electric equipment during the lease term. The new electricity distribution facilities would be designed to support an automated container handling system on the 41-acre backland area adjacent to proposed Berth 306.

Electricity demands at the proposed Project site would be related to industrial uses including crane operations, facility and backlands operations (refrigeration units), site and security lighting, general site maintenance, and AMP. Electrical demand of the fully conventional operations is estimated to be 14,604,704 kilowatt hours (kWh) for 1,832,000 annual vessel lifts. Electrical demand of the fully automated 41-acre backland and the remaining conventional terminal is estimated to be 22,766,624 kWH for 1,832,000 annual vessel lifts.[8] With full automation assumed for purposes of this analysis to occur by 2027, Project electricity demand is expected to peak by 2027. However, the increase in electricity demands associated with the terminal operations would not exceed existing supplies and/or result in the need for major new facilities. Port staff has coordinated with LADWP staff to confirm that LADWP has adequate existing and future power capacity for the proposed Project (Razkalla, pers. comm., 2011). Further, the proposed Project would incorporate all applicable energy conservation measures in compliance with California's Building Code CCR Title 24 that requires building energy-efficient standards for new construction (including requirements for new buildings, additions, alterations, and, in nonresidential buildings, repairs). Incorporation of these design standards, as required by state law, would reduce wasteful energy consumption.

In addition to energy-efficient designs that are mandated by current building codes, on-site structures would be sited and constructed to maximize natural heating and cooling. All light fixtures used at the Project site would meet the latest efficiency standards and would not waste input energy by producing unusable light in the form of glare. In addition to complying with California Code, the proposed Project buildings would be constructed to meet, at minimum, LEED silver certification, which would further reduce energy demands and use. AMP is estimated to require approximately 18 million kilowatt hours (kWh) annually by 2027. The average annual electrical consumption per ship for AMP would be 46,000 kWh. This average per ship AMP electricity use is based on implementation of AMP in 80 percent of the APL shipping fleet, or 95 percent after mitigation. The AMP would be installed to provide shoreside electrical power to ships hoteling at Berth 306. The AMP system would provide power to the hoteled ship in lieu of electricity generated by its auxiliary diesel motors. AMP is considered more efficient and less polluting because the electricity would be generated in power plants that are

[8] Full automation of the backlands represents the largest potential demand for electricity (i.e., a worst-case scenario). Should partial automation occur, the electricity demand is expected to be less. How much less would depend on the degree of automation that is implemented and on the mix of electric versus diesel/electric equipment, which cannot be determined at this time.

cleaner burning than the ship diesel auxiliary generators, which would normally power the ship while berthed in the absence of AMP.

As described in Section 3.13.3.2.6, LADWP is charged with maintaining sufficient capability to provide its customers with a reliable supply of power, and will continue to do so with proper planning and development of facilities in accordance with the City Charter using such mechanisms as the Power IRP. Additionally, LADWP has communicated that it would be able to provide power to the new industrial stations on-site because LADWP has more than enough electrical power to supply the proposed container terminal (Razkalla, pers. comm., 2011). Based on the LADWP Power IRP, electricity resources and reserves at LADWP will adequately provide electricity for all of its customers, including the Project through the current Power IRP planning horizon of 2040 (LADWP, 2010b). Further, the LADWP is required by the Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of the proposed Project, by itself, would not result in the need to construct a new off-site power station or facility. For a discussion of cumulative impacts related to electricity demand, see Chapter 4 (Cumulative Analysis).

The proposed Project would generate minimal demands for natural gas associated with space and water heating. Because administrative offices represent a minor component of container terminal operations, the increased demand for natural gas would be accommodated by the Gas Company existing supplies via the existing infrastructure (variable 1.5- to 3-inch pipeline) located adjacent to and within the proposed Project site.

CEQA Impact Determination

Energy (diesel fuel and electricity) would be required to support proposed construction activities. The proposed Project would incorporate all applicable energy conservation measures in compliance with California's Building Code CCR Title 24 that requires building energy-efficient standards for new construction (including requirements for new buildings, additions, alterations, and, in nonresidential buildings, repairs). Incorporation of these design standards, as required by state law, would reduce wasteful energy consumption. Energy demands during construction activities would be short term and temporary and are not anticipated to result in the substantial waste or inefficient use of energy because the competitive bid process would select for cost-effective strategies that support energy efficiency and conservation throughout all construction stages, as described above.

Project-related natural gas demands (space and water heating) would exceed the usage under the CEQA baseline but would not be substantial because terminal buildings represent a minor part of proposed terminal operations. The proposed improvements would not require additional gas line infrastructure be constructed.

Project operations would generate demands for electricity (in excess of demand under the CEQA baseline) associated with crane operations, facility and backlands operations, site and security lighting, new on-site buildings, general site maintenance, and AMP at Berth 306. Electrical power for Berth 302-305 conventional terminal combined with the automated backlands of Berth 306 would be approximately 8,161,920 kWh more per year (a 56 percent increase) compared to the electricity usage for the conventional terminal of Berths 302-306. However, the electric automated operations could reduce diesel power

by up to approximately 1,131,034 kWh per year. With the increase in electrical energy and decline in diesel power usage that would occur with automated backlands at Berth 306 combined with conventional operations at Berth 302-305, the energy demand would be approximately 15 percent higher than would occur under conventional operations for the entire terminal.

Nonetheless, as discussed above, the LADWP has ample generation capacity to meet the needs of its customers, including the proposed Project, and will continue to do so with proper planning and development of facilities in accordance with the City Charter. Because LADWP is required by the Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of the proposed Project by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4).

In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. The LEED buildings include energy conservation measures such as double-paned windows and dimming fluorescent lights. Even though impacts associated with energy usage are considered less than significant, implementation of mitigation measure **MM AQ-17 and MM AQ-18** would further reduce energy demands. Electric infrastructure would be adequate to support either traditional or electric-powered automated operations on the 41-acre backlands and adequate energy supplies would be available; thus, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required. However, Air Quality, Meteorology, and Greenhouse Gases mitigation measure **MM AQ-17** would also require installation of fluorescent light bulbs or technology with similar energy-saving capabilities, in all interior buildings, and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. These mitigation measures would further energy demand associated with the proposed Project.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The proposed Project would include in-water and over-water construction activities and upland development that would not be part of the NEPA baseline (see Section 2.6.2 in Chapter 2). The proposed Project would generate minimal demands for natural gas associated with space and water heating. Because administrative offices represent a minor component of container terminal operations, the increased demand for natural gas would be accommodated by the Gas Company existing supplies via the existing infrastructure (variable 1.5- to 3-inch pipeline) located adjacent to and within the proposed Project site. Thus, proposed Project-related natural gas demands would exceed the usage under the NEPA baseline but would not be substantial because terminal buildings represent a minor part of proposed terminal operations, and no additional gas infrastructure would be constructed.

The proposed Project would include in-water, over-water, and upland construction activities that would not be part of the NEPA baseline (see Section 2.6.2). Although dredging and associated reuse or disposal of that material, wharf expansion, and upland development would require additional energy usage during construction, these demands would be short-term and temporary and are not anticipated to result in the substantial waste or inefficient use of energy because the competitive bid process would select for energy efficiency in all construction stages.

The proposed Project would incorporate all applicable energy conservation measures in compliance with California Building Code CCR Title 24 that requires building energy-efficient standards for new construction (including requirements for new buildings, additions, alterations, and, in nonresidential buildings, repairs). Incorporation of these design standards, as required by state law, would reduce wasteful energy consumption.

Project operations would generate demands for electricity (in excess of demand under the NEPA baseline) associated with expanded crane operations, increased facility and backlands operations, additional site and security lighting, new on-site buildings, general site maintenance, and AMP. Transition from a traditional operation to an automated operation is assumed by 2027, in which the equipment used would be electric, with the exception of the diesel/electric AGVs. Electricity usage would increase 56 percent for the fully automated system in combination with the remaining conventional terminal. The LADWP has ample generation capacity available to meet increase in electricity needs. Because LADWP is required by the City Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of the proposed Project by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4). In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. The LEED buildings include energy conservation measures such as double-paned windows and dimming fluorescent lights. Mitigation measure **MM AQ-17** would also require installation of fluorescent light bulbs or technology with similar energy-saving capabilities in all interior buildings, and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. Therefore, impacts on energy supply facilities would be less than significant under NEPA.

Mitigation Measures

No mitigation is required. Although significant impacts to energy demand would not occur, mitigation measures **MM AQ-17 and MM AQ-18** have been added to further reduce energy demand.

Residual Impacts

Impacts would be less than significant.

3.13.4.3.2 Alternatives

3.13.4.3.2.1 Alternative 1 – No Project

Under Alternative 1, no further Port action or federal action would occur. The Port would not construct and develop additional backlands, wharves, or terminal improvements. No new cranes would be added, no gate or backland improvements would occur, and no infrastructure for AMP at Berth 306 or automation in the backland area adjacent to Berth 306 would be provided. This alternative would not include any dredging, new wharf construction, or new cranes. The No Project Alternative would not include development of any additional backlands because the existing terminal is berth-constrained and additional backlands would not improve its efficiency.

Under the No Project Alternative, the existing APL Terminal would continue to operate as an approximately 291-acre container terminal. Based on the throughput projections, terminal operations are expected to grow over time as throughput demands increase. Under Alternative 1, the existing APL Terminal would handle approximately 2.15 million TEUs by 2027, which would result in 286 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 7,273 peak daily one-way truck trips (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Under Alternative 1, cargo ships that currently berth and load/unload at the Berths 302-305 terminal would continue to do so.

The No Project Alternative would not preclude future improvements to the proposed Project site. However, any future changes in use or new improvements with the potential to significantly impact the environment would need to be analyzed in a separate environmental document.

Impact PS-1: Alternative 1 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.

CEQA Impact Determination

Alternative 1 would not develop or improve the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or increase the number of facilities at the existing APL terminal; therefore, no additional demand on law enforcement personnel or facilities would be created and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Impact PS-2: Development of Alternative 1 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

CEQA Impact Determination

Alternative 1 would not develop or improve the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or increase the number of facilities at the existing APL terminal; therefore, no additional demand on fire service personnel or facilities would be created and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Impact PS-3: Alternative 1 would not result in substantial new off-site public utility infrastructure, construction, and/or expansion of on-site water, wastewater, or storm drain lines would not be required to support new terminal development.

CEQA Impact Determination

Alternative 1 would not develop or improve the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or increase the number of facilities at the existing APL terminal; but would result in increase throughput compared to the CEQA baseline. However, Alternative 1 would have less water usage and wastewater discharges compared to the proposed Project, and would not significantly affect related infrastructure. Therefore, Alternative 1 would result in less than significant impacts to water, wastewater, or storm drain infrastructure under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Impact PS-4: Alternative 1 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.

CEQA Impact Determination

Alternative 1 would not develop or improve the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or increase the number of facilities at the existing APL Terminal; but would result in increased throughput compared to the CEQA baseline. However, Alternative 1 would have less demand for water and wastewater treatment capacity than the proposed Project, and would not result in construction debris or additional solid waste generation because the terminal size would remain the same. Therefore, Alternative 1 would result in less than significant impacts to water, wastewater, or storm drain infrastructure under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Impact PS-5: Implementation of Alternative 1 would not generate increases in energy demand and construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 1 activities.

CEQA Impact Determination

Alternative 1 would not develop or improve the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or increase the number of facilities at the existing APL Terminal; but would result in increased throughput compared to the CEQA baseline. However, Alternative 1 would have less demand for electricity and gas than the proposed Project, which would not significantly affect energy supplies. Therefore, Alternative 1 would result in less than significant energy impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

3.13.4.3.2.2 Alternative 2 – No Federal Action

The No Federal Action Alternative would be the same as the NEPA baseline and would include only the activities and impacts likely to occur absent further USACE federal approval but could include improvements that require a local action. Under Alternative 2, no federal action would occur; however, minor terminal improvements in the upland area of the existing APL Terminal would be implemented. These minor upland improvements would include conversion of a portion of the dry container storage area to an additional 200 reefers, associated electrical lines, and installation of utility infrastructure at locations in the existing backland areas. Beyond these minor upland improvements, the Port would not construct and develop additional backlands or wharves. No gate or additional backland improvements would occur, and no in-water features such as dredging or a new berth, wharf extension, or over-water features such as new cranes would occur under the No Federal Action Alternative.

Under the No Federal Action Alternative, the existing APL Terminal would continue to operate as an approximately 291-acre container terminal, and up to approximately 2.15 million TEUs could be handled at the terminal by 2027. Based on the throughput projections, the No Federal Action Alternative would result in 286 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 7,273 peak daily truck trips (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Cargo ships that currently berth and load/unload at the Berths 302-305 terminal would continue to do so.

Impact PS-1: Alternative 2 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.

CEQA Impact Determination

Alternative 2 would only include minor improvements to the existing 291-acre APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or expand the existing APL Terminal; therefore, no additional demand on law enforcement personnel or facilities would be created and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact PS-2: Development of Alternative 2 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

CEQA Impact Determination

Alternative 2 would only include minor improvements to the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or expand the existing APL Terminal; therefore, no additional demand on fire service personnel or facilities would be created and no impacts would occur under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact PS-3: Alternative 2 would not result in substantial new off-site public utility infrastructure, construction, and/or expansion of on-site water, wastewater, or storm drain lines would not be required to support new terminal development.

CEQA Impact Determination

Alternative 2 would only include minor improvements to the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or expand the existing APL Terminal; but would result in increase throughput compared to the CEQA baseline. However, Alternative 2 would have less water usage and wastewater discharges compared to the proposed Project, which would not significantly affect related infrastructure. Therefore, Alternative 2

would result in less than significant impacts to water, wastewater, or storm drain infrastructure under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact PS-4: Alternative 2 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.

CEQA Impact Determination

Alternative 2 would only include minor improvements to the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or expand the existing APL Terminal; but would result in increased throughput compared to the CEQA baseline. However, Alternative 2 would have less demand for water and wastewater treatment capacity than the proposed Project, and would not result in construction debris or additional solid waste generation because the terminal size would remain the same. Therefore, Alternative 2 would result in less than significant impacts to water, wastewater, or storm drain infrastructure under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact PS-5: Implementation of Alternative 2 would not generate increases in energy demand and construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 2 activities.

CEQA Impact Determination

Alternative 2 would only include minor improvements to the existing APL Terminal, which would continue to operate as a container terminal until 2027. This alternative would not develop additional areas or expand the existing APL Terminal; but would result in increase throughput compared to the CEQA baseline. However, Alternative 2 would have less demand for electricity and gas than the proposed Project, which would not significantly affect energy supplies. Therefore, Alternative 2 would result in less than significant energy impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

3.13.4.3.2.3 Alternative 3 – Reduced Project: Four New Cranes

Under Alternative 3, four new cranes would be added to the existing wharf along Berths 302-305 and only minor improvements to the existing APL Terminal would be made utility infrastructure and conversion of dry container storage to reefers). No other upland terminal improvements would be constructed. The existing terminal is berth-constrained, and adding the additional four cranes would improve the terminal's efficiency.

The total acreage of backlands under Alternative 3 would remain at approximately 291 acres, which would be less than the proposed Project. This alternative would not include

the extension of the existing wharf, construction of a new berth, dredging, or the relocation and improvement of various gates and entrance lanes.

Based on the throughput projections, TEU throughput under Alternative 3 would be less than the proposed Project, with an expected throughput of approximately 2.58 million TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 8,725 peak daily truck trips (2,306,460 annual), and up to 2,544 annual one-way rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

Impact PS-1: Alternative 3 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.

Alternative 3 would include four new A-frame cranes along Berths 302-305 and minor upland terminal improvements. These activities would not increase the terminal size, and would therefore not result in substantive additional demands on existing law enforcement personnel or facilities currently serving the Project site.

CEQA Impact Determination

The only difference between Alternative 3 and the CEQA baseline is the addition of the four new A-frame cranes, which would not increase the overall area currently serviced by law enforcement agencies, and minor upland improvements (i.e., utility infrastructure and conversion of a dry storage area to a 200-unit refrigerated container storage area). Demand on law enforcement personnel or facilities is determined by service area size (0.72 officers per square mile). Potential impacts would not occur because there would be no substantial change in terminal conditions between Alternative 3 and the CEQA baseline that could increase the demand for additional law enforcement services. Alternative 3 would therefore result in less than significant impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

No permanent development would occur within the in-water terminal area (i.e., no pile installation or wharf expansion). The only difference between Alternative 3 and the NEPA baseline is the addition of the four new A-frame cranes, which would not increase the overall area currently serviced by law enforcement agencies. Demand on law enforcement personnel or facilities is determined by service area size (0.72 officers per square mile). Potential impacts would not occur because there would be no substantial change in terminal conditions between Alternative 3 and the NEPA baseline that could increase the demand for additional law enforcement services. Therefore, no impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact PS-2: Development of Alternative 3 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

Alternative 3 would include four new A-frame cranes along Berths 302-305 and minor upland terminal improvements (i.e., utility infrastructure and conversion of a dry storage area to a 200-unit refrigerated container storage area).

CEQA Impact Determination

Alternative 3 would result in greater throughput than the CEQA baseline; however, the demand for fire protection services would be less than for the proposed Project, which would not result in significant impacts to fire protection services. Therefore, Alternative 3 would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, and impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 3 would have the same terminal size and operational throughput as the NEPA baseline. Potential impacts under NEPA would not occur because there would be no substantial change in environmental conditions between Alternative 3 and the NEPA baseline that could increase the demand for additional fire protective services. Therefore, no impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact PS-3: Alternative 3 would not result in substantial new off-site public utility infrastructure; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.

Alternative 3 would include four new A-frame cranes along Berths 302-305 and minor upland terminal improvements (i.e., utility infrastructure and conversion of a dry storage area to a 200-unit refrigerated container storage area), and would continue operating within the existing 291 acres. Alternative 3 would result in water demand of approximately 49,646 gpd by 2027, or 55.6 afy. This would represent 0.00782 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies. As described under the proposed Project, based on the findings of the WSA for the proposed Project, which was approved by LADWP on April 5, 2011, adequate supplies exist to serve this alternative, and that the associated increase in demand would not significantly or negatively impact the LADWP's future supply (Appendix J).

Alternative 3 would result in minimal increases in wastewater demands, associated with increased staff levels, as indicated in Table 3.13-3. Wastewater generated from the Project site during construction and operation would be conveyed to, and treated at the TIWRP. As discussed under the proposed Project, the TIWRP would have adequate capacity to meet demand generated by this alternative, which is less than the demand under the proposed Project.

CEQA Impact Determination

As shown in Table 3.13-2, Alternative 3 would result in minor increases in water supply/demand that would represent 0.00782 percent of anticipated LADWP water demand, which is greater than CEQA baseline conditions (0.00653 percent of LADWP water demand). Because the UWMP addresses water supply for the City and because the terminal site and the Port of Los Angeles are a part of the City, the UWMP accounts for water usage by Alternative 3. In addition, the UWMP is required to be updated every 5 years, thus the water demand and supply planning would be continued. Because of this, the negligible incremental difference in water demand would not significantly affect water supplies or water-distribution infrastructure. The water mains serving the Project area have sufficient capacity to accommodate water demands required to support terminal operations under this alternative.

The baseline CEQA wastewater flow of 0.036 mgd represents 0.21 percent of the existing treatment flow and 0.12 percent of the TIWRP plant capacity. Alternative 3 would generate approximately 0.050 mgd of wastewater by year 2027, which represents 0.28 percent of existing treatment flow and 0.17 percent of daily capacity at TIWRP.

Alternative 3 would result in increased throughput compared to the CEQA baseline by 2027. Alternative 3 would have less water usage and wastewater discharges compared to the proposed Project, which would not significantly affect related infrastructure. Refer to Tables 3.13-2 and 3.13-3. Therefore, Alternative 3 would result in less than significant impacts to water, wastewater, or storm drain infrastructure.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 3 would have some additional water demand and wastewater flows as compared to the NEPA baseline. Potential impacts under NEPA would be less than significant because water demand is estimated at 0.00782 percent of LADWP demand as compared to the NPEA baseline of 0.00666 percent of LADWP demand. Wastewater flows are estimated to be 49,646 gpd compared to the NEPA baseline of 42,278 gpd. Therefore, there would be no substantial changes in the environmental conditions between Alternative 3 and the NEPA baseline that could require the expansion of water, wastewater, or storm drain infrastructure. Refer to Tables 3.13-2 and 3.13-3. Therefore, less than significant impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-4: Alternative 3 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.

Alternative 3 would include four new A-frame cranes along Berths 302-305 and minor upland terminal improvements (i.e., utility infrastructure and conversion of a dry storage area to a 200-unit refrigerated container storage area).

CEQA Impact Determination

Alternative 3 would result in increased throughput compared to the CEQA baseline. However, Alternative 3 would not result in construction debris or additional solid waste generation because the terminal size would remain the same. Refer to Table 3.13-4. Therefore, Alternative 3 would result in less than significant impacts to water, wastewater, or storm drain infrastructure under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 3 would have the same terminal size and operational throughput as the NEPA baseline. Potential impacts under NEPA would not occur because there would be no substantial changes in the environmental conditions between Alternative 3 and the NEPA baseline that could require disposal of solid waste, or treatment of wastewater. Refer to Table 3.13-4. Therefore, no impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact PS-5: Implementation of Alternative 3 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 3 activities.

Alternative 3 would include four new A-frame cranes along Berths 302-305 and minor upland terminal improvements (i.e., utility infrastructure and conversion of a dry storage area to a 200-unit refrigerated container storage area).

CEQA Impact Determination

Alternative 3 would result in increased throughput compared to the CEQA baseline. However, Alternative 3 would have less demand for electricity and gas than the proposed Project, which would not significantly affect energy supplies. Therefore, Alternative 3 would result in less than significant energy impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 3 would have the same terminal size but slightly greater operational throughput than the NEPA baseline. However, there would be no substantial changes in the environmental conditions under Alternative 3 over the NEPA baseline that could generate significant demand for energy supplies or infrastructure. Therefore, this alternative would result in less than significant impacts under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.13.4.3.2.4 Alternative 4 – Reduced Project: No New Wharf

Under Alternative 4, six cranes would be added to the existing terminal wharf at Berths 302-305, and the 41-acre fill area adjacent to the APL Terminal would be developed as container yard backlands. EMS would relinquish the 30 acres of backlands under space assignment. EMS would not add the nine acres of land behind Berth 301 or the two acres at the main gate to its permit. Because no new wharf would be constructed at Berth 306, the 41-acre backland would be operated using traditional methods and would not be expected to transition to use of automated equipment. As the existing wharf would not be extended to create Berth 306, no dredging would occur.

Under Alternative 4, the total terminal acreage would be 302 acres, which is less than the proposed Project. Based on the throughput projections, TEU throughput would be less than the proposed Project, with an expected throughput of approximately 2.78 million TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In addition, Alternative 4 would result in up to 9,401 peak daily truck trips (2,485,050 annual), and up to 2,563 annual one-way rail trip movements. Configuration of all other landside terminal components (i.e., Main Gate improvements) would be identical to the proposed Project.

Impact PS-1: Alternative 4 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.

Alternative 4 would add six new cranes to the existing wharf for a total of 18 cranes, develop the existing 41 acres of fill as backlands, and make other landside terminal improvements identical to the proposed Project. The total developed area under Alternative 4 would be 302 acres.

As previously described in Section 3.13.2.1.2, existing response times provided by the USCG, LAPD, and Port Police are considered adequate. During construction of Alternative 4, utility connections within the public rights-of-way could result in the minor temporary interruption and/or delays in law enforcement response. However, construction contractors would be required by the contract specification or pursuant to the Public Services Relocation Plan to coordinate with LAPD and Port Police during construction of all utility construction in roadways to establish alternative response routes, ensuring continuous law enforcement access to surrounding areas.

CEQA Impact Determination

As shown in Table 3.13-1, Alternative 4 would require 0.340 officers, or 0.012 additional officers than the 0.328 officers required by the 291 acres under CEQA baseline conditions. The terminal under Alternative 4 would be located within the same operating distance as the existing container terminal and on-site facilities served by the USCG and would therefore not increase emergency response times. Additionally, the increase in 89 vessel calls (from 249 in the CEQA baseline year to 338 by 2027) would not reduce available USCG resources or increase response times due to adequate staffing levels and the fact that, while the vessels will increase annually, daily vessel calls are expected to remain the same. Accordingly, Alternative 4 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port

Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects, and impacts to law enforcement services would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 4 would require 0.340 officers, or 0.012 additional officers than the 0.328 officers required by the 291 acres under NEPA baseline conditions. The proposed Project would be located within the same operating distance as the existing container terminal and other facilities served by the USCG and would therefore not increase emergency response times. Additionally, the increase of 52 vessel calls (from 286 in the NEPA baseline year to 338 by 2027) would not reduce available USCG resources or increase response times due to adequate staffing levels and the fact that, while the vessels will increase annually, daily vessel calls are expected to remain the same. Accordingly, Alternative 4 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-2: Development of Alternative 4 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

Alternative 4 would add six new cranes to the existing wharf for a total of 18 cranes, develop 41 acres of additional backlands, and make other landside terminal improvements identical to the proposed Project.

For utility connections in the public rights-of-way, the construction contractors would be required to, through contract specifications or pursuant to the Public Services Relocation Plan, coordinate with LAFD prior to commencement of construction activities so that service providers could identify alternative response routes to ensure continuous and adequate fire and emergency vehicular access to the Project area in order to keep impacts to a less than significant level. Because any modifications to existing firefighting infrastructure such as fire hydrants, water supply trunk lines, and distribution mains in the vicinity would be consistent with the Public Services Relocation Plan, which is described in Section 2.5.2.5 and would be subject to review and approval by the LAFD and LADWP, Alternative 4 would not affect fire flow or impede emergency response services in the Project area. Since fire protection features, such as fire hydrants and water supply

lines, would be incorporated into the design process for this alternative, terminal operations would not substantially increase the demand for fire protection services. Furthermore, the LAFD would be notified in advance and afforded the opportunity to review and comment on proposed Project features affecting emergency access.

CEQA Impact Determination

Terminal operations under Alternative 4 would not affect emergency response times because the site would have a similar layout and land uses, with the same distances to fire stations as currently exists. In addition, no existing fire lanes or hydrants would be relocated without LAFD approval, and fire protection features such as fire hydrants and water supply lines, would be incorporated into the terminal design. Because Alternative 4 would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Terminal operations under this alternative would not affect emergency response times because the site would undergo minor development changes, no existing fire lanes or hydrants would be relocated without LAFD approval, and fire safety measures (such as site access and terminal fire flow) would be reviewed by the LAFD (USACE and POLA, 2007; POLA, 2009). Because Alternative 4 would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, less than significant impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-3: Alternative 4 would not result in substantial new off-site public utility infrastructure; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.

The building development under this alternative (i.e., expansion of the Power Shop Building and Marine Office Facilities) would not include major water-consuming industrial or commercial processes; therefore, construction and operation would not require substantial quantities of water. The on-site water distribution system would connect with the existing trunk lines and distribution mains in the Project area, consistent with the Public Services Relocation Plan. Existing fire hydrants in the proposed Project area have sufficient capacity to accommodate increased water demands described above,

although additional fire hydrants would be incorporated the terminal design. In addition, water mains servicing the Project area have sufficient capacity to accommodate water demands required to support proposed Project operations.

Construction and/or expansion of on-site water or wastewater lines would be required to support new terminal development under Alternative 4; however, the increases in water demand and wastewater generation would be considered negligible, as shown in Tables 3.13-2 and 3.13-3. This would represent 0.00940 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies. The CEQA baseline demand of 36,254 gpd, or 40.61 afy, represent 0.00653 percent of the CEQA baseline LADWP water demand (621,458 acre-feet). The NEPA baseline demand of 42,278 gpd, or 47.36 afy, represent 0.00666 percent of the NEPA baseline LADWP water demand (710,800 acre-feet). As described under the proposed Project, based on the findings of the WSA for the proposed Project, which was approved by LADWP on April 5, 2011, adequate supplies exist to serve this alternative, and that the associated increase in demand would not significantly or negatively impact the LADWP's future supply (Appendix J).

Alternative 4 would result in minimal increases in wastewater demands, associated with increased staff levels. Alternative 4 would generate approximately 0.06 mgd of wastewater by year 2027, which represents 0.34 percent of existing treatment flow and 0.20 percent of daily capacity at TIWRP. Wastewater generated from the Project site during construction and operation would be conveyed to, and treated at the TIWRP. The TIWRP has a capacity of 30 mgd and currently operates at 58 percent capacity. The City projects that by 2020, wastewater flows in the TIWRP service area will grow from the current 17.5 mgd to 19.9 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation and LADWP, 2006); therefore, approximately 10 mgd in daily capacity at TIWRP would remain unused and available for future years. As described above, at current growth rates of wastewater flow levels, TIWRP will have adequate capacity to serve Alternative 4 flows in 2027. The negligible increase in wastewater flows from construction and operation would not exceed the daily capacity of the TIWRP or conveyance system (e.g., sewer trunk lines in the proposed Project area or other off-site infrastructure or facilities) over the long term. The Port would prepare a Public Services Relocation Plan as part of Alternative 4 to address the public utilities that would be affected by terminal construction, which would be reviewed by the service providers and City departments prior to implementation. Because new utility connections would be located within existing City streets or existing pipeline corridor easements, they would comply with the City municipal code, and would be performed under permit by the City Bureau of Engineering and/or LADWP. Modifications of, or connections with, utility lines would not result in significant environmental impacts.

CEQA Impact Determination

Alternative 4 would result in increased runoff associated with the development of 41 acres of newly paved area. The total acreage would be 302 acres, which amounts to 11 acres more than the CEQA baseline acreage of 291 acres. The proposed Project would be designed to accommodate increases in runoff rates without substantially affecting off-site storm drain systems. The Project site is adjacent to the Harbor and in close proximity to the TIWRP. Project site runoff would be conveyed to the Harbor (discharges in the vicinity of the wharf) after pre-treatment through a SUSMP device. Furthermore, because the proposed Project is located adjacent to the Harbor and TIWRP,

construction and/or expansion of off-site stormwater drainage or wastewater conveyance facilities would not be required.

The amount of wastewater generated by the proposed Project (0.20 percent of TIWRP capacity) over that of the CEQA baseline (0.12 percent of TIWRP capacity) would not significantly affect existing or future capacity at TIWRP due to the substantial remaining capacity beyond 2020, which is estimated to adequately handle 2027 wastewater flow demands. The proposed Project area is served by existing wastewater conveyance systems that would not be significantly affected by wastewater generated during construction. Therefore, the proposed Project would result in less than significant impacts to utility systems under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Construction of Alternative 4 would generate approximately 0.0018 mgd of wastewater and operations would generate 0.060 mgd. The total wastewater generated under this alternative would be negligible and would not affect TIWRP capacity or conveyance capacity.

Over-water and upland construction activities under Alternative 4 would not require the removal or relocation of water supply distribution mains and sewer trunk lines within the terminal vicinity, nor would they result in runoff that could exceed storm drain capacity. Further, Alternative 4 would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Since public utilities would not be affected by improvements under Alternative 4, adverse impacts associated with construction and/or expansion of water, wastewater, and storm drain infrastructure would not occur. Therefore, less than significant impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-4: Alternative 4 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.

As discussed under Impact PS-3, Alternative 4 would result in less than significant demand increases for water and wastewater supplies that would be accommodated by LADWP, on-site water supply sewer infrastructure, and existing TIWRP capacity. Alternative 4 would result in a water demand of approximately 59,634 gpd by 2027, or 66.8 afy. This would represent 0.0094 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies based on the findings of the WSA for the proposed Project, which was approved by LADWP on

April 5, 2011 (Appendix J). The CEQA baseline demand of 36,254 gpd, or 40.61 afy, represent 0.00653 percent of the CEQA baseline LADWP water demand (621,458 acre-feet). Water demand would increase slightly during the construction period by approximately 1,800 gpd, or 2.02 afy. The 2010 UWMP estimates that LADWP demand in 2035 would be 710,800 acre-feet, for which LADWP forecasts sufficient water supplies (LADWP, 2010a). Based on the ongoing water demand and supply planning and management efforts of the City, the incremental difference in water demand would not significantly affect water supplies or water distribution infrastructure.

Based on the wastewater generation factor of 24 gpcd, operation of Alternative 4 would result in 0.06 mgd of wastewater, which represents 0.34 percent of the existing flow of 17.5 mgd and 0.20 percent of the TIWRP capacity of 30 mgd. Construction activities would generate approximately 1,800 gpd of wastewater, which constitutes 0.010 percent of existing TIWRP daily flow, which is negligible. Alternative 4 would generate minor increases in water demand and wastewater demand over the CEQA baseline levels; however, since the TIWRP currently operates at 58 percent capacity, these increases would be considered negligible. The amount of wastewater that Alternative 4 generates would not significantly affect existing or future capacity at TIWRP due to the limited operational wastewater flows and the substantial remaining capacity at TIWRP beyond 2020, as described above. Alternative 4 would not exceed the capacity of the TIWRP or conveyance system to accommodate increases in wastewater demands associated with Alternative 4 operations. Therefore, impacts associated with exceeding the capacity of the existing water supply and the TIWRP wastewater treatment facility would be less than significant.

Terminal operations under Alternative 4 would consist primarily of container loading and storage activities that would not generate substantial amounts of solid waste requiring disposal in a landfill. Alternative 4 would generate 112 tons of solid waste per year, or 4 tons above the CEQA baseline level of 108 tons per year. This would represent an increase in the contribution to the permitted capacity at Chiquita Canyon Landfill from 0.0050 percent under CEQA baseline conditions to 0.0051 percent under Alternative 4 operations; the contribution to the permitted capacity at the Sunshine Canyon Landfill would increase from 0.0054 percent to 0.0056 percent; the contribution to the available permitted daily capacity at El Sobrante Landfill would increase the daily contribution from 0.0025 percent to 0.0026 percent. Solid waste generated from Alternative 4 operations after the closure dates for the Chiquita Canyon Landfill (2019) is not expected to result in significant landfill impacts because adequate landfill capacity would remain through 2045 (at the Sunshine Canyon Landfill or El Sobrante Landfill).

CEQA Impact Determination

A substantial amount of debris during construction is not anticipated to be generated because, with the exception of the Roadability Facility and old out-gate, demolition is not required and because construction debris generally is reused or recycled when economically feasible. Although hazardous materials could be encountered, which would require disposal during construction activities, several contaminated soil treatment and disposal options and Class I landfills are available for off-site disposal, providing adequate capacity. Because of this, impacts related to exceeding the capacity of a Class I landfill would be less than significant. Consequently, significant impacts to hazardous materials landfill capacity would not occur. Because adequate landfill capacity would be

available through the Project horizon year of 2027, there would be less than significant impact to landfill capacity under CEQA.

Mitigation Measures

No mitigation is required. Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1, SC PS-2,** and mitigation measure **MM AQ-19** have been added to further reduce the amount of solid waste generated.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

A substantial amount of debris during construction is not anticipated because, with the exception of the Roadability Facility and old out-gate, demolition or substantial excavation would not be required and because construction debris generally is reused or recycled when economically feasible. Although hazardous materials could be encountered, which would require disposal during construction activities, several contaminated soil treatment and disposal options and Class I landfills are available for off-site disposal, providing adequate capacity. Because of this, significant impacts related to exceeding the capacity of a Class I landfill are not anticipated. Because adequate landfill capacity would be available through the Project horizon year of 2027, there would be less than significant impacts to landfill capacity under NEPA.

Mitigation Measures

No mitigation is required. Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1, SC PS-2,** and mitigation measure **MM AQ-19** have been added to further reduce the amount of solid waste generated.

Residual Impacts

Impacts would be less than significant.

Impact PS-5: Implementation of Alternative 4 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 4 activities.

Alternative 4 would add six new cranes to the existing wharf for a total of 18 cranes, and would develop 41 acres of additional backlands, and relinquish 30 acres of backlands under space assignment.

Energy demands during construction activities would be short term and temporary and are not anticipated to result in the substantial waste or inefficient use of energy because the competitive bid process would select cost-effective strategies that support energy efficiency and conservation throughout all construction stages, as described above. Alternative 4 would incorporate all applicable energy conservation measures in compliance with California Building Code CCR Title 24 that requires building energy-efficient standards for new construction (including requirements for new buildings, additions, alterations, and, in nonresidential buildings, repairs). Incorporation of these design standards, as required by state law, would reduce wasteful energy consumption.

Demand for natural gas (space and water heating) would exceed the usage under the CEQA baseline but would not be substantial because terminal buildings represent a minor part of proposed terminal operations.

CEQA Impact Determination

Alternative 4 would generate demands for electricity (in excess of demand under the CEQA baseline) associated with crane operations, facility and backlands operations, site and security lighting, new on-site buildings, and general site maintenance. Electricity for Alternative 4 would be provided by the LADWP. The LADWP has ample generation capacity to meet the needs of its customers (LADWP, 2010b) and will continue to do so with proper planning and development of facilities in accordance with the City Charter. Project electricity demand is expected to peak by 2027. LADWP has communicated that it would be able to provide power to the new industrial stations required for project operations, including possible implementation of full automation (Razkalla, pers. comm., 2011). Based on the LADWP Power IRP, electricity resources and reserves at LADWP will adequately provide electricity for Alternative 4 through the Power IRP planning horizon of 2040 (LADWP, 2010b). Additionally, because LADWP is required by the Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of Alternative 4 by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4). In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. LEED buildings include energy conservation measures such as double-paned windows and dimming fluorescent lights. Mitigation measure **MM AQ-17** would also require installation of fluorescent light bulbs or technology with similar energy-saving capabilities in all interior buildings, and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. As a result, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required. Although significant impacts related to energy demand would not occur, mitigation measures **MM AQ-17 and MM AQ-18** have been added to further reduce energy demand.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 4 would generate demands for electricity (in excess of demand under the NEPA baseline) associated with expanded crane operations, increased facility and backlands operations, additional site and security lighting, new on-site buildings, and general site maintenance. The LADWP has ample generation capacity to meet the needs of its customers and will continue to do so with proper planning and development of facilities in accordance with the City Charter (LADWP, 2010b). Alternative 4 electricity demand is expected to peak by 2027. LADWP has communicated that it would be able to provide power for Project operations because LADWP has adequate electrical power to supply the proposed container terminal (Razkalla, pers. comm., 2011). Based on the LADWP Power IRP, LADWP electricity resources and reserves will adequately provide electricity for Alternative 4 through the Power IRP planning horizon of 2040

(LADWP, 2010b). Additionally, because LADWP is required by the Charter to provide a reliable supply of electricity for its customers because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of Alternative 4 by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4). In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. LEED buildings include energy conservation measures such as double-paned windows and dimming fluorescent lights. Mitigation measure **MM AQ-17** would also require installation of fluorescent light bulbs or technology with similar energy-saving capabilities in all interior buildings, and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. Therefore, impacts on energy supply facilities would be less than significant under NEPA.

Mitigation Measures

No mitigation is required. Although significant impacts related to energy demand would not occur, mitigation measures **MM AQ-17 and MM AQ-18** have been added to further reduce energy demand.

Residual Impacts

Impacts would be less than significant.

3.13.4.3.2.5 Alternative 5 – Reduced Project: No Space Assignment

Alternative 5 would improve the existing terminal, construct a new wharf (1,250 ft) creating Berth 306, add 12 new cranes to Berths 302-306, add 56 acres for backlands, wharfs, and gates improvements, construct electrification infrastructure in the backlands behind Berths 305-306, and relinquish the 30 acres currently on space assignment. This alternative would be the same as the proposed Project, except that EMS would relinquish the 30 acres of backlands under space assignment. As with the proposed Project, the 41-acre backlands and Berth 306 under Alterative 5 could utilize traditional container operations, electric automated operations, or a combination of the two over time. Dredging of the Pier 300 Channel along the new wharf at Berth 306 (approximately 20,000 cy) would occur, with the dredged material beneficially reused, and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2).

Under Alternative 5, the total gross terminal acreage would be 317 acres, which is less than the proposed Project. TEU throughput would be the same as the proposed Project, with an expected throughput of approximately 3.2 million TEUs by 2027. This would translate into 390 annual ship calls at Berths 302-306. In addition, this alternative would result in up to 11,361 peak daily truck trips (3,003,157 annual) including drayage, and up to 2,953 annual one-way rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

Impact PS-1: Alternative 5 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.

Alternative 5 would construct a new wharf at Berth 306, add 12 new cranes for a total of 24, dredge along Berth 306, develop 56 acres of new terminal area (includes 4 acres associated with the deck of the new wharf, and backland areas), and relinquish 30 acres of backlands under space assignment resulting in a 317-acre terminal. When compared against the CEQA baseline, Alternative 5 would result in similar environmental impacts to the proposed Project because its operational capacity would be the same. The wharf improvements, under Alternative 5 would allow greater ship calls and would accommodate larger ships compared to the CEQA baseline.

As previously described in Section 3.13.2.1.2, existing response times provided by the USCG, LAPD, and Port Police are considered adequate. During construction of Alternative 5, utility connections within the public rights-of-way could result in the minor temporary interruption and/or delays in law enforcement response. However, construction contractors would be required by the contract specification or pursuant to the Public Services Relocation Plan to coordinate with LAPD and Port Police during construction of all utility construction in roadways to establish alternative response routes, ensuring continuous law enforcement access to surrounding areas.

CEQA Impact Determination

The total developed area under Alternative 5 would be 317 acres. During operation, Alternative 5 would require 0.356 officers, or 0.028 additional officers than the 0.328 officers required by the 291 acres under CEQA baseline conditions. The terminal under Alternative 5 would be located within the same operating distance as the existing container terminal and on-site facilities served by the USCG and would therefore not increase emergency response times. Additionally, the increase of 141 vessel calls (from 249 in the CEQA baseline year to 390 by 2027) would not reduce available USCG resources or increase response times due to adequate staffing levels and the fact that, while the vessels will increase annually, daily vessel calls are expected to remain the same. Accordingly, Alternative 5 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects, and impacts to law enforcement services would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The total developed area under Alternative 5 would be 317 acres. During operation, Alternative 5 would require 0.356 officers, or 0.028 additional officers than the 0.328 officers required by the 291 acres under NEPA baseline conditions. The proposed Project would be located within the same operating distance as the existing container terminal and other facilities served by the USCG and would therefore not increase emergency response times. Additionally, the increase of 141 vessel calls (from 286 in the NEPA baseline year to 390 by 2027) would not reduce available USCG resources or increase response times due to adequate staffing levels and the fact that, while the vessels would increase annually, daily vessel calls are expected to remain the same. Accordingly, Alternative 5 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-2: Development of Alternative 5 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

Alternative 5 would construct a new wharf at Berth 306, add 12 new cranes for a total of 24, dredge along Berth 306, develop 56 acres of new terminal area (includes 4 acres associated with the deck of the new wharf, and backland areas), and relinquish 30 acres of backlands under space assignment resulting in a 317-acre terminal.

For utility connections in the public rights-of-way, the construction contractors would be required to, through contract specifications or pursuant to the Public Services Relocation Plan, coordinate with LAFD prior to commencement of construction activities so that service providers could identify alternative response routes to ensure continuous and adequate fire and emergency vehicular access to the Project area in order to keep impacts to a less than significant level. Because any modifications to existing firefighting infrastructure such as fire hydrants, water supply trunk lines, and distribution mains in the vicinity would be consistent with the Public Services Relocation Plan, which is described in Section 2.5.2.5 (in Chapter 2) and would be subject to review and approval by the LAFD and LADWP, Alternative 5 would not affect fire flow or impede emergency response services in the Project area. Since fire protection features, such as fire hydrants and water supply lines, would be incorporated into the design process for this alternative, terminal operations would not substantially increase the demand for fire protection services. Furthermore, the LAFD would be notified in advance and afforded the opportunity to review and comment on proposed Project features affecting emergency access.

CEQA Impact Determination

Alternative 5 would not affect emergency response times because the site would have a similar layout and land uses, with the same distances to fire stations as currently exists. In addition, no existing fire lanes or hydrants would be relocated without LAFD approval, and fire protection features such as fire hydrants and water supply lines, would be incorporated into the terminal design. Because Alternative 5 would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 5 would not affect emergency response times because the site would have the same layout and land use, no existing fire lanes or hydrants would be relocated without LAFD approval, and fire safety measures (such as site access and terminal fire flow) would be reviewed by the LAFD as a standard practice (USACE and POLA, 2007; POLA, 2009). Because Alternative 5 would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, less than significant impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-3: Alternative 5 would not result in substantial new off-site public utility infrastructure; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.

The building development under Alternative 5 (i.e., expansion of the Power Shop Building and Marine Office Facilities) would not include major water-consuming industrial or commercial processes; therefore, construction and operation would not require substantial quantities of water. The on-site water distribution system would connect with the existing trunk lines and distribution mains in the Project area, consistent with the Public Services Relocation Plan. Existing fire hydrants in the proposed Project area have sufficient capacity to accommodate increased water demands described above, although additional fire hydrants would be incorporated the terminal design. In addition, water mains servicing the Project area have sufficient capacity to accommodate water demands required to support proposed Project operations.

Construction and/or expansion of on-site water or wastewater lines would be required to support new terminal development under Alternative 5; however, the increases in water demand and wastewater generation would be considered negligible, as shown in Tables 3.13-2 and 3.13-3. Alternative 5 would result in water demand of approximately 67,530 gpd by 2027, or 75.64 afy. This would represent 0.01064 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies. (LADWP, 2010a). As described under the proposed Project, based on the findings of the WSA for the proposed Project, which was approved by LADWP on April 5, 2011, adequate supplies exist to serve this alternative, and that the associated increase in demand would not significantly or negatively impact the LADWP's future supply (Appendix J).

Alternative 5 would result in minimal increases in wastewater demands, associated with increased staff levels. Alternative 5 is expected to generate approximately 0.068 mgd of wastewater by year 2027, which represents 0.39 percent of existing treatment flow and 0.23 percent of daily capacity at TIWRP. Wastewater generated from the Project site during construction and operation would be conveyed to, and treated at the TIWRP. The TIWRP has a capacity of 30 mgd and currently operates at 58 percent capacity. The City projects that by 2020, wastewater flows in the TIWRP service area will grow from the current 17.5 mgd to 19.9 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation and LADWP, 2006); therefore, approximately 10 mgd in daily capacity at TIWRP would remain unused and available for future years. As described above, at current growth rates of wastewater flow levels, TIWRP will have adequate capacity to serve Alternative 5 flows in 2027. The negligible increase in wastewater flows from construction and operation would not exceed the daily capacity of the TIWRP or conveyance system (e.g., sewer trunk lines in the proposed Project area or other off-site infrastructure or facilities) over the long term. The Port would prepare a Public Services Relocation Plan as part of Alternative 5 to address the public utilities that would be affected by terminal construction, which would be reviewed by the service providers and City departments prior to implementation. Because new utility connections would be located within existing City streets or existing pipeline corridor easements, they would comply with the City municipal code, and would be performed under permit by the City Bureau of Engineering and/or LADWP. Modifications of, or connections with, utility lines would not result in significant environmental impacts.

CEQA Impact Determination

Alternative 5 would result in increased runoff associated with the development of 56 acres of newly paved area for backlands, wharf, and gates. The total acreage would be 317 acres, which amounts to 26 acres more than the CEQA baseline acreage of 291 acres. The proposed Project would be designed to accommodate increases in runoff rates without substantially affecting off-site storm drain systems. The Project site is adjacent to the Harbor. Project site runoff would be conveyed to the Harbor (discharges in the vicinity of the wharf) after pre-treatment through a SUSMP device. Furthermore, because the proposed Project is located adjacent to the Harbor and TIWRP, construction and/or expansion of off-site stormwater drainage or wastewater conveyance facilities would not be required.

As shown in Table 3.13-2, Alternative 5 would result in water demands that would represent 0.01064 percent of anticipated LADWP water demand, which is slightly greater than CEQA baseline conditions (0.00653 percent of LADWP water demand). Because

the UWMP addresses water supply for the City and because the terminal site and the Port of Los Angeles are a part of the City, the UWMP accounts for water usage by Alternative 5. In addition, the UWMP is required to be updated every 5 years, thus the water demand and supply planning would be continued. Because of this, the negligible incremental difference in water demand would not significantly affect water supplies or water-distribution infrastructure. The water mains serving the Project area have sufficient capacity to accommodate water demands required to support terminal operations under this alternative.

As shown in Table 3.13-3, Alternative 5 would generate 0.068 mgd of wastewater, which is slightly greater than the 0.036 mgd generated under the CEQA baseline conditions. The total wastewater generated under this alternative would be negligible and would not affect TIWRP capacity or conveyance capacity.

Although the water and wastewater demand by Alternative 5 would exceed that of the CEQA baseline, it would not significantly affect existing or future LADWP supply or TIWRP capacity, as described previously. The Alternative 5 Project area is served by existing infrastructure that would not be significantly affected by construction or operation of the improvements under this alternative. Therefore, Alternative 5 would result in less than significant impacts to utility systems under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The Alternative 5 site would be 317 acres, whereas the terminal would be 291 acres under the NEPA baseline. As shown in Table 3.13-2, full operation of the container terminal under Alternative 5 would result in water demands that would represent 0.01064 percent of anticipated LADWP water demand, which is slightly greater than NEPA baseline conditions (0.00666 percent of LADWP water demand). Because the UWMP addresses water supply for the City and because the terminal site and the Port of Los Angeles are a part of the City, the UWMP accounts for water usage by Alternative 5. In addition, the UWMP is required to be updated every 5 years, thus the water demand and supply planning would be continued. Because of this, the negligible incremental difference in water demand would not significantly affect water supplies or water-distribution infrastructure. The water mains serving the Project area have sufficient capacity to accommodate water demands required to support terminal operations under this alternative.

As shown in Table 3.13-3, Alternative 5 would generate 0.068 mgd of wastewater, which is slightly greater than the 0.042 mgd generated under the NEPA baseline conditions. The total wastewater generated under this alternative would be negligible and would not affect TIWRP capacity or conveyance capacity.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-4: Alternative 5 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.

As discussed under Impact PS-3, Alternative 5 would result in less than significant demand increases for water and wastewater supplies that would be accommodated by LADWP, on-site water supply sewer infrastructure, and existing TIWRP capacity. Alternative 5 would result in a water demand of approximately 67,530 gpd, or 75.64 afy. This would represent 0.01064 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies based on the findings of the WSA for the proposed Project, which was approved by LADWP on April 5, 2011 (Appendix J). Water demand would increase slightly during the construction period by approximately 2,400 gpd, or 2.7 afy. The 2010 UWMP estimates that LADWP demand in 2035 would be 710,800 acre-feet, for which LADWP forecasts sufficient water supplies (LADWP, 2010a). Based on the ongoing water demand and supply planning and management efforts of the City, the incremental difference in water demand would not significantly affect water supplies or water distribution infrastructure.

Based on the wastewater generation factor of 24 gpcd, operation of Alternative 5 would result in 0.068 mgd of wastewater, which represents 0.39 percent of the existing flow of 17.5 mgd and 0.23 percent of the TIWRP capacity of 30 mgd. Construction activities would generate approximately 2,400 gpd of wastewater, which constitutes 0.014 percent of existing TIWRP daily flow, which is negligible. Alternative 5 would generate minor increases in water demand and wastewater demand over the CEQA baseline levels; however, since the TIWRP currently operates at 58 percent capacity, these increases would be considered negligible. The amount of wastewater that Alternative 5 generates would not significantly affect existing or future capacity at TIWRP due to the limited operational wastewater flows and the substantial remaining capacity at TIWRP beyond 2020, as described above. Alternative 5 would not exceed the capacity of the TIWRP or conveyance system to accommodate increases in wastewater demands associated with Alternative 5 operations. Therefore, impacts associated with exceeding the capacity of the existing water supply and the TIWRP wastewater treatment facility would be less than significant.

CEQA Impact Determination

Alternative 5 would result in the increased water demand of 67,530 gpd, or 75.64 afy. This represents an increase over the CEQA baseline level of 36,254 gpd, or 40.61 afy. This represents an increased percentage of LADWP demand by 0.0041 percent. Alternative 5 would represent an increase in wastewater generation over the CEQA baseline from 0.036 mgd (0.12 percent of TIWRP capacity) to 0.068 mgd (0.23 percent of TIWRP capacity).

Terminal operations under Alternative 5 primarily would consist of container loading and storage activities that would not generate substantial amounts of solid waste requiring

disposal in a landfill. Alternative 5 would generate 117 tons of solid waste per year, or 9 tons above the CEQA baseline level of 108 tons per year. This would represent an increase in the contribution to the permitted capacity at Chiquita Canyon Landfill from 0.0050 percent under CEQA baseline conditions to 0.0054 percent from terminal operations. The contribution to the permitted throughput at the Sunshine Canyon Landfill would increase from 0.0054 percent to 0.0059 percent; the daily contribution to the available permitted daily capacity at El Sobrante Landfill would increase from 0.0025 percent (under CEQA baseline conditions) to 0.0027 percent. Solid waste generated from Alternative 5 operations after the closure dates for the Chiquita Canyon Landfill (2019) is not expected to result in significant landfill impacts because adequate landfill capacity would remain through 2045 (at the Sunshine Canyon Landfill or El Sobrante Landfill).

A substantial amount of debris during construction is not anticipated to be generated because, with the exception of the Roadability Facility and old out-gate, demolition is not required, and because construction debris generally is reused or recycled when economically feasible. Although hazardous materials could be encountered, which would require disposal during construction activities, several contaminated soil treatment and disposal options and Class I landfills are available for off-site disposal, providing adequate capacity. Because of this, impacts related to exceeding the capacity of a Class I landfill would be less than significant. Consequently, significant impacts to hazardous materials landfill capacity would not occur. Because adequate landfill capacity would be available through the Alternative 5 horizon year of 2027, this alternative would result in less than significant impacts to landfill capacity under CEQA.

Mitigation Measures

No mitigation is required. Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1, SC PS-2,** and mitigation measure **MM AQ-19** have been added to further reduce the amount of solid waste generated.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 5 would result in the increased water demand of 67,530 gpd, or 75.64 afy. This represents an increase over the NEPA baseline level of 42,278 gpd, or 47.36 afy. This represents an increased percentage of LADWP by 0.004 percent. Alternative 5 would represent an increase in wastewater generation over the NEPA baseline from 0.042 mgd (0.14 percent of TIWRP capacity) to 0.068 mgd (0.23 percent of TIWRP capacity).

Alternative 5 would generate approximately 117 tons of solid waste per year, or 9 tons above the baseline level of 108 tons per year. This would represent an increase in the contribution to the permitted capacity at Chiquita Canyon Landfill from 0.0050 percent under NEPA baseline conditions to 0.0054 percent; the contribution to the permitted throughput at the Sunshine Canyon Landfill would increase from 0.0054 percent to 0.0059 percent; the contribution to the available daily capacity for the El Sobrante Landfill would increase from 0.0025 percent (under NEPA baseline conditions) to 0.0027 percent. Solid waste generated from Alternative 5 operations after the closure date of Chiquita Canyon Landfill (anticipated to be 2019) is not expected to result in significant impacts because adequate capacity would exist through 2045 (Sunshine Canyon Landfill,

and/or El Sobrante Landfill). Alternative 5 would include in-water, over-water, and upland construction activities that would not be part of the NEPA baseline (see Section 2.6.2). A substantial amount of debris during construction is not anticipated, with the exception of the Roadability Facility and old out-gates, and because demolition is not required and because construction debris is generally reused or recycled when economically feasible.

Although hazardous materials could be encountered, which would require disposal during construction activities, several contaminated soil treatment and disposal options and Class I landfills are available for off-site disposal, providing adequate capacity. Because of this, impacts related to exceeding the capacity of a Class I landfill would be less than significant. Consequently, significant impacts to hazardous materials landfill capacity would not occur. Because adequate landfill capacity would be available through the Alternative 5 horizon year of 2027, there would be less than significant impacts to landfill capacity under NEPA.

Mitigation Measures

No mitigation is required. Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1, SC PS-2,** and mitigation measure **MM AQ-19** have been added to further reduce the amount of solid waste generated.

Residual Impacts

Impacts would be less than significant.

Impact PS-5: Implementation of Alternative 5 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 5 activities.

Alternative 5 would construct a new wharf at Berth 306, add 12 new cranes for a total of 24, dredge along Berth 306, develop 56 acres of new terminal area (includes 4 acres associated with the deck of the new wharf, and backland areas), and relinquish 30 acres of backlands under space assignment, resulting in a 317-acre terminal. The 41-acre backlands would utilize traditional container operations initially and then potentially transition to partial or fully automated operations.

Energy demands during construction activities would be short term and temporary and are not anticipated to result in the substantial waste or inefficient use of energy because the competitive bid process would select cost-effective strategies that support energy efficiency and conservation throughout all construction stages, as described above. Alternative 5 would incorporate all applicable energy conservation measures in compliance with California Building Code CCR Title 24 that requires building energy-efficient standards for new construction (including requirements for new buildings, additions, alterations, and, in nonresidential buildings, repairs). Incorporation of these design standards, as required by state law, would reduce wasteful energy consumption.

CEQA Impact Determination

Demand for natural gas (space and water heating) would exceed the usage under the CEQA baseline but would not be substantial because terminal buildings represent a minor part of proposed terminal operations.

Alternative 5 would result in a similar energy demand projection as the proposed Project because its operational capacity would be the same and the terminal configurations would be similar. Conventional terminal operations would generate demands for electricity (in excess of demand under the CEQA baseline) associated with crane operations, facility and backlands operations, site and security lighting, new on-site buildings, general site maintenance, and AMP. The conventional terminal at Berth 302-305 combined with the automated system at Berth 306 would consume approximately 56 percent more of electricity than a fully conventional terminal. Project electricity demand is expected to peak by 2027. Full automation would decrease diesel power by approximately 1,131,034 kWh. Nevertheless, the LADWP has ample generation capacity to meet the needs of its customers (LADWP, 2010b) and will continue to do so with proper planning and development of facilities in accordance with the City Charter. LADWP has communicated that it would be able to provide power to the new industrial stations required for the new cranes, electric RMG infrastructure, new reefers, and AMP (Razkalla, pers. comm., 2011). Based on the LADWP Power IRP, LADWP electricity resources and reserves will adequately provide electricity for Alternative 5 through the Power IRP planning horizon of 2040 (LADWP, 2010b). Additionally, because LADWP is required by the Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of Alternative 5 by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4). In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. LEED buildings include energy conservation measures such as double-paned windows and dimming fluorescent lights. Mitigation measure **MM AQ-17** would also require installation of fluorescent light bulbs or technology with similar energy-saving capabilities in all interior buildings, and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. As a result, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required. Although significant impacts related to energy demand would not occur, mitigation measures **MM AQ-17** and **MM AQ-18** have been added to further reduce energy demand.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Natural gas demand under Alternative 5 (space and water heating) would exceed the usage under the NEPA baseline but would not be substantial because terminal buildings represent a minor part of proposed terminal operations.

Alternative 5 operations would generate demands for electricity (in excess of demand under the NEPA baseline) associated with expanded crane operations, increased facility and backlands operations, additional site and security lighting, new on-site buildings, general site maintenance, and AMP. With transition from conventional operations to automation (mostly electric equipment) assumed by 2027, electricity demand is expected to peak by 2027. Although electrical power use would increase by approximately 56 percent under full automation of the backlands with the remaining conventional terminal, it would decrease diesel power by approximately 1,131,034 kWh for 1,832,000 annual vessel lifts. Nonetheless, the LADWP has ample generation capacity to meet the needs of its customers and will continue to do so with proper planning and development of facilities in accordance with the City Charter. The LADWP has communicated that it would be able to provide power to the new industrial stations required for the new cranes, new reefers, and AMP because LADWP has adequate electrical power capacity to supply the proposed container terminal (Razkalla, pers. comm., 2011). Based on the LADWP Power IRP, LADWP electricity resources and reserves will adequately provide electricity for Alternative 5 through the Power IRP planning horizon of 2040 (LADWP, 2010b). Additionally, because LADWP is required by the Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of Alternative 5 by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4). In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. LEED buildings include energy conservation measures such as double-paned windows and dimming fluorescent lights. Mitigation measure **MM AQ-17** would also require installation of fluorescent light bulbs or technology with similar energy-saving capabilities in all interior buildings, and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. Therefore, impacts on energy supply facilities would be less than significant under NEPA.

Mitigation Measures

No mitigation is required. Although significant impacts related to energy demand would not occur, mitigation measures **MM AQ-17** and **MM AQ-18** have been added to further reduce energy demand.

Residual Impacts

Impacts would be less than significant.

3.13.4.3.2.6 Alternative 6 – Proposed Project with Expanded On-Dock Railyard

Alternative 6 would be the same as the proposed Project; however, the existing on-dock railyard on the terminal would be redeveloped and expanded. Under this alternative, approximately 10 acres of backlands would be removed from container storage for the railyard expansion. Alternative 6 would improve the existing terminal, develop the existing 41-acre fill area as backlands, add 1,250 ft of new wharf creating Berth 306, and

dredge the Pier 300 Channel along Berth 306. Under this alternative, 12 new cranes would be added to the wharves along Berths 302-306, for a total of 24 cranes. As with the proposed Project, the 41-acre backlands and Berth 306 under Alterative 6 could utilize traditional container operations, electric automated operations, or a combination of the two over time. Dredging of the Pier 300 Channel along Berth 306 would occur (removal of approximately 20,000 cy of material), with the dredged material beneficially reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2). Total terminal acreage (347) would be the same as the proposed Project.

Based on the throughput projections, TEU throughput would be the same as the proposed Project, with an expected throughput of approximately 3.2 million TEUs by 2027. This would translate into 390 annual ship calls at Berths 302-306. In addition, Alternative 6 would result in up to 10,830 peak daily truck trips (2,862,760 annual), and up to 2,953 annual rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

Impact PS-1: Alternative 6 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.

Alternative 6 would result in the same improvements as the proposed Project, plus an expanded on-dock railyard on the terminal. This alternative would include a new wharf at Berth 306, would add 12 A-frame cranes to the improved terminal wharves for a total of 24 cranes, and would dredge the channel at Berth 306. Backlands would be expanded onto the existing 41-acre fill area behind Berths 305 and 306, and at upland areas (11 acres) adjacent to the existing terminal. When compared against the CEQA baseline, Alternative 6 would result in similar environmental impacts to the proposed Project because the operational capacity and terminal configurations would be similar. Alternative 6 would not result in significant increases on law enforcement personnel or facilities under CEQA. Therefore, significant impacts under CEQA would not occur.

CEQA Impact Determination

As previously described in Section 3.13.2.1.2, existing response times provided by the USCG, LAPD, and Port Police are considered adequate. During construction of Alternative 6, utility connections within the public right-of-way resulted in the minor temporary interruption and/or delays for law enforcement; however, construction contractors were required by the contract specifications to coordinate with LAPD and Port Police when construction in roadways occurred so that alternative response routes could be established. As shown in Table 3.13-1, continued operation of the Alternative 6 would require 0.390 officers, or 0.062 more officers than the 0.328 officers required under CEQA baseline conditions. The container terminal under Alternative 6 would be located within the same operating distance as the existing container terminal and on-site facilities served by the USCG and would therefore not increase emergency response times. Additionally, the increase of 141 vessel calls (from 249 in the CEQA baseline year to 390 by 2027) would not reduce available USCG resources or increase response times due to adequate staffing levels and the fact that while the vessel calls will increase annually, daily vessel calls are expected to remain the same. Accordingly, Alternative 6 would not increase the demand for additional law enforcement officers and/or facilities

such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects, and impacts to law enforcement services would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The terminal under Alternative 6 would be 347 acres, or 56 more acres of backlands compared to the NEPA baseline. Because of this, Alternative 6 would result in a minor increase in demand for law enforcement services than the NEPA baseline. Port Police and LAPD would not be affected. During operation, Alternative 6 would require 0.39 officers, or 0.062 more officers than the 0.328 officers required by the 291 acres under NEPA baseline conditions.

Alternative 6 would be located within the same operating distance as the existing container terminal and other facilities served by the USCG and, therefore, would not increase emergency response times. Additionally, the increase of 141 vessel calls (from 286 in the NEPA baseline year to 390 by year 2027) would not reduce available USCG resources or increase response times due to adequate staffing levels and to the fact that, while the vessel calls would increase annually, daily vessel calls are expected to remain the same. Accordingly, Alternative 6 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-2: Development of Alternative 6 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

Alternative 6 would result in the same improvements as the proposed Project, plus an expanded on-dock railyard on the terminal. This alternative would include a new wharf at Berth 306, would add 12 A-frame cranes to the improved terminal wharves for a total of 24 cranes, would dredge along Berth 306, and expand backlands onto the existing 41-acre fill area behind Berths 305 and 306. When compared against the CEQA baseline, Alternative 6 would result in similar environmental impacts to the proposed Project because their operational capacity and terminal configurations would be similar. Alternative 6 would not result in significant increases on law enforcement personnel or facilities under CEQA. Therefore, significant impacts under CEQA would not occur.

For utility connections in the public rights-of-way during construction, the construction contractors would be required by the contract documents to coordinate with LAFD prior to commencement of construction activities so that the LAFD could identify alternative response routes to ensure continuous and adequate fire and emergency vehicular access to the Project area, which would keep impacts to a less than significant level. Modifications to existing firefighting infrastructure such as fire hydrants, water supply trunk lines, and distribution mains in the vicinity would be reviewed and approved by the LAFD and LADWP, and therefore, would not affect fire flow or impede emergency response services in the Project area.

CEQA Impact Determination

Alternative 6 would not affect emergency response times because the expanded site would have the same distances to fire stations as currently exists. In addition, no existing fire lanes or hydrants would be relocated without LAFD approval, and fire protection features such as fire hydrants and water supply lines, would be incorporated into the terminal design. Because Alternative 6 would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Terminal operations under this alternative would not affect emergency response times because the site would have the same land use and layout, and fire safety measures (such as site access and terminal fire flow) would be reviewed and approved by the LAFD as a standard practice (USACE and POLA, 2007; POLA, 2009). Because Alternative 6 would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service, less than significant impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-3: Alternative 6 would not result in substantial new off-site public utility infrastructure; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.

The limited building development under Alternative 6 (i.e., expansion of the Power Shop Building and Marine Office Facilities) would not include major water-consuming industrial or commercial processes; therefore, construction and operation would not require substantial quantities of water. The on-site water distribution system would connect with the existing trunk lines and distribution mains in the Project area, consistent with the Public Services Relocation Plan. Existing fire hydrants in the proposed Project area have sufficient capacity to accommodate increased water demands described above, although additional fire hydrants would be incorporated the terminal design. In addition, water mains servicing the Project area have sufficient capacity to accommodate water demands required to support proposed Project operations.

Construction and/or expansion of on-site water or wastewater lines would be required to support new terminal development under Alternative 6; however, the increases in water demand and wastewater generation would be considered negligible, as shown in Tables 3.13-2 and 3.13-3. Alternative 6 would result in water demand of approximately 66,474 gpd by 2027, or 74.46 afy. This would represent 0.01048 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies. The CEQA baseline demands of 36,254 gpd, or 40.61 afy, represent 0.00653 percent of the baseline LADWP water demand (621,458 acre-feet). As described under the proposed Project, based on the findings of the WSA for the proposed Project, which was approved by LADWP on April 5, 2011, adequate supplies exist to serve this alternative, and that the associated increase in demand would not significantly or negatively impact the LADWP's future supply (Appendix J).

Alternative 6 would result in minimal increases in wastewater demands, associated with increased staff levels. Alternative 6 would generate approximately 0.066 mgd of wastewater by year 2027, which represents 0.38 percent of existing treatment flow and 0.22 percent of daily capacity at TIWRP. Wastewater generated from the Project site during construction and operation would be conveyed to, and treated at the TIWRP. The TIWRP has a capacity of 30 mgd and currently operates at 58 percent capacity. The City projects that by 2020, wastewater flows in the TIWRP service area will grow from the current 17.5 mgd to 19.9 mgd (City of Los Angeles Department of Public Works, Bureau of Sanitation and LADWP, 2006); therefore, approximately 10 mgd in daily capacity at TIWRP would remain unused and available for future years. As described above, at current growth rates of wastewater flow levels, TIWRP will have adequate capacity to serve Alternative 6 flows in 2027. The negligible increase in wastewater flows from construction and operation would not exceed the daily capacity of the TIWRP or conveyance system (e.g., sewer trunk lines in the proposed Project area or other off-site infrastructure or facilities) over the long term. The Port would prepare a Public Services Relocation Plan as part of Alternative 6 to address the public utilities that would be affected by terminal construction, which would be reviewed by the service providers and City departments prior to implementation. Because new utility connections would be located within existing City streets or existing pipeline corridor easements, they would comply with the City municipal code, and would be performed under permit by the City Bureau of Engineering and/or LADWP. Modifications of, or connections with, utility lines would not result in significant environmental impacts.

CEQA Impact Determination

Alternative 6 would result in increased runoff associated with the development of newly paved areas for backlands, wharf, and gates. The total acreage would be 347 acres, which amounts to 56 acres more than the CEQA baseline acreage of 291 acres. The proposed Project would be designed to accommodate increases in runoff rates without substantially affecting off-site storm drain systems. The Project site is adjacent to the Harbor. Project site runoff would be conveyed to the Harbor (discharges in the vicinity of the wharf) after pre-treatment through a SUSMP device. Furthermore, because the proposed Project is located adjacent to the Harbor and TIWRP, construction and/or expansion of off-site stormwater drainage or wastewater conveyance facilities would not be required.

Alternative 6 would result in the increased water demand of 66,474 gpd, or 74.46 afy. This represents an increase over the CEQA baseline level of 36,254 gpd, or 40.61 afy. This represents an increased percentage of LADWP demand by 0.004 percent. Alternative 6 would represent an increase in wastewater generation over the CEQA baseline from 0.036 mgd (0.12 percent of LDWP capacity) to 0.066 mgd (0.22 percent of TIWRP capacity).

Although the water and wastewater demand by Alternative 6 would exceed that of the CEQA baseline, it would not significantly affect existing or future LADWP supply or TIWRP capacity, as described previously. The Alternative 6 Project area is served by existing infrastructure that would not be significantly affected by construction or operation of the improvements under this alternative. Therefore, Alternative 6 would result in less than significant impacts to utility systems under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

As shown in Table 3.13-2, full operation of the container terminal under Alternative 6 would result in water demands that would represent 0.0105 percent of anticipated LADWP water demand, which is greater than NEPA baseline conditions (0.0040 percent of the LADWP water demand). Because the UWMP addresses water supply for the City and because the terminal site and the Port of Los Angeles are a part of the City, the UWMP accounts for the water usage of Alternative 6. In addition, the UWMP is required to be updated every 5 years, thus the water demand and supply planning would be continued. Because of this, the negligible incremental difference in water demand would not significantly affect water supplies or water distribution infrastructure. The water mains serving the Project area have sufficient capacity to accommodate water demands required to support terminal operations under this alternative.

Construction of Alternative 6 generated up to 0.066 mgd of wastewater and, as shown in Table 3.13-3, continued terminal operation would generate 0.003 mgd. The total wastewater generated under this alternative would be negligible and would not affect TIWRP capacity or conveyance capacity.

Although Alternative 6 would result in in-water, over-water, and limited upland construction that is not part of the NEPA baseline, no public utilities would be located in the these areas and, therefore, were not affected by construction of Alternative 6. Therefore, less than significant impacts would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact PS-4: Alternative 6 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.

As discussed under Impact PS-3, Alternative 6 would result in less than significant demand increases for water and wastewater supplies that would be accommodated by LADWP, on-site water supply sewer infrastructure, and existing TIWRP capacity. Alternative 6 would result in a water demand of approximately 66,474 gpd by 2027, or 74.46 afy. This would represent 0.01048 percent of anticipated LADWP water demand (710,800 acre-feet), for which LADWP forecasts sufficient water supplies based on the findings of the WSA for the proposed Project, which was approved by LADWP on April 5, 2011 (Appendix J). Water demand would increase slightly during the construction period by approximately 2,400 gpd, or 2.7 afy. The 2010 UWMP estimates that LADWP demand in 2035 would be 710,800 acre-feet, for which LADWP forecasts sufficient water supplies (LADWP, 2010a). At the full-capacity level of operation, Alternative 6 water demand would represent 0.0080 percent of total projected water demand. Based on the ongoing water demand and supply planning and management efforts of the City, the incremental difference in water demand would not significantly affect water supplies or water distribution infrastructure.

Based on the wastewater generation factor of 24 gpcd, operation of Alternative 6 would result in 0.066 mgd of wastewater, which represents 0.38 percent of the existing flow of 17.5 mgd and 0.22 percent of the TIWRP capacity of 30 mgd. Construction activities would generate approximately 2,400 gpd of wastewater, which constitutes 0.014 percent of existing TIWRP daily flow, which is negligible. Alternative 6 would generate minor increases in water demand and wastewater demand over the CEQA baseline levels; however, since the TIWRP currently operates at 58 percent capacity, these increases would be considered negligible. The amount of wastewater that Alternative 6 generates would not significantly affect existing or future capacity at TIWRP due to the limited operational wastewater flows and the substantial remaining capacity at TIWRP beyond 2020, as described above. Alternative 6 would not exceed the capacity of the TIWRP or conveyance system to accommodate increases in wastewater demands associated with Alternative 6 operations. Therefore, impacts associated with exceeding the capacity of the existing water supply and the TIWRP wastewater treatment facility would be less than significant.

CEQA Impact Determination

Alternative 6 would result in the increased water demand of 66,474 gpd, or 74.46 afy. This represents an increase over the CEQA baseline level of 36,254 gpd, or 40.61 afy, and an increased percentage of LADWP demand by 0.004 percent. Alternative 6 would represent an increase in wastewater generation over the CEQA baseline from 0.036 mgd (0.12 percent of TIWRP capacity) to 0.066 mgd (0.22 percent of TIWRP capacity).

Alternative 6 would primarily consist of container loading and storage activities that would not generate substantial amounts of solid waste requiring disposal in a landfill. Alternative 6 would generate 129 tons of solid waste per year, or 21 tons above the CEQA baseline level of 108 tons per year. This would represent an increase in the contribution to the permitted capacity at Chiquita Canyon Landfill from 0.0050 percent under CEQA baseline conditions to 0.0059 percent from terminal operations. The contribution to the permitted throughput at the Sunshine Canyon Landfill would increase from 0.0054 percent to 0.0064 percent; the contribution to the available permitted daily capacity at El Sobrante Landfill would increase from 0.0025 percent (under CEQA baseline conditions) to 0.0029 percent. Solid waste generated from Alternative 6 operations after the closure dates for the Chiquita Canyon Landfill (2019) is not expected to result in significant landfill impacts because adequate landfill capacity would remain through 2045 (at the Sunshine Canyon Landfill or El Sobrante Landfill).

A substantial amount of debris during construction is not anticipated to be generated because, with the exception of the Roadability Facility and old out-gate, demolition is not required and because construction debris generally is reused or recycled when economically feasible. Although hazardous materials could be encountered, which would require disposal during construction activities, several contaminated soil treatment and disposal options and Class I landfills are available for off-site disposal, providing adequate capacity. Because of this, impacts related to exceeding the capacity of a Class I landfill would be less than significant. Consequently, significant impacts to hazardous materials landfill capacity would not occur. Because adequate landfill capacity would be available through the Project horizon year of 2027, this alternative would result in less than significant impacts to landfill capacity under CEQA.

Mitigation Measures

No mitigation is required. Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1, SC PS-2,** and mitigation measure **MM AQ-19** have been added to further reduce the amount of solid waste generated.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 6 would result in the increased water demand of 66,474 gpd, or 74.46 afy. This represents an increase over the NEPA baseline level of 42,278 gpd, or 47.36 afy, and an increased percentage of LADWP demand by 0.0038 percent. Alternative 6 would represent an increase in wastewater generation over the NEPA baseline from 0.042 mgd (0.14 percent of TIWRP capacity) to 0.066 mgd (0.22 percent of TIWRP capacity).

Alternative 6 would generate 129 tons of solid waste per year, or 21 tons more than the baseline level of 108 tons per year. This would represent an increase in the contribution to the permitted capacity at Chiquita Canyon Landfill from 0.0050 percent under NEPA baseline conditions to 0.0059 percent under terminal operations, an increase in the contribution to the permitted capacity at the Sunshine Canyon Landfill from 0.0054 percent to 0.0064 percent, and an increase in the contribution to the permitted capacity at El Sobrante Landfill from 0.0025 percent to 0.0029 percent. Solid waste generated from Alternative 6 operations after the closure date of Chiquita Canyon Landfill (anticipated to be 2019) is not expected to result in significant impacts because adequate capacity would exist through 2045 (Sunshine Canyon Landfill, and/or El Sobrante Landfill). Alternative 6 includes in-water, over-water, and limited upland construction activities that are not part of the NEPA baseline. A substantial amount of debris during construction is not anticipated because demolition is not required, with the exception of the Roadability Facility and old out-gate, and because construction debris is generally reused or recycled where economically feasible.

Although hazardous materials could be encountered, which would require disposal during construction activities, several contaminated soil treatment and disposal options and Class I landfills are available for off-site disposal, providing adequate capacity. Because of this, impacts related to exceeding the capacity of a Class I landfill would be less than significant. Consequently, significant impacts to hazardous materials landfill capacity would not occur. Because adequate landfill capacity would be available through the Project horizon year of 2027, there would be less than significant impacts to landfill capacity under NEPA.

Mitigation Measures

No mitigation is required. Although significant impacts to landfill capacity would not occur, standard conditions of approval **SC PS-1, SC PS-2,** and mitigation measure **MM AQ-19** have been added to further reduce the amount of solid waste generated.

Residual Impacts

Impacts would be less than significant.

Impact PS-5: Implementation of Alternative 6 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 6 activities.

Alternative 6 would result in the same improvements as the proposed Project, plus an expanded on-dock railyard on the terminal. This alternative would include a new wharf at Berth 306, would add 12 A-frame cranes to the improved terminal wharves for a total of 24 cranes, would dredge the channel in front of Berth 306, expand backlands onto the existing 41-acre fill area behind Berths 305 and 306, and improve the terminal at other upland areas (11 acres).

Energy demands during construction activities under Alternative 6 would be short term and temporary; it would not result in substantial waste or inefficient use of energy because the competitive bid process selected in favor of cost and energy efficiency. Alternative 6 would incorporate all applicable energy conservation measures in compliance with California Building Code CCR Title 24 that requires building energy-efficient standards for new construction (including requirements for new buildings, additions, alterations, and, in nonresidential buildings, repairs). Incorporation of these design standards, as required by state law, would reduce wasteful energy consumption during terminal operation.

CEQA Impact Determination

Demand for natural gas (space and water heating) would exceed the usage under the CEQA baseline but would not be substantial because terminal buildings represent a minor part of proposed terminal operations.

When compared against the CEQA baseline, Alternative 6 would result in similar environmental impacts to the proposed Project because their operational capacity and terminal configurations would be similar. Alternative 6 operations would generate demands for electricity (in excess of demand under the CEQA baseline) associated with crane operations, facility and backlands operations, site and security lighting, new on-site buildings, general site maintenance, and AMP. An additional 56 percent of electrical power would be needed to support full automation combined with the conventional terminal operations. The LADWP has ample generation capacity to meet the needs of its customers and will continue to do so with proper planning and development of facilities in accordance with the City Charter (LADWP, 2010b). Project electricity demand is expected to peak by 2027. LADWP has communicated that it would be able to provide power to the new industrial stations required for the new cranes, electric RMG infrastructure, new reefers, and AMP (Razkalla, pers. comm., 2011). Based on the LADWP Power IRP, electricity resources and reserves at LADWP will adequately provide electricity to support conventional and/or automated operations under Alternative 6 through the Power IRP planning horizon of 2040 (LADWP, 2010b). Additionally, because LADWP is required by the Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of Alternative 6 by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4). In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. LEED buildings include energy conservation measures such as

double-paned windows and dimming fluorescent lights. Mitigation measure **MM AQ-17** would also require installation of fluorescent light bulbs or technology with similar energy-saving capabilities in all interior buildings, and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. As a result, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required. Although significant impacts related to energy demands would not occur, mitigation measures **MM AQ-17** and **MM AQ-18** have been added to further reduce energy demand.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Natural gas demand under Alternative 6 (space and water heating) would exceed the usage under the NEPA baseline but would not be substantial because terminal buildings represent a minor part of proposed terminal operations.

Alternative 6 operations would generate demands for electricity (in excess of demand under the NEPA baseline) associated with expanded crane operations, increased facility and backlands operations, additional site and security lighting, new on-site buildings, general site maintenance, and AMP. The electrical demands would be increased by approximately 56 percent by conventional terminal operations at Berth 302-305 combined with the full automated operations at Berth 306 backlands. The LADWP has ample generation capacity to meet the needs of its customers and will continue to do so with proper planning and development of facilities in accordance with the City Charter. Therefore, electrical infrastructure would be adequate to support either conventional or electric-powered automated operations. Alternative 6 electricity demand is expected to peak by 2027. LADWP has communicated that it would be able to provide power to the new industrial stations required for the new cranes, new reefers, and AMP because LADWP has adequate electrical power capacity to supply the proposed container terminal (Razkalla, pers. comm., 2010). Based on the LADWP Power IRP, LADWP electricity resources and reserves will adequately provide electricity for Alternative 6 through the Power IRP planning horizon of 2040 (LADWP, 2010b). Additionally, because LADWP is required by the Charter to provide a reliable supply of electricity for its customers and because LADWP is moving toward increasing renewable energy supplies in its resource portfolio, the electricity demand of Alternative 6 by itself would not result in the need to construct a new off-site power station or facility (for a discussion of cumulative impacts related to electricity demand, see Chapter 4). In addition, the two terminal buildings built as part of the proposed Project will meet, at minimum, LEED silver certification. LEED buildings include energy conservation measures such as double-paned windows and dimming fluorescent lights. Mitigation measure **MM AQ-17** would also require installation of compact fluorescent light bulbs in all interior buildings and mitigation measure **MM AQ-18** would require the tenant to perform regular energy audits. Therefore, impacts on energy supply facilities would be less than significant under NEPA.

Mitigation Measures

No mitigation is required. Although significant impacts related to energy demand would not occur, mitigation measures **MM AQ-17** and **MM AQ-18** have been added to further reduce energy demand.

Residual Impacts

Impacts would be less than significant.

3.13.4.4 Summary of Impact Determinations

The following Table 3.13-5 summarizes the CEQA and NEPA impact determinations of the proposed Project and alternatives related to Public Services and Utilities, as described in the detailed discussion above. This table is meant to allow easy comparison between the potential impacts of the proposed Project and alternatives with respect to this resource. Identified potential impacts may be based on federal, state, or City of Los Angeles significance criteria, Port criteria, and the scientific judgment of the report preparers.

For each impact threshold, the table describes the impact, notes the CEQA and NEPA impact determinations, describes any applicable mitigation measures, and notes the residual impacts (i.e., the impact remaining after mitigation). All impacts, whether significant or not, are included in this table. Note that impact descriptions for each of the Alternatives are the same as for the proposed Project, unless otherwise noted.

Table 3.13-5: Summary Matrix of Potential Impacts and Mitigation Measures for Public Services and Utilities Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
Proposed Project	**PS-1:** The proposed Project would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-2: Development of the proposed Project would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-3: The proposed Project would not result in a substantial increase in utility demands; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-4: The proposed Project would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.	CEQA: Less than significant	Mitigation not required; however, **SC PS-1: Recycling Construction Materials, SC PS-2: Using materials with recycling conten**t, and **MM AQ-19: Recycling** would further reduce any potential impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-5: Implementation of the proposed Project would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support proposed Project activities.	CEQA: Less than significant	Mitigation not required; however, **MM AQ-17: Compact Fluorescent Light Bulbs** and **MM AQ-18: Energy Audit** would further reduce any potential impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant

Table 3.13-5: Summary Matrix of Potential Impacts and Mitigation Measures for Public Services and Utilities Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
Alternative 1 – No Project	**PS-1:** Alternative 1 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	PS-2: Development of Alternative 1 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	PS-3: Alternative 1 would not result in substantial new off-site public utility infrastructure, construction and/or expansion of on-site water, wastewater, or storm drain lines would not be required to support new terminal development.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	PS-4: Alternative 1 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	PS-5: Implementation of Alternative 1 would not generate increases in energy demands and construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 1 activities.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
Alternative 2 – No Federal Action	**PS-1:** Alternative 2 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact

Table 3.13-5: Summary Matrix of Potential Impacts and Mitigation Measures for Public Services and Utilities Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
	PS-2: Development of Alternative 2 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	PS-3: Alternative 2 would not result in substantial new off-site public utility infrastructure, construction and/or expansion of on-site water, wastewater, or storm drain lines would not be required to support new terminal development.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
	PS-4: Alternative 2 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.	CEQA: Less than significant	Mitigation not required.	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
	PS-5: Implementation of Alternative 2 would not generate increases in energy demands, and construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 2 activities.	CEQA: Less than significant	Mitigation not required.	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
Alternative 3 – Reduced Project: Four New Cranes	**PS-1:** Alternative 3 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
	PS-2: Development of Alternative 3 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
	PS-3: Alternative 3 would not result in substantial new off-site public utility infrastructure; however,	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant

Table 3.13-5: Summary Matrix of Potential Impacts and Mitigation Measures for Public Services and Utilities Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
	construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.	NEPA: Less than significant		NEPA: Less than significant
	PS-4: Alternative 3 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
	PS-5: Implementation of Alternative 3 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 3 activities.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
Alternative 4 – Reduced Project: No New Wharf	**PS-1:** Alternative 4 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-2: Development of Alternative 4 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-3: Alternative 4 would not result in substantial new off-site public utility infrastructure; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-4: Alternative 4 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.	CEQA: Less than significant	Mitigation not required; however, **SC PS-1**, **SC PS-2** and **MM AQ-19** would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant

Table 3.13-5: Summary Matrix of Potential Impacts and Mitigation Measures for Public Services and Utilities Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
	PS-5: Implementation of Alternative 4 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 4 activities.	CEQA: Less than significant NEPA: Less than significant	Mitigation not required however, **MM AQ-17** and **MM AQ-18** would further reduce any potential for impact.	CEQA: Less than significant NEPA: Less than significant
Alternative 5 – Reduced Project: No Space Assignment	**PS-1:** Alternative 5 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.	CEQA: Less than significant NEPA: Less than significant	Mitigation not required	CEQA: Less than significant NEPA: Less than significant
	PS-2: Development of Alternative 5 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.	CEQA: Less than significant NEPA: Less than significant	Mitigation not required	CEQA: Less than significant NEPA: Less than significant
	PS-3: Alternative 5 would not result in substantial new off-site public utility infrastructure; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.	CEQA: Less than significant NEPA: Less than significant	Mitigation not required	CEQA: Less than significant NEPA: Less than significant
	PS-4: Alternative 5 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.	CEQA: Less than significant NEPA: Less than significant	Mitigation not required; however, **SC PS-1**, **SC PS-2** and **MM AQ-19** would further reduce any potential for impact.	CEQA: Less than significant NEPA: Less than significant
	PS-5: Implementation of Alternative 5 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities	CEQA: Less than significant	Mitigation not required however, **MM AQ-17** and **MM AQ-18** would	CEQA: Less than significant

Table 3.13-5: Summary Matrix of Potential Impacts and Mitigation Measures for Public Services and Utilities Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
	and distribution infrastructure would not be required to support Alternative 5 activities.	NEPA: Less than significant	further reduce any potential for impact.	NEPA: Less than significant
Alternative 6 – Proposed Project with Expanded On-Dock Railyard	**PS-1:** Alternative 6 would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-2: Development of Alternative 6 would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-3: Alternative 6 would not result in substantial new off-site public utility infrastructure; however, construction and/or expansion of on-site water, wastewater, or storm drain lines would be required to support new terminal development.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-4: Alternative 6 would not generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities in the proposed Project area.	CEQA: Less than significant	Mitigation not required; however, **SC PS-1**, **SC PS-2** and **MM AQ-19** would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	PS-5: Implementation of Alternative 6 would generate minor increases in energy demands; however, construction of new off-site energy supply facilities and distribution infrastructure would not be required to support Alternative 6 activities.	CEQA: Less than significant	Mitigation not required however, **MM AQ-17** and **MM AQ-18** would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant

3.13.4.5 Mitigation Monitoring

In the absence of significant impacts, mitigation measures are not required. However, standard conditions of approval **SC PS-1** and **SC PS-2** have been added to further reduce the amount of solid waste generated. The following standard conditions would apply to the proposed Project and Alternatives 4, 5, and 6.

SC PS-1: Recycling of Construction Materials. Demolition and/or excess construction materials shall be separated on-site for reuse/recycling or proper disposal. During grading and construction, separate bins for recycling of construction materials shall be provided on-site.

SC PS-2: Materials with Recycled Content. Materials with recycled content shall be used in Project construction where feasible. Chippers on-site during construction shall be used to further reduce excess wood for landscaping cover.

Mitigation measures for greenhouse gases (**MM AQ-17 through MM AQ-19**) are also applicable to the proposed Project and Alternatives 4, 5 and 6 to further reduce energy use (**MM AQ-17** and **MM AQ-18**) and solid waste generation (**MM AQ-19**). The monitoring program for mitigation measure **MM AQ-17 through MM AQ-19** can be found in Section 3.2.4.5 (in Section 3.2, Air Quality, Meteorology, and Greenhouse Gases).

3.13.5 Significant Unavoidable Impacts

No significant unavoidable impacts on Public Services or Utilities would occur during construction or operation of the proposed Project or an alternative.

This page left intentionally blank