3.12

UTITLTIES

3.12

UTILITIES

3.12.1 Introduction

This section identifies the existing utility service systems (water, wastewater, storm drains, solid waste, electricity, and natural gas) within the proposed project area, presents the regulatory setting, and analyzes potential impacts on these systems that could result from development of the proposed Project.

As fully discussed in Section 3.12.4, "Impact Analysis," the proposed Project would not result in any significant impacts related to utilities. No mitigation is required.

3.12.2 Environmental Setting

The public utility providers that serve the proposed project area within the Port include the City of Los Angeles Department of Public Works Bureau of Sanitation (BOS), LADWP, Los Angeles County Department of Public Works (LACDPW), and Southern California Gas Company (SCGC). Each utility has been actively growing in concert with local communities and the region. The individual provisions for providing and delivering service within the particular geographic areas, as well as each utility's planning efforts to accommodate anticipated future growth, are discussed in detail below.

3.12.2.1 Water

Water service is provided to the proposed project area by the LADWP, which is responsible for conserving, treating, and distributing water for domestic, industrial, agricultural, and firefighting purposes within the City. Water sources utilized by LADWP consist of both local sources, such as wells and recycled water (for non-potable uses), and imported water, including water obtained via the Los Angeles Aqueducts and purchases from the Metropolitan Water District of Southern California (Metropolitan). Metropolitan 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.

3.12.2.1.1 Water Supply

In a continuing effort to ensure a reliable water supply for future years, LADWP has invested in various sources, including groundwater, recycled water, and water conservation. Specific supply and demand side management strategies are designed to provide a "hedge" against droughts and variability of surface water. The Urban Water Management Plan (UWMP) estimates water demand and supply through a 25-year outlook period, and is updated every 5 years by LADWP. The UWMP assumes future development as prescribed by the General Plan of the City of Los Angeles when planning future water demand. Correspondingly, development projects that are consistent with the General Plan's land use designation and planned densities are taken into account in the calculations used to predict water demand for future years. Calculations are also based on assumptions regarding the various supplies of water available and existing and projected levels of water conservation. In 2009, an economic recession and water supply shortage required LADWP to impose mandatory conservation. In 2010, mandatory conservation continued as the economic recession became more severe, resulting in a 19% decrease in water use (LADWP 2010a).

Categorically, conservation can be grouped into two main types; active and passive conservation. Passive conservation accounts for the improved water use efficiency of retrofitted and new residential homes and commercial buildings from plumbing code changes. The passive conservation that resulted from the 1991 and 2010 plumbing code updates is accounted for in the 2010 water demand forecast model. Therefore, both cases of demand forecast are presented in the 2010 UWMP. Based on these assumptions, LADWP has predicted service reliability for average and single dry-year conditions and expects to be able to meet future demand with a combination of existing supplies, planned supplies, and Metropolitan purchases (LADWP 2010a).

According to the 2010 UWMP, the average water demand for the LADWP service area from 2005-2010 was approximately 621,458 afy. The UWMP forecasted that the City of Los Angeles would grow 0.4% annually over the next 25 years, or by approximately 367,000 persons over the next 25 years. Total citywide demand for water is predicted to be 675,604 acre-feet in 2025 and 710,760 acre-feet in 2035 with passive water conservation. Total citywide demand for water is predicted to be 632,275 acre-feet in 2025 and 641,622 acre-feet in 2035 with passive and active water conservation. According to the 2010 UWMP, under wet, average, and dry years throughout the 25-year projection period, LADWP's supply portfolio is expected to be reliable, with adequate supplies available to meet projected demands through 2035 (LADWP 2010a).

According to LADWP's *Water System Capital Improvement Program*, 23% of LADWP's 10-year capital budget is allocated to water supply to ensure adequate sources and supply of water for the City. Projects dedicated to water supply involve maintaining groundwater supplies, increasing recycled water supplies, developing new sources of water supply, enhancing water conservation, and ensuring efficient environmental restoration activities in the Eastern Sierra (LADWP 2010b).

Table 3.12-1 identifies the existing land uses, the square footages, and the water demand of the existing uses that would be altered, removed, or otherwise affected

under the proposed Project. Based on the existing land uses, the existing water demand of the study area is estimated to be 4,298 gallons per day (gpd).

Table 3.12-1. Existing Water Use in the Study Area (Estimated)

Location	*Existing Land Use*	*General Land Use*	*Area (gsf)* [a]	*Water Consumption Rate* [b]	*Gallons per Day*	*Gallons per Year*
Berth 56	Vacant land	Vacant, barren lot	28,314	0	0	0
Berth 57	Transit Shed	Warehouse	46,000	22.2 gpd/ 1,000 gsf	1,021	372,738
Berths 58–60	Transit Shed (Vacant)	Warehouse (Vacant)	180,000	0	0	0
Berth 260	SCMI Office	Office	19,000	166.5 gpd/ 1,000 gsf	3,163	1,154,678
Berth 260	SCMI Ancillary Uses	Storage/Workshop	5,100	22.2gpd/ 1,000 gsf	113	41,325
				Total Water Use	**4,298**	**1,568,741**

[a] gsf = gross square feet

[b] Based on the wastewater generation rates from the proposed Project Sewer Capacity Study (BOS 2012), factored at 111% of the wastewater generation rate

3.12.2.1.2 Conveyance Infrastructure

Water supply and conveyance structures comprise a series of reservoirs and a network of pipelines, including reservoir outlets, major trunk lines, and other delivery lines. Trunk lines are pipes with a diameter ranging in size from 20 to 144 inches that transport water from wells and aqueducts to reservoirs, and enable the movement of water from one area of the City to another. Trunk lines connect to smaller pipes known as distribution mains that supply water to the customer's service connection. A total of 36% of LADWP's 10-year capital budget is allocated to infrastructure reliability, mostly work on distribution mains, major system connections, and reservoir improvements (LADWP 2010b).

Distribution water mains are located in and around the proposed project area. Specifically, these mains are located within Harbor Boulevard and Sampson Way, throughout the existing World Cruise Center area, 7th Street, Ports O' Call, the Outer Harbor Terminal, and along Shoshosean Road to Cabrillo Beach. The proposed project site is serviced by a 12-inch water main located within Signal Street.

LADWP requires consultation with applicants, by means of a Service Advisory Request (SAR), to assess whether the current infrastructure would be able to accommodate the increased water demand based on fire flow requirements. If the SAR determines that current infrastructure would not support a project, LADWP requires that additional infrastructure (i.e., water lines) be constructed at the applicant's expense (LADWP 2011a). This consultation is done once all design plans are complete and would typically take place after the CEQA process has

concluded. Should any physical improvements be needed, the impacts may need to be assessed in a subsequent CEQA document (i.e., Addendum, Supplemental EIR).

3.12.2.2 Wastewater

The BOS provides wastewater treatment and sewer service to the City, operating wastewater treatment and reclamation facilities that serve most of its incorporated areas and several other cities and unincorporated areas in the Los Angeles basin and San Fernando Valley. The existing system consists of two treatment plants; two water reclamation plants; a collection system consisting of over 6,500 miles of local, trunk, mainline, and major interceptor sewers; five major outfall sewers; and 48 pumping plants.

3.12.2.2.1 Treatment

The Terminal Island Water Reclamation Plant (TIWRP) is located at 455 Ferry Street and treats wastewater for the communities of Wilmington, San Pedro, a portion of Harbor City, and the heavily industrialized Terminal Island (LA Sewers 2011). The TIWRP provides pretreatment, primary sedimentation, secondary treatment, tertiary treatment (filtration), advanced treatment (microfiltration and reverse osmosis), sludge digestion, and drying. The TIWRP treats all flow received to at least first-stage tertiary levels. Some wastewater is further treated for reuse in irrigation and industrial water supplies. The liquid effluent flows to the Outer Harbor to a point approximately 3,000 feet off shore via a 60-inch diameter outfall. The TIWRP is designed to treat 30 million gallons per day (mgd). Currently, the plant is processing at approximately 57% capacity, treating between 16 and 17 mgd. (BOS 2004; City of Los Angeles Stormwater Program 2011).

3.12.2.2.2 Conveyance Infrastructure

According to the Sewer Capacity Study (Appendix F) prepared for the proposed Project, several functioning sewer lines exist in and around the proposed project area and are currently being used by the existing development. The proposed project area is served by two existing 8-inch lines on Signal Street and Signal Street Right-of-Way (RW). There are also two pump stations located within the vicinity of the proposed Project: Signal Pumping Plant and the 22nd and Signal Pumping Plant. The Signal Pumping Plant is located within the proposed project boundaries along Signal Street between the Westway Terminal and Berth 58. The 22nd and Signal Pumping Plant is located just outside the proposed project boundaries at the intersection of 22nd Street and Signal Street.

The sewage from both 8-inch lines feed into the Signal Pumping Plant on Signal Street. The sewage then continues north into the 22ndand Signal Pumping Plant on Signal Street before discharging into a 33-inch sewer line on Beacon Street. Sewage flow from the proposed project area is ultimately conveyed to the TIWRP. According to the specifications of the 22nd and Signal Pumping Planted detailed in Appendix F, during peak flows the maximum capacity of this pumping plant is

reached. The wastewater generated by existing uses in the study area is estimated to be 3,872 gpd. Table 3.12-2 lists existing (estimated) wastewater generated on site.

Table 3.12-2. Existing Wastewater Generation in the Study Area (Estimated)

Location	*Existing Land Use*	*General Land Use*	*Area (gsf)* [a]	*Wastewater Generation Rate* [b]	*Gallons per Day*	*Gallons per Year*
Berth 56	Vacant land	Vacant, barren lot	28,314	0	0	0
Berth 57	Transit Shed	Warehouse	46,000	20 gpd/1,000 gsf	920	335,800
Berths 58–60	Transit Shed (Vacant)	Warehouse (Vacant)	180,000	0	0	0
Berth 260	SCMI Office	Office	19,000	150 gpd/1000 gsf	2,850	1,040,250
Berth 260	SCMI Ancillary Uses	Storage/Workshop	5,100	20 gpd/1,000 gsf	102	37,230
				Total Wastewater	**3,872**	**1,413,280**

[a] gsf = gross square feet

[b] Based on the wastewater generation rates per the Sewer Capacity Study (Appendix F).

Compiled by ICF 2011.

3.12.2.3 Storm Drainage

Storm drains are located throughout the proposed project area and are maintained by LAHD, the City, and Los Angeles County. Storm drains within the proposed project vicinity have sufficient capacity to accommodate current demands and are designed to accommodate 10-year storm events. As development occurs, upgrades to the existing storm drainage are made as needed to accommodate the stormwater discharge requirements of the development project in compliance with the local stormwater ordinances. The local ordinances are prepared in compliance with the Municipal Stormwater NPDES Permit and often implemented through a SUSMP. These regulations are described in Section 3.12.3.1.6 below.

3.12.2.4 Solid Waste

Existing development in the proposed project area generates solid waste consisting of nonhazardous materials (e.g., food and beverage containers, paper products, and other miscellaneous personal trash) and hazardous materials (e.g., storage tank residue), although with the removal of the Westway Terminal liquid bulk storage tanks,[1] oil tank residue and waste from the proposed project site would be substantially reduced. All solid waste generated by existing development must comply with federal, state, and local regulations and codes pertaining to nonhazardous and hazardous solid waste disposal.

[1] The Westway Terminal is no longer operational. Removal of the Westway Terminal's tanks was approved under the 2009 SPW EIR/EIS and is not a feature of the proposed Project.

The BOS, in general, and Browning Ferris Industries (BFI, a private waste management service) provide solid waste collection and disposal services for the proposed project area currently. However, private waste haulers, such as BFI, would vary depending on the individual tenant's choice over time. Most of the nonhazardous solid waste generated within the proposed project area is disposed of at the Sunshine Canyon City/County Landfill, located at 14747 San Fernando Road in Sylmar, California. Sunshine Canyon is owned by BFI and has a maximum allotted throughput of 12,100 tons per day. Sunshine Canyon has a remaining capacity of 112,300,000cubic yards and an operation cease date of December 31, 2037 (CalRecycle 2011a).

Los Angeles County Ordinance 7A prohibits solid waste generated in the City of Los Angeles from being handled by or disposed of in facilities and landfills operated by the LACSD. Therefore, the proposed Project would not be permitted to dispose of solid waste at any LACSD facility including: the Calabasas Landfill, Puente Hills Landfill, Scholl Canyon Landfill, and the Puente Hills Intermodal Facility.

There are two transfer stations that serve the proposed project area: the Falcon Refuse Center in the Wilmington Community and the Southeast Resource Recovery Facility in the City of Long Beach. The Falcon Refuse Center is operated by Allied Waste Transfer Services of California and receives an average of 1,850 tons per day. The permitted capacity of this facility is 3,500 tons per day. The center accepts solid waste from construction and demolition activities, as well as industrial and mixed-municipal sources (CalRecycle 2011b).

The Southeast Resource Recovery Facility (SERRF) is located in the City of Long Beach, west of the Terminal Island Freeway, just north of Ocean Boulevard at 120 Pier S Avenue. The facility is owned by a separate authority created by a joint powers agreement between the Sanitation Districts and the City of Long Beach, but is operated under contract by a private company. The site is not open to the public and only pre-approved and pre-registered licensed waste haulers may use the facility. The facility accepts only nonhazardous municipal solid waste. Currently the maximum daily permitted tonnage is 1,380 tons per day. The average daily tonnage being accepted is 1,290 tons per day (LACSD 2011a, 2011b).

In 2010, the Port alone disposed of approximately 11,803 tons of waste and diverted approximately 22,158 tons, achieving a diversion rate of 54.5%. The waste reduction and recycling assessments in 2009–2010 showed that the tenants audited disposed of 22,735 tons and diverted 55,818 tons, for an overall diversion rate of 68.0% (Garrett pers. comm .). Currently, the City has a recycle diversion rate of 65%, with a goal of 70% by 2013 and a zero waste goal (90% or greater diversion) by 2025 (Pereira pers. comm. 2011).

LAHD's Construction and Maintenance Division recycles asphalt and concrete demolition debris by crushing and stockpiling the crushed material to use on other Port projects. Additionally, LAHD recycles and diverts ferrous metals and inert materials. LAHD's diversion rates vary from year to year largely due to fluctuations in construction project waste, which is heavily recycled. In 2010, LAHD's diversion rate for construction and development was 99.1%, or 60,166 tons (Garrett pers. comm.). The combined waste diversion from Port programs and construction is

96.3%. The following programs are implemented by LAHD to assist in waste diversion:

- 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
- Cardboard Recycling Program
- Scrap Metal
- Beverage Container Recycling
- Fish Sludge Recovery
- Wood Waste Collection Program
- Non-Food Donation
- Office Furniture Source Reduction

Hazardous materials generated by tenants are disposed or recycled as appropriate. The only Class I landfill operating in Southern California is the Kettleman Hills facility in Kings County. The facility has a maximum permitted capacity of 10,700,000 cubic yards with a remaining capacity of 6,000,000 cubic yards. The landfill has maximum allotted throughput of 8,000 tons per day (CalRecycle 2011c).

The estimated solid waste generated by existing uses in the study area totals 4.91 tons per day (1,791.16 tons per year). Table 3.12-3 lists existing (estimated) solid waste generation on site.

Table 3.12-3. Existing Solid Waste Generation in the Study Area (Estimated)

Location	*Existing Land Use*	*General Land Use*	*Building Area (gsf)*	*Solid Waste Generation Factor Used to Estimate Pounds per Day*[a]	*Tons per Day*	*Tons per Year*
Berth 56	Vacant land	Vacant, barren lot	28,314	Assume 0	0	0
Berth 57	Transit Shed	Warehouse	46,000	30.62 tons/1,000 gsf/year	3.86	1,408.52
Berths 58–60	Transit Shed (Vacant)	Warehouse	180,000	Assume 0	0	0
Berth 260	SCMI Office	Office	19,000	11.92 tons/1,000 gsf/year	0.62	226.48
Berth 260	SCMI Ancillary Uses	Storage/Workshop	5,100	30.62 tons/1,000 gsf/year	0.43	156.16
				Total Solid Waste	**4.91**	**1,791.16**

[a] Solid waste disposal rates based on California Emissions Estimator Model (CalEEMod) User's Guide Appendix, Table 10.1, for Climate Zone 11, based on CalRecycle data

3.12.2.5 Electrical Service

The proposed project site is located within the service area of LADWP, which maintains various generating and distribution substations throughout the greater Los Angeles area, including generating and distribution centers within and near the Port. LADWP supplies electricity generated by its system of resources, which include a mix of renewable energy; hydro, gas-fired, coal-fired, and nuclear generation; and purchases from others in the west.

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. Several other electrical power cables are distributed throughout the harbor area. LADWP maintains the Harbor Generating Station at the intersection of Island Avenue and Harry Bridges Boulevard. Receiving Station Q and numerous above- and below-ground electrical transmission lines are located in the proposed project area. Overall, LADWP supplies more than 22 million kilowatt (kW) hours of electricity a year to the City's 1.4 million electric customers (LADWP 2011b).

LADWP has adequate generation to serve the current customer load. LADWP has produced its IRP, which anticipates load growth and includes plans for new generating capacity or demand side management programs to meet load requirements for future customers. The effect of the recent recession depressed electricity consumption by approximately 4% in 2009 and 2010. However, the construction, real estate, retail, and leisure sectors are expected to recover as the economy expands. The electricity consumption within LADWP's service territory is predicted to continue to decline slowly over the next few years by another 0.6% and then increase slightly in 2012–2013. The growth in annual peak demand over the next 20 years is estimated to be about 1.3%, or approximately 100 megawatts (MW) per year. Currently, LADWP has a total generating capacity of about 7,125 MW per day to serve a peak Los Angeles demand of about 6,142 MW (LADWP 2010c). As discussed in the San Pedro Waterfront EIS/EIR, through the IRP and LADWP's current generating capacity, LADWP has adequate generation to serve the current customer load (Holloway pers. comm. 2007).

The estimated electricity consumption by existing uses in the study area that would be altered, removed, or otherwise affected under the proposed Project totals 1,505 kilowatt hours (kWh) per day (549,307 kWh per year). Table 3.12-4 lists existing (estimated) electricity consumption on site.

Table 3.12-4. Existing Electricity Consumption in the Study Area (Estimated)

Location	*Existing Land Use*	*General Land Use*	*Building Square Footage*	*Consumption Factor Used to Estimate[a] (kWh/gsf/year)*	*Electricity Consumption (kWh/day)*	*Electricity Consumption (kWh/year)*
Berth 56	Vacant land	Vacant, barren lot	28,314	0	0	0
Berth 57	Transit Shed	Warehouse	46,000	4.57	576	210,220

Location	*Existing Land Use*	*General Land Use*	*Building Square Footage*	*Consumption Factor Used to Estimate[a] (kWh/gsf/year)*	*Electricity Consumption (kWh/day)*	*Electricity Consumption (kWh/year)*
Berths 58–60	Transit Shed (Vacant)	Warehouse (Vacant)	180,000	0	0	0
Berth 260	SCMI Office	Office	19,000	16.62	865	315,780
Berth 260	SCMI Ancillary Uses	Storage/Workshop	5,100	4.57	64	23,307
				Total Electricity Use	**1,505**	**549,307**

[a] Electricity consumption factor for Parking Lot, Commercial/General Office Building, Warehouse/Unrefrigerated Warehouse – No Rail, and Industrial/General Light Industry uses from California Emissions Estimator Model (Environ 2011).

3.12.2.6 Natural Gas Service

Natural gas service to the proposed project site is supplied by SCGC via a 2-inch gas line located under Signal Street. As a public utility, SCGC is under the jurisdiction of the California Public Utilities Commission (CPUC) and can be affected by actions of federal regulatory agencies. California's natural gas demand, in general, is expected to grow at a rate of 0.07% per year from 2010 to 2030. This forecast considers a combination of moderate growth in the residential, core commercial, and electric generation markets, tempered by the declining demand in the noncore commercial and industrial markets. Demand in the core commercial market is expected to grow at an annual rate of 0.22%; whereas demand in the industrial noncore sector is estimated to decline by -0.58% annually as California continues to transition from a manufacturing-based to a service-based economy (California Gas and Electric Utilities 2010).

California's existing gas supply is regionally diverse (the southwestern United States, the Rocky Mountains, and Canada) and includes supplies from on- and offshore sources. Additionally, in 2008 the Energia Costa Azul Liquefied Natural Gas (LNG) receiving terminal in Baja California became another source of supply for California. This proposed Project has the potential to re-gasify 1billion cubic feet a day of LNG. There remains some uncertainty about the volume of LNG supplies that will be delivered to California from the Costa Azul terminal in the coming year, but it is likely that these will begin to play a more significant role in serving demand in the Southern California area (California Gas and Electric Utilities 2010).

The gas demand projections for Southern California are determined in large part by the long-term economic outlook for SCGC's service territory. As of mid-2010, Southern California's economy seemed to be bottoming out of its most severe slump since the 1930s. After peaking in 2007, area employment shrank in 2008, plummeted in 2009, dropped further in 2010, and is expected to rise in 2011. Since 2007, SCGC's service area has been overwhelmed in a serious housing slump. As a result, SCGC projects gas demand for all its market sectors to contract at an annual average

rate of approximately 0.212% from 2010 to 2030. Demand is expected to be virtually flat for the next 21 years because of modest economic growth, CPUC-mandated demand-side management and renewable electricity goals, decline in commercial and industrial demand, continued increased use of non-utility pipeline systems by enhanced oil recovery customers, and savings linked to advanced metering modules. The 2010 California Gas Report predicts the total capacity available to remain constant at 3,875 million cubic feet per day (MMcf/day) through 2030. The report also estimates the total annual gas supply taken to be 2,733 MMcf/day in 2015 and 2,661 MMcf/day in 2030 (California Gas and Electric Utilities 2010).

The estimated natural gas consumption by existing uses in the proposed project area that would be altered, removed, or otherwise affected under the proposed Project totals 769 thousand British thermal units (kBtu) per day (280,764 kBtu per year). Table 3.12-5 lists existing (estimated) gas consumption on site.

Table 3.12-5. Existing Natural Gas Consumption in the Study Area (Estimated)

Location	*Existing Land Use*	*General Land Use*	*Building Square Footage*	*Consumption Factor Used to Estimate[a] (kBtu/gsf/yr)[b]*	*Natural Gas Consumption (kBtu/day)*	*Natural Gas Consumption (kBtu/year)*
Berth 56	Vacant land	Vacant, barren lot	28,314	0	0	0
Berth 57	Transit Shed	Warehouse	46,000	1.04	131	47,840
Berths 58–60	Transit Shed (Vacant)	Warehouse (Vacant)	180,000	0	0	0
Berth 260	SCMI Office	Office	19,000	11.98	624	227,620
Berth 260	SCMI Ancillary Uses	Storage/Worksh op	37,500	1.04	14.5	5,304
				TOTAL	**769**	**280,764**

Notes:
[a] Natural gas consumption factor for Parking Lot, Commercial/General Office Building, Warehouse/Unrefrigerated Warehouse-No Rail and Industrial/General Light Industry uses from California Emissions Estimator Model (Environ 2011).
[b] kBtu = 1,000 British thermal units.

3.12.3 Applicable Regulations

3.12.3.1 State Regulations

3.12.3.1.1 SB 610 Water Supply Assessment

SB 610(Chapter 643, Statues of 2001) amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 seeks to promote more collaborative planning between local water suppliers and cities and counties. The statute requires detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects. The statute also requires this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. The measure recognizes local control and decision making regarding the availability of water for projects and the approval of projects.

Under SB 610, waster assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912[a]) subject to the California Environmental Quality Act. Per the California Water Code section 10912 [a], a "project" means any of the following:

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project (approximately 127,650 gpd[2]).

[2] Based on the wastewater generation rates from the City of Los Angeles CEQA Thresholds for 3-bedroom duplex/townhome/single-family residential (230 gallons per day), factored at 111% of the wastewater generation rate.

3.12.3.1.2 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. LADWP would be the water supplier, and as such the proposed Project would be under the jurisdiction of the LADWP UWMP, prepared pursuant to the California Urban Water Management Planning Act.

3.12.3.1.3 AB 1327: California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) was enacted on October 11, 1991 and added Chapter 18 to Part 3 of Division of the Public Resources Code. It 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. AB 1327 regulations govern the transfer, receipt, storage, and loading of recyclable materials at the Port.

3.12.3.1.4 AB 939: California Integrated Waste Management Act

The State of California requires that all jurisdictions achieve compliance with AB 939 (Public Resources Code Sections 40000 et seq.), a state mandate that requires reaching 50% diversion of solid waste from landfills by 2000. AB 939 further requires each city to conduct a Solid Waste Generation Study and to annually prepare a Source Reduction and Recycling Element (SRRE) to describe how it will reach its goals. AB 939 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% of all solid waste from landfills and transformation facilities by 1995, and 50% by 2000. The City of Los Angeles met and exceeded the year 2000 goals; in 2011, the City's diversion rate was 65% (Pereira pers. comm. 2011).

3.12.3.1.5 California's Building Code 24 CCR 6

Title 24, Part 6 of the CBC describes California's energy efficiency 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, alterations, and, in nonresidential buildings, repairs.

3.12.3.1.6 Standard Urban Stormwater Mitigation Plan

On December 13, 2001, the RWQCB issued a Municipal Storm Water NPDES Permit (CAS004001) that requires new development and redevelopment projects to incorporate stormwater mitigation measures. This permit was amended on April 14, 2011. In compliance with the permit, permittees have implemented a stormwater quality management program (SQMP) with the ultimate goals of accomplishing the requirements of the permit and reducing the amount of pollutants in stormwater and urban runoff. The SQMP is broken up into six separate programs, one of which is the Development Planning Program.

A Standard Urban Stormwater Mitigation Plan (SUSMP) is one specific requirement of the Development Planning Program. It is generally required to reduce the quantity and improve the quality of rainfall runoff that leaves a site. Developers are encouraged to begin work on complying with these mandatory regulations by consulting with the RWQCB Watershed Protection Division (WPD) in the design phase of their projects.

3.12.3.2 Regional and Local Regulations

3.12.3.2.1 LADWP Urban Water Management Plan

Consistent with the California Urban Water Management Planning Act, LADWP has prepared a UWMP to describe how water resources are used and to present strategies that will be used to meet the City's current and future water needs. To meet the objectives of the California Urban Water Management Planning Act, the LADWP UWMP focuses primarily on water supply reliability and water use efficiency measures. The California Urban Water Management Planning Act requires water suppliers to develop water management plans every 5years. LADWP most recently completed this 5-year update in 2010. This plan, the *2010 Urban Water Management Plan*, was completed as an update to the previous 2005 UWMP. LADWP also published annual fiscal year updates in the 2010 UWMP. The plan projects water demand and supplies through 2035; total demand for water is predicted to be 675,604 acre-feet in 2025 and 710,760 acre-feet in 2035 with passive water conservation, and 632,275 acre-feet in 2025 and 641,622 acre-feet in 2035 with passive and active water conservation. LADWP expects it will be able meet this demand with a combination of existing supplies, planned supplies, and MWD purchases (existing and planned) (LADWP 2010a).

3.12.3.2.2 City of Los Angeles Low Impact Development (LID) Ordinance (Ordinance 181899)

The LID Ordinance became effective in November 2011 and amends and expands on the existing SUSMP requirements (which have been in effect since 2002) by incorporating LID practices & principles and expanding the applicable development categories. This ordinance requires all development /redevelopment to capture and manage 100% of the first 0.75-inch storm event onsite. This may be achieved by

implementing onsite infiltration, capture and use, and bio-filtration/bio-treatment BMPs to the maximum extent feasible. The concept of LID is consistent with the recommendations and strategies identified in the IRP, Water Quality Compliance Master Plan (WQCMP), all of the City's watershed specific TMDL Implementation Plans, the Department of Water and Power's Water Supply Action Plan, and the Los Angeles River Revitalization Plan. The Ordinance includes offsite mitigation as a potential alternative to achieve compliance. LID requirements will become operative May 12, 2012 (180 days from adoption).

3.12.3.2.3 City of Los Angeles Emergency Water Conservation Plan (Ordinance No. 181288)

An ordinance amending Chapter XII, Article I of the Los Angeles Municipal Code to clarify prohibited uses and modify certain water conservation requirements of the Water Conservation Plan of the City of Los Angeles was adopted in August 2010. The purpose of the Ordinance is to provide a mandatory water conservation plan to minimize the effect of a shortage of water on the customers of the City and to adopt provisions that will significantly reduce the consumption of water over an extended period of time, thereby extending the available water required for the customers of the City while reducing the hardship of the City and the general public to the greatest extent possible. The revised Water Conservation Ordinance contains five water conservation "phases," which correspond to severity of water shortage, with each increase in phase containing more stringent conservation measures. Phase II is currently in effect. Water conservation phases define outdoor watering restrictions as appropriate, including sprinkler use restrictions and other prohibited water uses.

3.12.3.2.4 Wastewater Facilities Plan/Integrated Resources Plan

The Federal Clean Water Act (See Section 3.13, "Water Quality, Sediments, and Oceanography") requires publicly owned sewage treatment works to prepare and periodically update wastewater facilities plan. The City prepared its first wastewater facilities plan in 1982 and updated it in 1991. Then in 2006 the City adopted the IRP, which incorporates a future vision of water, wastewater, and runoff management that explicitly recognizes the complex relationships that exist among all the City's water resources activities and functions. The basic goal of the plan is to integrate water supply, water conservation, water recycling, and runoff management issues with wastewater facilities planning through a regional watershed approach.

3.12.3.2.5 Industrial Waste Control Ordinance

The Industrial Waste Management Division, of the BOS was established to protect the local receiving waters by regulating industrial wastewater discharge to the City's sewer system and by administering and enforcing the Industrial Waste Control Ordinance (Los Angeles Municipal Code Section 64.30) as well as federal EPA pretreatment regulations.

Industrial facilities and certain commercial facilities which plan to discharge industrial wastewater to the City's sewage collection and treatment system are required to first obtain an industrial wastewater permit. Permits are issued when a determination has been made by the Board of Public Works for the City of Los Angeles that the wastewater to be discharged will not violate any provisions of the ordinance, the Board's Rules and Regulations, the water quality objectives for receiving waters established by the California Water Quality Control Board, Los Angeles Region, or an applicable federal or state statutes, rules or regulations.

3.12.3.2.6 City of Los Angeles Solid Waste Management Policy Plan

The CiSWMPP is a long-term planning document adopted by the City Council in November 1994 containing goals, objectives, and policies for solid waste management for the City. It specifies Citywide diversion goals and disposal capacity needs. The mandate was enacted to encourage reduction, recycling, and reuse of solid waste generated in the state to preserve landfill capacity, conserve water, energy, and other natural resources, and to protect the state's environment (City of Los Angeles 2006).

3.12.3.2.7 Port of Los Angeles Sustainability Plan

The development of the Port of Los Angeles Sustainability Plan is in response to the Mayoral-initialized Executive Directive No. 10, "Sustainable Practices in the City of Los Angeles," passed in June 2007. "This directive sets forth his vision to transform Los Angeles into the most sustainable large city in the country and includes goals in the areas of energy and water, procurement, contracting, waste diversion, non-toxic product selection, air quality, training, and public outreach" (LAHD 2008). There are 32current LAHD environmental programs that already meet, in varying degrees, all the goals of Executive Directive No. 10. However, there are identified areas of improvement, specifically in the areas of employee training and public outreach. Development of the Port of Los Angeles Sustainability Plan is still in progress.

3.12.3.2.8 Green Building Policy

On August 27, 2003, the Board of Harbor Commissioners approved the LAHD Environmental Management Policy, which includes guidelines on implementation of LEED certification and standards for new and existing building construction and/or renovation.

The LEED Green Building Rating System is voluntary, consensus-based, and market-driven, and is based on existing, proven technology that evaluates environmental performance in five categories:

- sustainable site planning,
- improving energy efficiency,
- conserving materials and resources,

- embracing indoor environmental quality, and
- safeguarding water.

Points are earned for goals accomplished in each category, and the certification level for a building is determined by the total number of points (100 base points). There are four LEED certification levels: Certified (40–49 points), Silver (50–59 points), Gold (60–79 points), and Platinum (80–100 points).

The City has adopted the policy that all new City buildings of 7,500 square feet or more should be designed, whenever possible, to meet the LEED Certified level. LAHD has taken this policy further, and under the jurisdiction of the Harbor Department, all construction must meet the following:

- new construction (i.e., office buildings) 7,500 square feet or greater, without compromising functionality, will be designed to a minimum level of LEED NC Gold;
- new construction (i.e., marine utilitarian buildings such as equipment maintenance), without compromising functionality, will be designed to a minimum level of LEED NC Silver;
- existing buildings of 7,500 square feet or greater will be inventoried as evaluated for their applicability to the LEED Existing Building Standards. Priority for certification will be determined by building operation and maintenance procedures;
- all other buildings will be designed or constructed to meet the highest achievable LEED standard to the extent feasible for the building's purpose;
- all Port buildings will include solar power to the maximum extent feasible, as well as incorporation of the best available technology for energy and water efficiency; and
- a sustainability staff has been created to continuously evaluate and advance LAHD's sustainability practices, as well as develop green guidelines and sustainable strategies.

3.12.4 Impact Analysis

3.12.4.1 Methodology

Assessment of the proposed Project's impacts on utilities (water, wastewater, solid waste) and energy providers (electricity and natural gas) varies depending on the utility but generally includes a comparison of the proposed project-generated demand against existing and anticipated resource supplies and/or conveyance and storage capacities. Quantifications of demands and generations were included based on factors provided by the applicable agencies, as shown in Tables 3.12-1 through 3.12-5.

3.12.4.1.1 Water Supply

Water supply or conveyance impacts are typically evaluated by estimating water consumption factors associated with proposed project site land uses or, for nonresidential development, unit demand factors per acre or gross square foot, as established by the City (*L.A. CEQA Thresholds Guide 2006*:M.1-4). Table 3.12-6 shows the water demand that would be generated from the proposed Project.

In accordance with LAHD's commitment to reduce and conserve the amount of water used in the proposed project area, infrastructure would be incorporated to support the use of reclaimed water for landscaping purposes. Therefore, the proposed Project would use recycled water provided by the LADWP when the service is made available to the area. Furthermore, the proposed research facilities at Berths 57-60 and the wave tank proposed at Berth 70-71 would use a seawater system with intake from the harbor and would not use potable or recycled (purple pipe) water.

Table 3.12-6. Water Demand for the Proposed Project (Estimated)

Location	*Proposed Project Designated Land Use*	*General Land Use*	*Area (gsf)*	*Water Consumption Rate*[a]	*Gallons per Day*	*Gallons per Year*
Berth 56	Learning Center	School	11,500	222 gpd/1,000 gsf	2,553	931,845
Berth 57	Office-Related Space	Office	12,000	166.5 gpd/1,000 gsf	1,998	729,270
	Laboratory-Related Space	Research & Development	34,500[b]	111gpd/1,000 gsf	3,830	1,397,768
	Outdoor Space	Public Plaza/Recreation	8,200	0	0	0
	Public Interpretive Center	Office	3,600	166.5 gpd/1,000 gsf	599	218,781
	Public Plaza	Recreation	7,500	0	0	0
	Floating Docks	Recreation	18,500	0	0	0
Berths 58–60	Office-Related Space	Office	70,000	166.5 gpd/1,000 gsf	11,655	4,254,075
	Laboratory-Related Space	Research & Development	110,000[b]	111gpd/1,000 gsf	12,210	4,456,650
	Outdoor Space	Warehouse	16,400	22.2 gpd/1,000 gsf	364	132,889.20
	Public Plaza	Recreation	6,000	0	0	0
	Waterfront Café	Restaurant	1,000	333 gpd/1,000 gsf	333	121,545.00
Berths 70–71	NOAA Administration & Research Facility	Office	50,000	166.5 gpd/1000 gsf	8,325	3,038,625
	Wave Tank	Office/Laboratory	20,000[c]	166.5 gpd/1,000 gsf[b]	3,330	1,215,450
				Total	**45,197**	**16,496,898**

Notes:

[a] Based on the wastewater generation rates from the proposed Project Sewer Capacity Study (BOS 2012), factored at 111% of the wastewater generation rate

[b] Conservative estimate since laboratory space includes use of seawater systems.

[c] Based on 20,000 gsf of office use; 80,000 gsf laboratory portion of the wave tank area to use seawater only

3.12.4.1.2 Wastewater

Assessment of impacts on sewers or wastewater treatment systems generally includes the comparison of the project-related, land use–based wastewater flow generation to the existing and projected wastewater treatment capacity of the treatment plant. The wastewater generation factors are based on rates in the Sewer Capacity Study (Appendix F) prepared for the proposed Project and assumes all indoor water use is treated as wastewater. Additionally, the Sewer Capacity Study accounts for the discharge of seawater from the seawater circulation system and wave tank to be discharged to the local collection system. Since the exact seawater system(s), life support, and treatment systems to be utilized for the proposed Project are currently unknown, conservative intake and discharge estimates for each type of seawater system are included to ensure potential impacts of both potential marine research facility seawater systems are evaluated and addressed.

Elements of the proposed Project have been revised since the preparation of the Sewer Capacity Study and the estimated proposed project wastewater generation has been reduced. The Sewer Capacity Study is assumed to account for a conservative worst-case scenario and states that if the proposed Project discharge flows prolong the peak hours of the 22nd and Signal Pump Station, the proposed Project may be required to upgrade the pump capacity or regulate the discharge so as not to strain the operation of the sewer system. Final approval for sewer capacity and connection has not yet been provided. However, should the proposed Project be required to upgrade the pump capacity, this would be incorporated into proposed project design once the facility designs are further defined and would be located within the proposed project site and entail minor upgrades to the existing pump. Table 3.12-7 shows the total wastewater that would be generated under all conditions.

3.12.4.1.3 Storm Drainage Facilities

Storm drains within the proposed project vicinity have sufficient capacity to accommodate current demands and are designed to accommodate 10-year storm events. However, the ground improvements that are necessary to improve the existing sea wall will potentially damage the existing system (which runs under the transit sheds at Berth 57 and Berths 58-60). Therefore, new storm drain improvements are likely necessary on the land side of the buildings (from the sea wall back toward signal street) (Fredricks pers. comm. 2011). The proposed Project would include any required installation and expansion of stormwater drainage facilities necessary to accommodate any stormwater runoff. Furthermore, since the proposed Project would redevelop the existing setting, the proposed Project would also include design elements for capturing stormwater for reuse, as well as permeable paving and bio-swales in parking areas to reduce the stormwater drainage requirements of the proposed Project. Thus, storm drainage facilities will not be discussed further in this section. For additional details regarding the existing hydrology and storm drainage characteristics of the area, please refer to Section 3.13, "Water Quality, Sediments, and Oceanography."

3.12.4.1.4 Solid Waste

Impacts related to solid waste generally involve the estimation of the project-related, land use–based, solid waste generation compared to the capacity of the landfills serving the proposed project area. The solid waste generated under the baseline, proposed Project, was determined using generation factors based on the California Emissions Estimator Model (Environ 2011).

Table 3.12-7. Wastewater Generation from the Proposed Project (Estimated)

Location	*Proposed Project Designated Land Use*	*General Land Use*	*Area (gsf)*	*Wastewater Generation Rate*[a]	*Gallons per Day*	*Gallons per Year*
Berth 56	Learning Center	School	11,500	200 gpd/1,000 gsf	2,300	839,500
Berth 57	Office-Related Space	Office	12,000	150 gpd/1,000 gsf	1,800	657,000
	Laboratory-Related Space	Research & Development	34,500	100 gpd/1,000 gsf	3,450	1,259,250
	Outdoor Space	Public Plaza/Recreation	8,200	0	0	0
	Public Interpretive Center	Office	3,600	150 gpd/1,000 gsf	540	197,100
	Public Plaza	Recreation	7,500	0	0	0
	Floating Docks	Recreation	18,500	0	0	0
Berths 58–60	Office-Related Space	Office	70,000	150 gpd/1,000 gsf	10,500	3,832,500
	Laboratory-Related Space	Research & Development	110,000	100 gpd/1,000 gsf	11,000	4,015,000
	Outdoor Space	Warehouse	16,400	20 gpd/1,000 gsf	328	119,720.00
	Public Plaza	Recreation	6,000	0	0	0
	Waterfront Café	Restaurant	1,000	300 gpd/1,000 gsf	300	109,500
Berths 57–60	Seawater System[b]	--	--[c]	--	27,397	9,999,905
Berths 70–71	NOAA Administration & Research Facility	Office	50,000	100 gpd/1,000 gsf	5,000	1,825,000
	Wave Tank (Office)	Office	20,000	150 gpd/1,000 gsf	3,000	1,095,000
	Wave Tank (Seawater)	Laboratory	80,000	----[e]	----[e]	--[e]
				Total	**65,615**	**23,949,475**

Notes:

[a] Based on the wastewater generation rates per the Sewer Capacity Study (Appendix F). Note that the proposed Project gsf has been revised since the preparation of the sewer capacity study.

[b] As a worst-case scenario, assume a fully contained 100% recycling system and assume 100% sewer discharge.

[c] Aggregate Tank Volume of 1,000,000 gallons; assume a turnover rate of 10 times per year on a recirculating system.

[d] Based on 20,000 gsf of office use; 80,000 gsf laboratory portion of the wave tank area to use a flow through system.

[e] On rare occasions, water levels in the wave tank may need to be lowered for a specific study. Seawater may be discharged to the harbor or the sanitary sewer. Discharge volumes to the sanitary sewer would be controlled over several days or months to ensure both conveyance capacity and water treatment plant operations are not impacted, as would be required in the related Industrial Discharge permit issued by the City of Los Angeles Bureau of Sanitation.

Table 3.12-8. Solid Waste Generation from the Proposed Project (Estimated)

Location	*Proposed Project Designated Land Use*	*General Land Use*	*Building Area (gsf)*	*Solid Waste Generation Factor Used to Estimate Pounds per Day*[a]	*Tons per Day*	*Tons per Year*
Berth 56	Learning Center	School	11,500	4.86 tons/1,000 gsf/year	0.15	55.89
Berth 57	Office-Related Space	Office	12,000	11.92 tons/1,000 gsf/year	0.39	143.04
	Laboratory-Related Space	Research & Development	34,500	8.03 tons/1,000 gsf/year	0.76	277.04
	Outdoor Space	Public Plaza/ Recreation	8,200	4.86 tons/1,000 gsf/year	0.11	39.85
	Public Interpretive Center	Office	3,600	11.92 tons/1,000 gsf/year	0.12	42.91
	Public Plaza	Recreation	7,500	4.86 tons/1,000 gsf/year	0.10	36.45
	Floating Docks	Recreation	18,500	4.86 tons/1,000 gsf/year	0.25	89.91
Berths 58-60	Office-Related Space	Office	70,000	11.92 tons/1,000 gsf/year	2.29	834.40
	Laboratory-Related Space	Research & Development	110,000	8.03 tons/1,000 gsf/year	2.42	883.30
	Outdoor Space	Warehouse	16,400	30.62 tons/1,000 gsf/year	1.38	502.17
	Public Plaza	Recreation	6,000	4.86 tons/1,000 gsf/year	0.08	29.16
	Waterfront Café	Restaurant	1,000	3.0 tons/1,000 gsf/year	0.01	3.00
Berths 70-71	NOAA Administration & Research Facility	Office	50,000	11.92 tons/1,000 gsf/year	1.63	596.00
	Wave Tank	Office	20,000[b]	11.92 tons/1,000 gsf/year[c]	0.65	238.40
				Total	**10.33**	**3,771.52**

[a] Solid waste disposal rates based on California Emissions Estimator Model (CalEEMod) User's Guide Appendix, Table 10.1, for Climate Zone 11, based on CalRecycle data.

[b] Only 20,000 gsf of office use in the wave tank area.

[c] Based on 20,000 gsf of office use; 80,000 gsf laboratory portion of the wave tank area to use seawater only.

3.12.4.1.5 Energy

The determination of impacts on electricity and natural gas supplies depends on an estimation of demand generated by the proposed project uses compared to availability and capacity of existing supplies and the conveyance infrastructure. The electricity and natural gas consumption rates are based on energy use rates in the *California Emissions Estimator Model (CalEEMod) User's Guide Appendix*.

Table 3.12-9 shows the electricity consumption for the proposed Project, and Table 3.12-10 shows the natural gas consumption.

Table 3.12-9. Electricity Consumption of the Proposed Project (Estimated)

Location	*Proposed Project Designated Land Use*	*General Land Use*	*Area (gsf)*	*Consumption Factor Used to Estimate (kWh/gsf/year)*[a]	*Electricity Consumption (kWh/day)*	*Electricity Consumption (kWh/year)*
Berth 56	Learning Center	School	11,500	7.08	223	81,420
Berth 57	Office-Related Space	Office	12,000	16.62	546	199,440
	Laboratory-Related Space	Research & Development	34,500	12.54	1,185	432,630
	Outdoor Space	Public Plaza/ Recreation	8,200	0	0	0
	Public Interpretive Center	Recreation	3,600	0	0	0
	Public Plaza	Recreation	7,500	0	0	0
	Floating Docks	Recreation	18,500	0	0	0
Berths 58-60	Office-Related Space	Office	70,000	16.62	3,187	1,163,400
	Laboratory-Related Space	Research & Development	110,000	12.54	3,779	1,379,400
	Outdoor Space	Warehouse	16,400	4.57	205	74,948
	Public Plaza	Recreation	6,000	0	0	0
	Waterfront Café	Restaurant	1,000	12.54	34	12,540
Berths 57-60	Seawater System	--	--[b]	--	25,150[c]	9,179,750
Berths 70-71	NOAA Administration & Research Facility	Office	50,000	16.62	2,277	831,000
	Wave Tank (Office)	Office	20,000	16.62	911	332,400
	Wave Tank (Laboratory)	Labor	80,000	12.54	2,748	1,003,200
				Total	**40,411**	**14,749,960**

Notes:

[a] Electricity and natural gas consumption based on energy use rates in the California Emissions Estimator Model (CalEEMod) User's Guide Appendix, Table 9.1, for Climate Zone 11, as taken from the California Energy Commission report (http://www.energy.ca.gov/ceus/)

[b] Aggregate Tank Volume of 1,000,000 gallons; assume a turnover rate of 10 times per year on a recirculating system.

[c] Energy consumption estimate based on operation of a cooling tower, chiller, boiler,185 Jacuzzi pumps (1 hp each), 90 fiberglass pumps (10 hp each), and 4 circulation pumps

(50 hp each) operating at a constant 1/3 load. The 2 circulation pumps for wave tank would only run a few hours per year and therefore the energy requirement is negligible and not included in the daily and annual consumption estimates.

Table 3.12-10. Natural Gas Consumption of the Proposed Project (Estimated)

Location	*Proposed Project Designated Land Use*	*General Land Use*	*Area (gsf)*	*Consumption Factor Used to Estimate (kBtu/gsf/year)*[a]	*Natural Gas Consumption (kBtu/day)*	*Natural Gas Consumption (kBtu/year)*
Berth 56	Learning Center	School	11,500	11.79	371	135,585
Berth 57	Office-Related Space	Office	12,000	11.98	394	143,760
	Laboratory-Related Space	Research & Development	34,500	19.80	1,872	683,100
	Outdoor Space	Public Plaza/ Recreation	8,200	0.0	0	0
	Public Interpretive Center	Recreation	3,600	0.0	0	0
	Public Plaza	Recreation	7,500	0.0	0	0
	Floating Docks	Recreation	18,500	0.0	0	0
Berths 58-60	Office-Related Space	Office	70,000	11.98	2,298	838,600
	Laboratory-Related Space	Research & Development	110,000	19.80	5,967	2,178,000
	Outdoor Space	Warehouse	16,400	1.04	47	17,056
	Public Plaza	Recreation	6,000	0.0	0	0
	Waterfront Café	Restaurant	1,000	0.0	0	0
Berths 57-60	Seawater System	--	--	--	325,479	118,799,835
Berths 70-71	NOAA Administration & Research Facility	Office	50,000	11.98	1,641	599,000
	Wave Tank	Office/Laboratory	100,000[b]	11.98	656	239,600
				Total	**338,843**	**123,677,664**

Location	*Proposed Project Designated Land Use*	*General Land Use*	*Area (gsf)*	*Consumption Factor Used to Estimate (kBtu/gsf/year)*[a]	*Natural Gas Consumption (kBtu/day)*	*Natural Gas Consumption (kBtu/year)*
Notes: [a] Electricity and natural gas consumption based on energy use rates in the California Emissions Estimator Model (CalEEMod) User's Guide Appendix, Table 9.1, for Climate Zone 11, as taken from the California Energy Commission report (http://www.energy.ca.gov/ceus/) [b] Only 20,000 gsf of office use in the wave tank area; no natural gas use is anticipated for laboratory space.						

Appendix F of the State CEQA Guidelines states that EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (see Appendix C of the State CEQA Guidelines for those regarding energy conservation). A discussion is provided in Impact UT-6 below.

3.12.4.2 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 utilities based on several underlying factors that can affect the need for additional infrastructure to maintain service.

The proposed Project would have a significant impact on public utilities if it would:

UT-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

UT-2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

UT-3: Not have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

UT-4: Not result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

UT-5: Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

UT-6: Require new, offsite energy supply and distribution infrastructure, or capacity-enhancing alterations to existing facilities that are not anticipated by adopted plans or programs.

The Initial Study determined that the proposed Project would have no impact for one of the thresholds of significance included in Appendix G of the State CEQA Guidelines. Accordingly, it is not discussed further in this document. The threshold is as follows:

- would the Project comply with federal, state, and local statutes and regulations related to solid waste?

3.12.4.3 Impacts and Mitigation

Impact UT-1: The proposed Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Discharge to the Sewer System

The existing proposed project site is currently connected to the sanitary sewer system. During construction, the proposed Project would be in the process of upgrading plumbing to the existing facilities as well as constructing new lines to the new buildings. Such activities could require temporary shutdown of the plumbing within the affected buildings as upgrades are implemented. During this time, use of the plumbing fixtures would not be possible. However, portable temporary facilities would be available for construction workers during this time. Such facilities would be hauled away and the waste disposed of in accordance with the RWCQB's regulations. Once operational, the proposed Project would be fully connected to the sanitary sewer system where wastewater would be processed and sanitized at the TIWRP.

As described under Section 3.12.2.2, "Wastewater," the TIWRP has additional capacity of between 13 and 14 mgd (approximately 43%) to process wastewater. Based on the generation rates provided in the Sewer Capacity Study (Appendix F) and subtracting the existing generation of 3,872 gpd that would be replaced by the proposed Project, the proposed Project would contribute approximately 61,743 gpd to the TIWRP's daily wastewater processing capacity, which constitutes approximately 0.005% (61,743 ÷ 13,000,000) of the TIWRP's available capacity.

Therefore, because the TIWRP operates in compliance with the RWQCB's requirements and has sufficient capacity to accommodate the proposed Project's wastewater generation, wastewater discharged into the sewer system would not exceed the requirements of the Los Angeles RWQCB.

Discharge to the Harbor

In addition, as with the existing condition, runoff water from the proposed project site would drain into the harbor. During demolition, grading, and construction activities, a SWPPP would be implemented to ensure discharge to the harbor would be minimized and that which would discharge to the harbor would be treated through BMP identified in the SWPPP. For more information on water quality during construction, see Section 3.13, "Water Quality, Sediments, and Oceanography," specifically the analysis provided under Impact WQ-4a.Construction water runoff to the harbor would not exceed the Los Angeles RWQCB's requirements and impacts would be less than significant.

Furthermore, during operation, if a 100% flow-through seawater system or a hybrid version of such a system is implemented, direct discharge to the harbor would occur. Should the seawater flow-through option (or a hybrid thereof) be selected over the

100% sewer discharge option, any discharge to the ocean would be tested and monitored to ensure the discharge is complaint with RWQCB regulations and does not cause the water body to exceed the permitted TMDLs. Non-compliance would result in penalties and, depending the degree of the violation, possible shut down of discharge operations. See Section 3.13, "Water Quality, Sediments, and Oceanography," for more detailed information. As a result of the treatment, testing and monitoring, construction and operational discharge to the harbor would not exceed the LARWQCB's requirements. Impacts would be less than significant.

Impact Determination

Discharge to the sanitary sewer would meet LARWQCB requirements as there is sufficient capacity at the TIWRP and discharge from the TIWRP to the ocean is already regulated by the LARWQCB. Discharge to the harbor during construction would be minimized by the implementation of a SWPPP and during operation by being treated, tested, and monitoring in compliance with LARWQCB requirements as described in Section 3.13, "Water Quality, Sediments, and Oceanography." Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact UT-2: The proposed Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Water Facilities

The proposed Project would result in a water demand of approximately 45,197gpd. This would be an increase of approximately 40,899 gpd from the baseline. As discussed in the Existing Conditions, a 12-inch water main currently aligns within Signal Street and services the existing uses within the proposed project site and. based on the projected water demand from the proposed Project the 12-inch line would be sufficient to convey all water for proposed project operations (Grossi pers. comm.). Since no improvements related to the expansion of existing water facilities would be anticipated and impacts would therefore be less than significant.

Wastewater Facilities

Under the worst-case scenario, the proposed Project would generate approximately 65,615 gpd of wastewater with the potential of all this wastewater (including

saltwater discharge) being discharge to the sanitary sewer and on to TIWRP. This scenario assumes a 100% re-circulating seawater system. Such a seawater system would contribute approximately 27,397 gpd or 42% of the total project contribution to the sewer system.

During peak flows, the maximum capacity of the 22nd and Signal Pump Station is reached. According to the Sewer Capacity Study (Appendix F), the proposed Project would not have any major impact on the local collection system provided no substantial dischargers connect ahead of the proposed Project. If the proposed project discharge flows prolong the peak hours of the pump station, the proposed Project may be required to upgrade the pump capacity or regulate the discharge rate so as to not strain the operation of the sewer system. The upgrade would consist of switching the current pump with a larger capacity pump. The new pump would be located within an underground vault within the Signal Street public right-of-way, which would be located within the proposed project site boundary. A final assessment of sewer capacity and connection permitting would be made by the BOS after final design and during the permit process phase.

Therefore, no new major utility lines or facilities would need to be constructed in the proposed project area. All infrastructure connections and improvements, including the pump upgrade, would: occur within existing or proposed city streets and right-of-ways; comply with the City's municipal code; and be performed under permit by the City Bureau of Engineering and/or LADWP.

Impact Determination

There is available capacity using the existing water and wastewater infrastructure during average demand. During prolonged peak hour flows, however, the 22nd and Signal Street Pump Station operates at maximum capacity. Implementation of the proposed upgrades at the 22nd and Signal Street Pump Station, as identified in the proposed Project's Sewer Capacity Study, would provide additional wastewater capacity which would alleviate capacity issues at times of prolonged peak flow. With implementation of water conservation and wastewater reduction measures required by City ordinances, LAHD Sustainable Design Guidelines, and RWQCB regulations, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact UT-3: The proposed Project would have sufficient water supplies available to serve the project from existing entitlements and resources, and would not require new or expanded entitlements.

For purposes of determining whether the proposed Project is a water demand project under SB 610, as described in Section 3.12.3.1.1, the proposed Project is considered an industrial park project with a total building square footage of 411,000 and employment of less than 1,000 persons. Additionally, the proposed Project would generate a demand of 45,197 gpd, which is less demand for water than an amount equivalent to, or greater than, the amount required by a 500 dwelling unit project (approximately 127,650 gpd). Consequently, the proposed Project is not considered a water demand project and a water supply assessment is not required.

During construction the proposed Project would use water for various purposes, such as dust suppression, mixing and pouring concrete, and other construction-related activities. Typically, the majority of water use during construction is associated with dust suppression during grading or trenching, which is generally performed by water trucks that use non-potable water from offsite sources. The additional water use would not be substantial, and no impact on water supply would occur.

Operation of the proposed Project would result in a water demand increase over baseline conditions of approximately 40,899 gpd. Further, water conservation technology and use of recycled water for irrigation are proposed project elements. This would represent less than 0.01% of the existing water demand and the projected water demand estimated in the UWMP for 2025 with passive water conservation. Given that the UWMP projects adequate supplies are available to meet projected demands in the City through 2035, and that the proposed Project would require a relatively small increase in water supply to the proposed project site, it is expected that water would be available for the proposed Project. Therefore, the proposed Project would not negatively impact future water supply such that new or expanded entitlements would be required.

Impact Determination

Impacts associated with demand on available water supplies would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact UT-4: The proposed Project would result in a determination by the wastewater provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

As discussed above under Impact UT-1, the proposed Project would not exceed wastewater treatment requirements of the RWQCB.

Proposed project activities would generate approximately 65,615gpd of wastewater, an increase of approximately 61,743 gpd from the baseline percentage going toward the TIWRP daily capacity. As discussed under Impact UT-2, because the TIWRP currently has 43% capacity and the addition of the proposed Project's wastewater generation would amount to 0.05% of this available capacity; the increased wastewater generated by the proposed Project would be easily accommodated. The proposed Project would not exceed the capacity of the TIWRP to accommodate anticipated increases and impacts would be less than significant.

Impact Determination

The proposed Project would not exceed the TIWRP wastewater facility capacity, and impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact UT-5: The proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Construction and demolition activities would generate debris that would require disposal in a landfill. Construction and demolition materials would include asphalt, concrete, building materials, and solids. In 2010, the LAHD has achieved a 99% diversion rate for construction debris. The proposed Project consists of new building construction and adaptive reuse of existing warehouses and reconstruction and repair of 2,500 linear feet of wharf. One 3,600-square-foot building at Berth 57 and one 19,000-square-foot building at Berth 270 are slated for demolition. Berth s70–71 demolition of Westway facilities was previously assessed, and no additional demolition would be required under the proposed Project. Street sections would be repaired and repaved, not reconstructed. Therefore, debris from demolition would be relatively small quantities. With implementation of the Port's Green Building Policy, construction recycling programs, and waste diversion strategies, impacts would be less than significant.

In the event that unidentified hazardous materials are encountered during proposed roadway improvements and/or proposed project construction, recycling options would be explored. However, if recycling is not an option, disposal of hazardous materials at a Class I landfill would be based on facility and hazardous material requirements. 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 offsite disposal, providing adequate capacity.

The proposed Project would generate approximately 10.33 tons of solid waste per day, which is an increase of 5.42 tons per day. However, not all solid waste created by the proposed Project would be sent to Sunshine Canyon City/County Landfill. Currently, the City of Los Angeles has a recycle diversion rate of 65%, with a goal of 70% by 2013 and a zero waste goal (90% or greater diversion) by 2025(Pereira pers. comm. 2011). With the current recycle diversion rate of 65%, the amount of solid waste that would go to the landfill represents 0.03% of the permitted daily throughput of 12,100 tons. If the goal of 70% diversion is achieved by 2013, that amount would remain at 0.03%. Finally, if the goal of zero waste (90% or greater diversion) is achieved by 2030, the amount of solid waste sent to Sunshine Canyon City/County Landfill would be less than 0.01% in 2037. It is important to note that these goals are optimistic but obtainable, and should be analyzed.

The negligible increases in solid waste that would be diverted to the Sunshine Canyon City/County Landfill are considered less than significant. Additionally, proposed project operation would be required to comply with all existing hazardous waste laws and regulations, as discussed in Section 3.7 “Hazards and Hazardous Materials,” including the federal RCRA and CERCLA, as well as Titles 22 and 26 of the CCR. The Sunshine Canyon City/County Landfill would be able to accommodate the negligible increase in solid waste generated by proposed project operations. Additionally, with anticipated recycle diversion rates for the area, solid waste removal and disposal would be adequately provided for in the proposed project area, and there would no longer be an impact during proposed project operations.

Impact Determination

Based on the discussion above, the proposed Project would result in less-than-significant impacts on landfill capacities. With implementation of the Port’s Green Building Policy, construction recycling programs, and waste diversion strategies, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact UT-6: The proposed Project would not require new, offsite energy supply and distribution infrastructure, or capacity-enhancing alterations to existing facilities that are not anticipated by adopted plans or programs.

Energy (diesel fuel and electricity) would be used during construction of the proposed Project. Energy expenditures during construction would be short term in nature, 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 non-peak hours when appropriate. Additionally, construction of modern buildings and structures incorporates energy-efficient designs that are mandated by current building codes. LAHD policies, such as the LEED discussed in Section 3.12.3.2.8, would aim to make construction and development projects more energy efficient.

Furthermore, LAHD's goal is for the Port of Los Angeles to be the most energy efficient port to date. To accomplish this task, LAHD has committed to design any new building over 7,500 square feet with a minimum LEED Gold or Silver certification, depending on whether the proposed building is of a type intended for LEED NC certification (e.g., new office buildings). As such, energy efficiency standards would be incorporated on various buildings to decrease energy demands.

Electricity demand at the proposed project site would be mainly related to office use, research and development, and classes, with the majority of the demand stemming from running the proposed Berths 57–60 seawater system. In total, the proposed Project would consume 40,247 kWh per day, with the Berths 57–60 seawater system constituting approximately 62% of the total demand. This is an increase of 38,742 kWh per day.

Natural gas demand at the proposed project site would be primarily oriented to water heating. The proposed Project would have a natural gas demand of 338,725 kBtu per day, which is approximately a 337,956 kBtu per day increase over the existing condition. The 2010 California Gas Report predicts the total capacity for natural gas to be 3,875 MMcf/day through 2030 with the projected annual gas supply taken to be approximately 2,733 MMcf/day in 2015 and 2,661 MMcf/day in 2030. Therefore, the California Gas Report predicts the total capacity for natural gas to be greater than the demand predicted through 2030.

Compared to the California Gas Report estimates, the proposed project would have a natural gas demand of approximately 33.9 MMcf/day which equates to approximately 1.2% of the supply taken in 2015, 1.3 % of the supply taken in 2030, and approximately 0.9% of the total capacity through 2030.

Impact Determination

POLA has committed to design of new buildings over 7,500 square feet to be built with minimum LEED Gold or Silver certification depending on the type of building proposed. As such, energy efficiency standards would be incorporated on various buildings to decrease energy demands. LADWP's IRP anticipates load growth and plans new generating capacity or demand-side management programs to meet load requirements for future customers. Additionally, the proposed Project would incorporate energy conservation measures in compliance with California Building Code Title 24 that requires energy efficiency standards for new construction, including requirements for new buildings, additions, alterations, and repairs to nonresidential buildings. Incorporation of these design standards, as required by state law, combined with the Port's Green Building Policy would minimize energy consumption. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.12.4.3.2 Summary of Impact Determinations

Table 3.12-11 summarizes the impact determinations of the proposed Project related to utilities, as described in the detailed discussion in Section 3.12.4.3.

Table 3.12-11. Summary Matrix of Potential Impacts and Mitigation Measures for Utilities Associated with the Proposed Project

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
3.12 UTILITIES			
UT-1: The proposed Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.	Less than significant	No mitigation is required.	Less than significant
UT-2: The proposed Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less than significant	No mitigation is required.	Less than significant

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impacts after Mitigation*
UT-3: The proposed Project would have sufficient water supplies available to serve the project from existing entitlements and resources, and would not require new or expanded entitlements.	Less than significant	No mitigation is required.	Less than significant
UT-4: The proposed Project would result in a determination by the wastewater provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than significant	No mitigation is required.	Less than significant
UT-5: The proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	Less than significant	No mitigation is required.	Less than significant
UT-6: The proposed Project would not require new, offsite energy supply and distribution infrastructure, or capacity-enhancing alterations to existing facilities that are not anticipated by adopted plans or programs.	Less than significant	No mitigation is required.	Less than significant

3.12.4.4 Mitigation Monitoring

Impacts would be less than significant, and no mitigation is required.

3.12.4.5 Significant Unavoidable Impacts

There would be no significant unavoidable impacts.