Chapter 4
Cumulative Analysis

CHAPTER SUMMARY

This chapter evaluates the potential for the Proposed Project or an alternative, together with other past, present, and reasonably foreseeable future projects in the geographic scope of each resource area, to make a cumulatively considerable contribution to a significant cumulative impact.

Chapter 4, Cumulative Analysis, provides the following:

- A description of the existing environmental setting in the Port area;
- A description of the past, present and foreseeable future projects in the surrounding area;
- An impact analysis of the cumulative impacts related to the Proposed Project and alternatives; and
- A description of any mitigation or lease measures proposed to reduce any potential impacts and residual cumulative impacts, as applicable.

Key Points of Chapter 4

The Proposed Project would construct and operate a new low-carbon cement processing facility at Berths 191-194. Its operations would be generally consistent with other uses in the Proposed Project area, which include liquid bulk, dry bulk, and container terminals. The Proposed Project would make cumulatively considerable contributions to significant cumulative impacts in the following resource areas under the California Environmental Quality Act (CEQA):

- Air Quality and Meteorology;
- Greenhouse Gas Emissions; and
- Noise.

The No Project Alternative (Alternative 1) would not contribute to any cumulatively considerable impacts as there would be no change in activity at the site, which under baseline conditions is negligible. The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would contribute to the same cumulatively considerable impacts as the Proposed Project but at a lower intensity because of lower on-site activity levels.

4.1 Introduction

This chapter presents CEQA requirements for a cumulative impact analysis and analyzes the potential for the Proposed Project or an alternative to contribute to a cumulatively considerable effect when its impacts are combined with those of other past, present, and reasonably foreseeable future projects. Following the presentation of the requirements related to the cumulative impact analyses and a description of the related projects (Sections 4.1.1 and 4.1.2, respectively), the analysis in Section 4.2 addresses each of the resource areas for which the Initial Study/Notice of Preparation (IS/NOP) concluded that the Proposed Project or an alternative may make a cumulatively considerable contribution to a significant cumulative impact when combined with impacts from other reasonably foreseeable projects in the area.

4.1.1 Requirements for Cumulative Impact Analysis

CEQA Guidelines (14 California Code of Regulations [CCR] 15130) require a reasonable analysis of the cumulatively considerable impacts of a Proposed Project. Cumulative impacts are defined by CEQA as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (State CEQA Guidelines Section 15355).

Cumulative impacts are further described as follows:

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impacts from several projects are the changes in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (40 CFR Section 1508.7 and State CEQA Guidelines, Section 15355(b)).

Furthermore, according to State CEQA Guidelines Section 15130(a)(1):

> *As defined in Section 15355, a "cumulative impact" consists of an impact that is created as a result of the combination of the project evaluated in the EIR [Environmental Impact Report] together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.*

In addition, as stated in the State CEQA Guidelines, Section 15064(h)(4):

> *The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the Proposed Project's incremental effects are cumulatively considerable.*

Therefore, the following cumulative impact analysis focuses on whether the impacts of the Proposed Project or alternatives would make a cumulatively considerable contribution to a significant cumulative impact within the context of impacts caused by other past, present, or future projects. The cumulative impact scenario considers other projects proposed within the area defined for each resource that would have the potential to contribute to cumulatively considerable impacts.

4.1.2 Projects Considered in the Cumulative Analysis

Table 4-1 lists 48 recent, current, or reasonably foreseeable future projects (approved or proposed) identified within the general vicinity of the Proposed Project that could contribute to cumulative impacts. The list was compiled from sources that include the Los Angeles Harbor Department (LAHD), the Port of Long Beach, Los Angeles Department of Transportation (LADOT), the City of Los Angeles, and other local jurisdictions. The locations of most of those projects are shown in Figure 4-1 (some projects are located beyond the boundaries of the map, others have no specific geographic location) with project summaries to follow in Table 4-1. One project of particular note in this cumulative analysis is Project #31, the Berths 187-191 (Vopak) Liquid Bulk Terminal Wharf Improvements and Cement Terminal Project, as it is located immediately adjacent to the Proposed Project. Furthermore, that project would, if approved, be constructed at approximately the same time as the Proposed Project and its vessels would use the same berth (Berth 191) as the Proposed Project during operations.

The list of related projects does not include numerous small and medium-sized residential and commercial developments in the general vicinity of the Proposed Project site (i.e., San Pedro, Wilmington, Harbor City, Carson, and Long Beach). Those projects are assumed to be included in the population and activity projections produced by the Southern California Association of Governments (SCAG) and other planning entities and used in the South Coast Air Quality Management District (SCAQMD) and LADOT analyses on which this cumulative analysis is based, and thus do not need to be considered separately.

For the purposes of this Draft EIR, the Project vicinity is defined as the area over which effects of the Proposed Project or an alternative could considerably contribute to cumulative effects. The cumulative regions of influence for individual resources are documented further in each of the resource-specific subsections in Section 4.2.

Figure 4-1. Locations of Related and Cumulative Projects

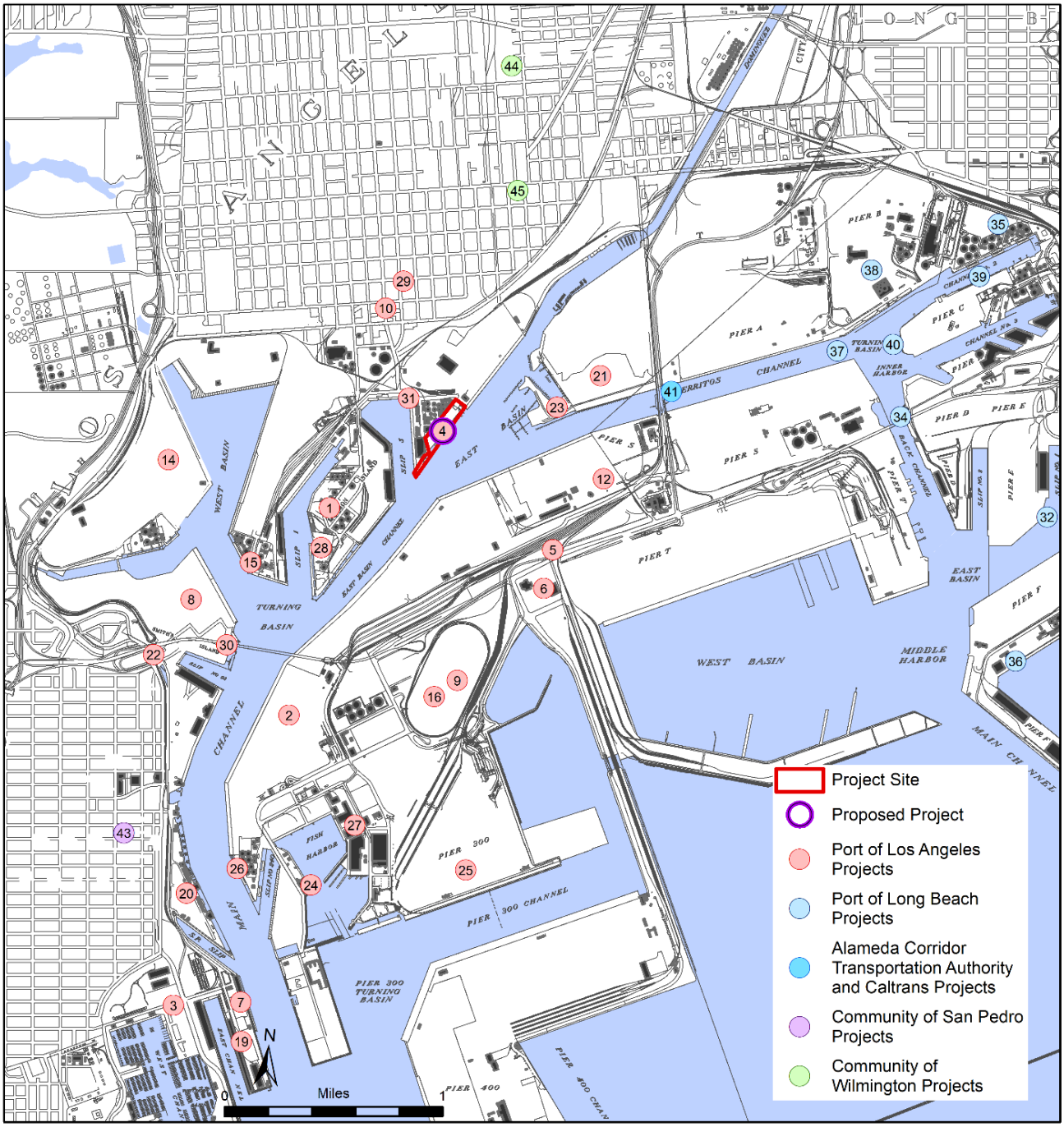

Table 4-1: Related and Cumulative Projects

No. in Figure	Project Title and Location	Project Description	Project Status
Port of Los Angeles Projects			
1	Berth 163-164 (Nustar-Valero) Marine Oil Terminal Wharf Improvements Project	The Proposed Project involves demolishing the existing 19,000-square-foot timber wharf and constructing a new, steel and concrete loading platform, access trestles, mooring and berthing structures, and necessary utilities to comply with the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). The project also consists of a 30-year lease for the facility.	IS/MND approved September 2021. Construction pending.
2	Berths 226-236 (Everport) Container Terminal Improvements Project	Proposed redevelopment of existing container terminal, including improvements to wharves, adjacent backland, crane rails, lighting, utilities, new gate complex, and modification of adjacent roadways and railroad tracks. Project also would include demolition of two unused buildings and other small accessory structures at the former Canner's Steam Plant in the Fish Harbor Area of the Port.	In operation. Construction completed April 2022.
3	Cabrillo Way Marina Project	The Proposed Project includes developing, operating, and maintaining a marina, hotels, boater and visitor-serving club and meeting facilities, restaurants, retail buildings, and commercial areas at 2293 Miner Street. This project was evaluated in the West Channel/Cabrillo Marina Phase II Development Project (Cabrillo Way Marina) Final Supplemental Environmental Impact Report certified in December 2003.	Environmental review in process.
4	Berths 191-194 (Ecocem) Low-Carbon Cement Processing Facility (Proposed Project)	Construction and operation of a dry bulk terminal for vessel unloading, raw material milling, and storage and loading onto trucks of low-carbon construction binder.	Notice of Preparation (NOP) released in March 2022. **This is the Proposed Project.**
5	Navy Way/Seaside Interchange Project	Construction of roadway improvements at SR-47/Navy Way to eliminate traffic signal and movement conflicts. The project would augment an existing partial interchange at SR 47/Seaside Avenue/Navy Way by removing the last traffic signal and at-grade intersection between Interstate [I]-710 and I-110, adding a new auxiliary lane and a new collector-distributor road, and implementing traffic channelization improvements.	Environmental review in process.
6	Reeves Ave Marine Services Support Yard	Construction and operation of a maritime support yard to provide cargo sorting and congestion relief for all container terminals in Port of LA and Port of Long Beach.	In operation. Construction completed in early 2022.
7	Westway Decommissioning	Decommissioning of the Westway Terminal along the Main Channel (Berths 70–71). Work includes decommissioning and removing 136 storage tanks with total capacity of 593,000 barrels and remediation of the site.	Decommissioning completed in 2013. Remediation planning underway.
8	Berths 97-109, China Shipping Development Project	Development of the China Shipping Terminal Phase I, II, and III including wharf construction, landfill and terminal construction, and backland development, including operation under a revised project to modify certain mitigation measures.	Final Supplemental EIR (FSEIR) completed in 2019.

Table 4-1: Related and Cumulative Projects

No. in Figure	Project Title and Location	Project Description	Project Status
9	Maritime Support Facility Access/Terminal Island Rail System Grade Separation Project	Construction of a new roadway grade separation over railroad tracks at the (Los Angeles Export Terminal) LAXT loop on Terminal Island.	Environmental review in process.
10	Wilmington Waterfront Master Plan (Avalon Boulevard Corridor Project)	Planned development intended to provide waterfront access and promoting development specifically along Avalon Boulevard. Project elements include a promenade, waterfront park, pedestrian bridge, location for the Wilmington Youth Sailing and Aquatic Center, public pier, and other visitor serving uses.	Construction underway in phases.
11	Berth 44 Boatyard Project	The proposed project includes redevelopment of the former San Pedro Boatworks site at 2945 Miner Street. Project components include demolition of existing structures and buildings on site; grading; paving; and constructing concrete pads, docks, gangways, slips, underground utilities, water treatment systems, storm drain, fencing, lighting, and buildings to support boatyard operations.	Environmental review in process.
12	Berths 206-209 Chassis Depot and Repair Facilities	Use of existing warehouses at 849 East New Dock Street and 921 East New Dock Street for chassis depot, storage, maintenance and repair.	Final ND certified July 2019.
13	Southern California International Gateway Project (SCIG)	Construction and operation of a 157-acre dock railyard intermodal container transfer facility (ICTF) and various associated components, including the relocation of an existing rail operation.	Final EIR certified May 2013. Revised EIR completed in 2021.
14	Berths 121-131 Container Terminal Improvements Project	Demolish existing wharf at Berths 126-129, construct a new wharf, install up to 10 new wharf cranes, reconstruct the shoreline, dredge and dispose of up to 310,000 cy of sediments to deepen the berth, expand the existing on-dock railyard and install electric-powered RMG cranes for railcar loading/unloading.	Notice of Intent (NOI)/NOP released in 2014. EIR/EIS in preparation.
15	Berths 148-151 (Phillips 66) Marine Oil Terminal Improvement Project	Various wharf and seismic ground improvements that are required in order to comply with MOTEMS and a new 20-year entitlement.	IS/NOP released March 2022. EIR in preparation.
16	Terminal Island Maritime Support Facility	The proposed project includes the development and operation of a maritime support facility on an approximately 80-acre LAXT loop site on Terminal Island.	Environmental review in process.
17	Clean-up Dredging	Clean-up dredging is the routine removal of accumulated sediment from channel beds to maintain the design depths of navigation channels, harbors, marinas, boat launches, and port facilities. This is conducted regularly for navigational purposes (at least once every three to five years).	Continuous, but intermittent on average every 3-5 years.

Table 4-1: Related and Cumulative Projects

No. in Figure	Project Title and Location	Project Description	Project Status
18	Outer Harbor Cruise Terminal and Outer Harbor Park	Construction of two new, cruise terminals that would total up to 200,000 square feet (approximately 100,000 square feet each) and parking at Berths 45–47 and 49–50 in the Outer Harbor. The terminals would be designed to accommodate the berthing of a Freedom Class or equivalent cruise vessel (1,150 feet in length). A proposed Outer Harbor Park would encompass approximately 6 acres at the Outer Harbor. This project was evaluated in the San Pedro Waterfront Project EIS/EIR certified in September 2009.	Draft Request for Proposal for future development released January 2023.
19	City Dock No. 1 Marine Research Project (AltaSea)	This project includes development of a marine research center within a 28-acre area located between Berths 57-72. This project would change the break bulk areas east of East Channel (Berths 57-72) to institutional uses.	Phase I development in progress since 2017.
20	West Harbor Modification Project (formerly San Pedro Public Market)	This project includes redevelopment of 30-acres, formerly known as the Ports O' Call Village, which involves development of an 108,000 square foot outdoor amphitheatre, an entertainment venue 2.5 acres in size, a 100-foot diameter Ferris wheel with an approximately 150-foot tall by 50-foot wide tower attraction and other visitor-serving commercial uses This project was evaluated in the San Pedro Waterfront Project EIS/EIR certified in September 2009.	NOP released in April 2022. Conceptual planning by private developer ongoing. Subsequent EIR in process.
21	Anchorage Road Soil Storage Site (ARSSS) Open Space	This project would create approximately 30 acres of passive open space at the ARSSS. The project may also include undergrounding utilities and roadway improvements at the Anchorage and Shore Road intersection.	On hold.
22	SR-47/Vincent Thomas Bridge & Front St./Harbor Blvd. Interchange Reconfiguration	Reconfigure the existing interchange at State Route 47/Vincent Thomas Bridge and Harbor Boulevard/Front Street to improve safety and operation for vehicles exiting the highway. Improvements also include modifications of the eastbound entrance ramps and modification of Harbor Boulevard and Front Street approaching and between the ramp termini.	Design underway.
23	Workforce Training Center	The proposed project includes development of an approximately 20 acre site at 1440 Anchorage Road for a goods movement workforce training.	Environmental review in process.
24	Al Larson Boat Shop Improvement Project	Modernization of existing boat yard and 30-year lease extension. This project was evaluated in a Final EIR approved in 2009.	Project on hold.
25	Berths 302-306 (APL now known as Fenix Marine) Container Terminal Project	Improvements and expansion of the existing terminal, including the addition of cranes, modifications to the main gate, converting an existing dry container storage unit to a refrigerated unit, and the expansion of the terminal onto 41 acres adjacent to the existing terminal. Revised project includes continued operations with minor modifications to the terminal and a 15-year lease extension through 2043. This project was evaluated in a Final EIR in 2012 and Addendum in 2016.	Expansion project on hold, revised project ongoing.

Table 4-1: Related and Cumulative Projects

No. in Figure	Project Title and Location	Project Description	Project Status
26	Berths 238-239 (PBF Energy) Marine Oil Terminal Improvement Project	Demolition of the existing Berth 238 loading platform and construction of a new platform and associated mooring structures at Berth 238, and installation of landside improvements.	Construction pending.
27	Star-Kist Cannery Facility	Demolition of 14-acre site for future use as cargo support or container chassis storage.	Mitigated Negative Declaration adopted February 2023; construction pending.
28	Berths 167-169 (Shell) Marine Oil Terminal Wharf Improvements Project	Various wharf and seismic ground improvements that are required in order to comply with MOTEMS, as well as other landside elements and a new 30 year lease. This project was evaluated in a Final EIR approved in 2018.	Construction pending.
29	Avalon and Fries Street Segments Closure Project	Physical closure of segments of Avalon Boulevard and Fries Avenue by installing street modifications that include cul-de-sacs, curbs and gutters, and fencing and signage.	Construction pending.
30	Avalon Freight Services Relocation Project	Shifting existing Catalina Island freight operations from Berth 184 in Wilmington to Berth 95 in San Pedro.	Construction pending.
31	Berths 187-191 (Vopak) Liquid Bulk Terminal Wharf Improvements and Cement Terminal Project	Repairs and upgrades to the existing liquid bulk terminal wharves at Berths 187-190 that are required to comply with MOTEMS, repairs and structural upgrades to the Berth 191 wharf to support resuming maritime cement import operations, and a new 30-year entitlement.	IS/NOP issued July 2022. EIR in preparation.
Port of Long Beach Projects			
32	Middle Harbor Terminal Redevelopment, Port of Long Beach	Consolidation of two existing container terminals into one 345-acre (138-hectare) terminal. Construction includes landfill, dredging, and wharf construction; construction of an intermodal rail yard; and reconstruction of terminal buildings.	Approved project. FEIR certified in 2009. Construction completed in 2021.
33	Piers G & J Terminal Redevelopment Project, Port of Long Beach	Redevelopment of two existing marine container terminals into one terminal. The Piers G and J redevelopment project is in the Southeast Harbor Planning District area of the Port of Long Beach. The project will develop a marine terminal of up to 315 acres by consolidating two existing terminals on Piers G and J and several surrounding parcels. Construction will occur in four phases and will include approximately 53 acres of landfills, dredging, concrete wharves, rock dikes, and road and railway improvements.	Approved project. Construction ongoing.

Table 4-1: Related and Cumulative Projects

No. in Figure	Project Title and Location	Project Description	Project Status
34	Gerald Desmond Bridge Replacement Project, Port of Long Beach and California Department of Transportation/Federal Highway Administration (Caltrans/FHWA)	Replacement of the existing 4-lane Gerald Desmond highway bridge over the Port of Long Beach Back Channel with a new 6- to 8-lane bridge.	FEIR/Environmental Assessment (EA) certified in 2010. Construction of Long Beach International Gateway Bridge completed in 2020. Demolition of Gerald Desmond Bridge underway.
35	Pier B Rail Yard Expansion (On-Dock Rail Support Facility)	Expansion of the existing Pier B Rail Yard in two phases, including realignment of the adjacent Pier B Street and utility relocation.	FEIR certified February 2018. Construction pending.
36	Mitsubishi Cement Corporation Facility Modifications	Facility modification, including the addition of a catalytic control system, construction of four additional cement storage silos, and upgrading existing cement unloading equipment on Pier F.	Project approved in April 2015. Construction commenced June 2021.
37	Southern California Edison Transmission Tower Replacement Project	Replace a series of transmission towers across the Cerritos Channel.	FEIR certified in 2017. Construction completed in August 2021. Demolition of old towers underway.
38	Toyota Facility Improvements Project	Construction of a new consolidated Vehicle Processing and Distribution Center, Hydrogen Call and Generator Facility, and Fueling Station. Demolition of some existing facilities.	Mitigated Negative Declaration adopted in 2018. Construction ongoing.
39	World Oil Tank Installation Project	Installation and operation of two 25,000-barrel petroleum storage tanks.	Environmental review underway.
Army Corps of Engineers			
40	Deep Draft Navigation and Main Channel Deepening Project	Dredge up to 10 million cubic yards of material to deepen channels, basins, and standby areas to improve waterborne transportation efficiencies and navigational safety for vessel operations. A new dredge substation may be constructed to provide electricity to dredge equipment.	FEIR/EIS underway.
Alameda Corridor Transportation Authority and Caltrans Projects			
41	Schuyler Heim Bridge Replacement and State Route (SR) 47 Terminal Island Expressway	Alameda Corridor Transportation Authority (ACTA)/Caltrans project to replace the Schuyler Heim Bridge with a fixed structure and improve the SR-47/Henry Ford Avenue/ Alameda Street transportation corridor by constructing an elevated expressway from the Heim Bridge to SR 1 (Pacific Coast Highway [PCH]).	Construction completed. Elevated expressway deferred indefinitely.

Table 4-1: Related and Cumulative Projects

No. in Figure	Project Title and Location	Project Description	Project Status
ICTF Joint Powers Authority (north of Figure 4-1)			
42	Union Pacific Railroad ICTF Modernization and Expansion Project	Union Pacific proposal to modernize existing intermodal yard 4 miles north of the Port.	Draft EIR on hold.
Community of San Pedro Projects			
43	Pacific Corridors Redevelopment Project, San Pedro	Development of commercial/retail, manufacturing, and residential components. Construction underway of four housing developments and Welcome Park.	Project underway. Estimated 2032 completion year according to City of Los Angeles Planning Department.
Community of Wilmington Projects			
44	Distribution Center and Warehouse 755 E. L St, Wilmington	Construction of a 135,000-square-foot distribution center and warehouse on a 240,000-square-foot lot.	Construction completed, project is in operation.
45	Wilmington Redevelopment Plan Amendment/ Expansion Project, Wilmington	The existing Wilmington Industrial Park would be expanded by an additional 2,487 acres, for a total of approximately 2,719 acres. Under the probable maximum level of development, the overall project area could support up approximately 7,326 residential units (primarily multi-family; zone changes under the plan would permit multi-use and higher density residential development). In addition to the residential development, the project could accommodate up to approximately 207 acres (9 million square feet) of commercial development and up to 333 acres (14.5 million square feet) of industrial development.	NOP for Program EIR released for public review in August 2010. Currently on hold.
City of Carson (north of Figure 4-1)			
46	Carson Stormwater and Runoff Capture Project	Excavation of 1.5 acre parcel at Sepulveda Boulevard and Figueroa Street and installation of an underground stormwater storage facility and associated infrastructure to store up to 17 acre feet of water.	Negative Declaration adopted 2017;
47	Phillips 66 Los Angeles Carson Plant – Crude Oil Storage Capacity Project	Increase crude oil storage capacity at the Los Angeles Refinery Carson Plant by installing one new 615,000 barrel crude oil storage tank with a geodesic dome, increasing the annual permit throughput limit of two existing 320,000 barrel crude oil storage tanks, and installing geodesic domes on the same two existing 320,000 barrel crude oil storage tanks. Tie-ins to the Pier “T” crude oil delivery pipeline from Berth 121 would be installed.	Final ND approved December 2014. Currently under construction.

Table 4-1: Related and Cumulative Projects

No. in Figure	Project Title and Location	Project Description	Project Status
48	Shell Carson Facility Ethanol (E10) Project	Conversion of existing 69,000 barrel gasoline storage tanks to ethanol service. The EIR for this project included the following project objectives: 1. Increase the Carson Facility's ethanol storage capacity by approximately 75 percent; 2. Increase ethanol tanker-truck loading capacity by at least 75 percent; 3. Include modifications that would minimize impacts to its existing capacity to receive, store and deliver other petroleum products at current levels; and 4. Maintain operational efficiency, safety and flexibility.	FEIR published December 2012.

4.2 Cumulative Impact Analysis

The following sections analyze the cumulative impacts identified for each resource area relative to the Proposed Project and the list of related projects identified in Table 4-1. The discussion of impacts of past, present, and reasonably foreseeable future projects refers to the list of projects and reference numbers as shown in Table 4-1. The alternatives listed below are analyzed under CEQA relative to the related projects:

- Alternative 1 – No Project Alternative;
- Alternative 2 – Reduced Project Alternative; and
- Alternative 3 – Product Import Terminal Alternative.

The cumulative impact analysis considers the resources that are analyzed in Chapter 3 of this Draft EIR. The Initial Study determined that construction and operation of the Proposed Project could make substantial contributions to cumulatively considerable impacts related to air quality, energy, greenhouse gases, noise, and tribal resources. It also determined that the Proposed Project could result in significant impacts on biological resources (specifically, candidate, sensitive, or special status species), geological resources, and land use. Finally, ground transportation is presented in Chapter 3 for informational purposes. Accordingly, these issues are further evaluated in this cumulative impacts analysis. The remaining resource areas that the Initial Study eliminated from further analysis in the EIR are not included in this cumulative analysis.

4.2.1 Air Quality and Meteorology

4.2.1.1 Scope of Analysis

The region of analysis for cumulative effects of air emissions (Cumulative Impacts AQ-1 and AQ-3) is the South Coast Air Basin (SCAB). For evaluating localized effects of air quality through ambient pollutant concentrations (Cumulative Impacts AQ-2 and AQ-4), the Southern California Air Quality Management District (SCAQMD) typically assesses cumulative projects within one mile of a Project site. For health effects (Impact AQ-5), the area of influence includes the cumulative projects within the Port complex and their effects on the surrounding communities of San Pedro, Wilmington, and Long Beach.

4.2.1.2 Significance Criteria

Criteria Pollutants

As described in Section 3.1, air quality within the SCAB has generally improved since the inception of air pollutant monitoring in 1976. This improvement is mainly due to lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation of emission reduction strategies by SCAQMD. This trend towards cleaner air has occurred despite continued population growth. However, stationary industrial and mobile emission sources and topographical/meteorological conditions that inhibit atmospheric dispersion combine to create adverse pollution effects in the SCAB. In regard to the National Ambient Air Quality Standards (NAAQS), the U.S. Environmental Protection Agency (U.S. EPA) currently classifies the SCAB as in "extreme" nonattainment for ozone (8-hour standard) and in "serious" nonattainment for fine particulate matter ($PM_{2.5}$) (24-hour standard). The SCAB is in attainment of the NAAQS for particulate matter (PM_{10}), carbon monoxide (CO), sulfur dioxide (SO_2), and

nitrogen dioxide (NO_2). In regard to the California Ambient Air Quality Standards (CAAQS), as of 2022, CARB classifies the SCAB as in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. The SCAB is in attainment of the CAAQS for NO_2, SO_2, CO, lead, and sulfates and is unclassified for hydrogen sulfide and visibility-reducing particles (CARB 2022). The 2022 South Coast AQMD Air Quality Management Plan (AQMP) predicts that the SCAB will reach attainment of the 2015 ozone 8-hour standard by 2037, but only if substantial reductions in NO_X emissions, especially from federally-regulated sources such as heavy-duty trucks, trains, and oceangoing vessels, can be achieved (SCAQMD 2022).

The contributions of the Proposed Project and alternatives to cumulative impacts was assessed using SCAQMD's guidance, which states that projects that exceed SCAQMD's project-level significance thresholds are considered by SCAQMD to be cumulatively considerable. Conversely, projects that do not exceed the project-level thresholds are generally not considered to be cumulatively considerable (SCAQMD 2003). Significance thresholds are presented in Section 3.1.4.6. Because SCAQMD guidance does not distinguish between attainment and nonattainment pollutants, this analysis assumes that for Cumulative Impacts AQ-1, AQ-2, AQ-3, and AQ-4 (see Section 4.2.1.3), exceedance of any project-level threshold would also constitute a cumulatively considerable contribution to a significant cumulative impact. An exception to this approach would be Cumulative Impact AQ-5, related to health risk from toxic air contaminants, as described Section 4.2.1.3. Cumulative Impact AQ-6, related to AQMP consistency, is addressed qualitatively, in accordance with SCAQMD's qualitative threshold.

Toxic Air Contaminants (TACs)

According to SCAQMD's MATES V study, the cancer risk in 2018 from inhalation of toxic air contaminants in the communities in the vicinity of the San Pedro Bay ports was estimated at 504 in one million (SCAQMD 2021). Although the MATES V results showed a 40% decrease in cancer risk from the MATES IV study in 2013 (SCAQMD 2015), and a basin-wide 84% decrease since the MATES II study in 1998 (SCAQMD 2000), health risk from air toxics in the port area remains elevated above the risks in communities elsewhere in the Basin.

To reduce Port-related cancer risks in adjacent communities, the Ports of Los Angeles and Long Beach approved Port-wide air pollution control measures through implementation of the San Pedro Bay Ports Clean Air Action Plan (CAAP), designed with the goal of reducing diesel particulate matter (DPM) emissions by 85%, compared to 2005 emissions, by 2020 (POLA and POLB 2010, 2017). In developing the San Pedro Bay Standards, the Port recognized the importance of ensuring that new projects are designed to be consistent with the CAAP as well as with other applicable regulations allowing the Port to meet long-term health risk and emission reduction goals. According to the latest report (LAHD 2020), the Port has met the CAAP's emission reduction goals for DPM.

Given the existing elevated cancer risk in communities surrounding the Port, this analysis assumes that any increase in health impacts (individual cancer risk, chronic hazard index, acute hazard index, population cancer burden) above the baseline resulting from the Proposed Project or alternatives would be cumulatively considerable.

4.2.1.3 Impact Analysis

Cumulative Impact AQ-1: Would the Proposed Project or alternatives result in construction-related emissions that would make a cumulatively considerable contribution to a significant cumulative impact from exceedance of an SCAQMD threshold of significance in Table 3.1-4?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

The Proposed Project would be constructed over approximately 18 months, assumed to be 2024-2025. Several large or moderate-sized construction projects could occur concurrently at the Port and surrounding areas (see Table 4-1), including, as mentioned in Section 4.1.2, the Berths 187-191 (Vopak) Marine Terminal Improvements Project (#31) immediately adjacent to the Proposed Project. Other related projects that could be under construction simultaneously, include the Avalon Boulevard Corridor Project (#10), Outer Harbor Cruise Terminal and Outer Harbor Park (#18), SR-47/Vincent Thomas Bridge & Front St./Harbor Blvd. Interchange Reconfiguration (#22), Berths 302–306 [APL] Container Terminal Project (#26), Berths 238-239 (PBF Energy) Marine Oil Terminal Improvement Project (#26), Piers G & J Terminal Redevelopment Project (#33), and the Pier B Rail Yard Expansion (#35). A number of smaller projects, including residential and commercial projects in Carson and the San Pedro and Wilmington communities, could also contribute to construction air emissions.

The construction impacts of the related projects would be cumulatively significant if their combined construction emissions would exceed the SCAQMD daily emission thresholds for construction. Because this would almost certainly be the case for the majority of analyzed criteria pollutants and precursors (PM_{10}, $PM_{2.5}$, nitrogen oxides [NO_X], sulfur oxides [SO_X], CO, and volatile organic compounds [VOCs]), the related projects would result in a significant cumulative air quality impact for PM_{10}, $PM_{2.5}$, NO_X, SO_X, CO and VOC.

Contribution of the Proposed Project (Prior to Mitigation)

The calculated construction emissions associated with the Proposed Project, the Reduced Project Alternative (Alternative 2), and the Product Import Terminal Alternative (Alternative 3) reflect compliance with the LAHD Sustainable Construction Guidelines for Reducing Air Emissions (LAHD 2009), described in Section 4 of Appendix B1, that reduce construction-related emissions impacts. Those guidelines, which are required by LM AQ-4, include control measures requiring construction sources (equipment, harbor craft and trucks) to be cleaner than those in an average regional fleet, and for construction fugitive dust to be controlled.

Proposed Project construction emissions would not exceed the SCAQMD significance threshold for any criteria pollutant (Table 3.1-9). As a result, Proposed Project construction emissions would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would have no construction activities and would therefore not make a cumulatively considerable contribution to a significant cumulative impact related to construction emissions.

Emissions from construction of the Reduced Project Alternative (Alternative 2) (Reduced Project Alternative [Alternative 2], Table 3.1-9) and Product Import Terminal Alternative (Alternative 3) (Product Import Terminal Alternative [Alternative 3], Table 3.1-19) would not exceed the SCAQMD significance threshold for any criteria pollutant. As a result, construction emissions of both alternatives would not make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Residual Cumulative Impacts

Because the Proposed Project's construction emissions would not exceed SCAQMD significance thresholds, no mitigation is necessary, and construction of the Proposed Project would not make a cumulatively considerable and unavoidable contribution to a significant cumulative impact..

As with the Proposed Project, construction emissions from the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would not exceed SCAQMD significance thresholds, no mitigation is necessary, and the alternatives would not make a cumulatively considerable and unavoidable contribution to a significant cumulative impact.

Cumulative Impact AQ-2: Would the Proposed Project or alternatives construction result in off-site ambient air pollutant concentrations that would make a cumulatively considerable contribution to a significant cumulative impact from exceedance of a SCAQMD threshold of significance in Table 3.1-5?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

As described in Cumulative Impact AQ-1, above, several large or moderate-sized construction projects (Table 4-1) and a number of small projects in the Port and surrounding areas could occur concurrently with construction of the Proposed Project, including the Vopak project adjacent to the Project site. The construction impacts of these related projects would be cumulatively significant if their combined construction ambient pollutant concentrations would exceed the ambient concentration thresholds for construction. Although there is no way to be certain if a cumulative exceedance of the thresholds would happen for any pollutant without performing dispersion modeling of the related projects, cumulative air quality impacts are likely to exceed the thresholds for PM_{10}, and $PM_{2.5}$, and NO_2, and are unlikely to exceed the thresholds for CO and SO_2 because the entire SCAB is in attainment for CO and SO_2, and project-level modelling evaluations for other large Port projects have calculated levels well below the CO and SO_2 threshold. Consequently, construction of the related projects are assumed to result in a significant cumulative air quality impact for PM_{10}, $PM_{2.5}$, and NO_2.

Contribution of the Proposed Project (Prior to Mitigation)

Construction of the Proposed Project would not result in maximum off-site ambient pollutant concentrations of CO, NO_2, $PM_{2.5}$ and PM_{10} that would exceed SCAQMD federal and state thresholds (Table 3.1-10). Per SCAQMD policy, a project's contribution is considered cumulatively considerable if the project's impacts exceed SCAQMD project-specific significance threshold (SCAQMD 2003). As a result, impacts from Proposed Project construction would not make a cumulatively considerable contribution to an existing significant cumulative impact related to off-site ambient concentrations.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would have no construction activities and would therefore not make a considerable contribution to an existing significant cumulative impact.

Construction of the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would produce similar emissions as the Proposed Project, and would therefore not result in maximum off-site emissions of any criteria pollutant that would exceed SCAQMD thresholds. Accordingly, impacts from construction of the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would not make a cumulatively considerable contribution to an existing significant cumulative impact related to off-site ambient concentrations.

Mitigation Measures and Residual Cumulative Impacts

Because the Proposed Project, Reduced Project Alternative (Alternative 2), and Product Import Terminal Alternative (Alternative 3) would not contribute to significant cumulative impacts related to off-site emissions concentrations, no additional mitigation is necessary. Therefore, construction of the Proposed Project and the two build alternatives (Reduced Project Alternative [Alternative] 2 and Product Import Terminal [Alternative 3]) would not make a cumulatively considerable and unavoidable residual contribution to a significant cumulative impact.

Cumulative Impact AQ-3: Would operation of the Proposed Project or alternatives result in operational emissions that would make a cumulatively considerable contribution to a significant cumulative impact from exceedance of a SCAQMD threshold of significance in Table 3.1-6?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Operation of most of the past, present, and reasonably foreseeable projects in Table 4-1 would contribute to cumulatively considerable impacts by emitting criteria pollutants. The operational impacts of related projects would be cumulatively significant if their combined operational emissions would exceed the SCAQMD daily emission thresholds for operations. Because this almost certainly would be the case for most or all analyzed criteria pollutants and precursors, the related projects are assumed to result in a significant cumulative air quality criteria pollutant impact.

Contribution of the Proposed Project (Prior to Mitigation)

Proposed Project operational emissions would exceed SCAQMD significance thresholds for NO_X in all of the analyzed years (Table 3.1-11). These impacts would combine with impacts from related projects, including the Vopak cement terminal operation that would also utilize Berth 191; as a result, without mitigation, the Proposed Project's operational emissions would make a cumulatively considerable contribution to an existing significant cumulative impact for NO_X.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not result in operational emissions. Accordingly, the No Project Alternative (Alternative 1) would not make a cumulatively considerable contribution to an existing significant cumulative air quality impact.

The Reduced Project Alternative (Alternative 2) (Reduced Project Alternative (Alternative 2), Table 3.1-15) and Product Import Terminal Alternative (Alternative 3) (Product Import Terminal, Table 3.1-20) operational emissions would exceed SCAQMD significance thresholds for NO_X in all analysis years. These impacts would combine with impacts from concurrent related projects, which would already be cumulatively significant. As a result, without mitigation, both alternatives would make a cumulatively considerable contribution to a significant cumulative impact for NO_X.

Lease Measures and Residual Cumulative Impacts

No feasible mitigation measures are available to further reduce operational emissions, but several lease measures would be applied to the Proposed Project and the two build alternatives (see Section 3.1 Air Quality). Applicable lease measures would be LM AQ-1: Fleet Modernization for Cementitious Material Handling Equipment LM AQ-2: Periodic Review of New Technology and Regulations and LM AQ-3: At-Berth Vessel Emission Capture and Control System Review and Application, and LM AQ-5: Vessel Speed Reduction Program (VSRP). However, because these measures would not reduce emissions of NO_x to below thresholds in all operational years, the Proposed Project and the two build alternatives would continue to have significant air quality impacts related to operational NO_x emissions. Therefore, the Proposed Project and both build alternatives would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for NO_x.

Cumulative Impact AQ-4: Would operation of the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to offsite ambient air pollutant concentrations exceeding a SCAQMD threshold of significance?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Operation of most of the related projects in Table 4-1 would contribute to cumulatively considerable impacts. The operations impacts of related projects would be cumulatively significant if their combined operations ambient pollutant concentrations would exceed the ambient concentration thresholds for operations. Although there is no way to be certain if a cumulative exceedance of the thresholds would happen for any pollutant without performing dispersion modeling for each of other projects, cumulative air quality

impacts are likely to exceed the thresholds for PM_{10}, $PM_{2.5}$, and NO_2, and, as explained under Cumulative Impact AQ-2, are unlikely to exceed the thresholds for CO and SO_2. Consequently, operation of the related projects are assumed to result in a significant cumulative air quality impact for PM_{10}, $PM_{2.5}$, and NO_2.

Contribution of the Proposed Project (Prior to Mitigation)

Operation of the Proposed Project would produce maximum off-site emissions of PM_{10} and $PM_{2.5}$ that would exceed the annual and 24-hr ambient air thresholds in all analysis years (Table 3.1-12). These impacts would combine with impacts from concurrent related projects, including the Vopak cement terminal operation that would also utilize Berth 191. As a result, without mitigation, Proposed Project operations would make a cumulatively considerable contribution to an existing significant cumulative impact related to ambient concentrations of PM_{10} and $PM_{2.5}$.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not result in operational emissions. Accordingly, the No Project Alternative (Alternative 1) would not make a cumulatively considerable contribution to an existing significant cumulative air quality impact.

Emissions from operation of the Reduced Project Alternative (Alternative 2) would result in off-site concentrations of annual and 24-hour PM_{10} and 24-hour $PM_{2.5}$ that would exceed SCAQMD thresholds in every analysis year except, in the case of $PM_{2.5}$, 2025 (Table 3.1-17). Accordingly, the Reduced Project Alternative (Alternative 2) would make a cumulatively considerable contribution to a significant cumulative impact with respect to ambient concentrations of PM_{10} and $PM_{2.5}$.

Emissions from operation of the Product Import Terminal Alternative (Alternative 3) would result in off-site concentrations of annual PM_{10} and 24-hour PM_{10} and $PM_{2.5}$ that would exceed SCAQMD thresholds in every analysis year (Table 3.1-22). Accordingly, the Product Import Terminal Alternative (Alternative 3) would make a cumulatively considerable contribution to a significant cumulative impact related to ambient concentrations of PM_{10} and $PM_{2.5}$.

Mitigation Measures and Residual Cumulative Impacts

The Proposed Project and the Reduced Project Alternative (Alternative 2) operational emissions reflect the application of water flushing/spray control measures to mitigate the release of fugitive dust sourced from material handling and front end loader (FEL) movements, the two largest contributors to the exceedance of PM_{10} and $PM_{2.5}$ ambient pollutant concentrations from operations. In addition, emissions associated with the Proposed Project and both build alternatives would be controlled by Best Available Control Technologies (BACT), particularly dust collection and bag filters, throughout major process drop points like the hoppers and silos. Therefore, since operational emissions would already be controlled to the extent feasible, no additional mitigation is available.

As described for Cumulative Impact AQ-3, several lease measures (LM AQ-1 through LM AQ-3 and LM AQ-5) would be applied to the Proposed Project and the two build alternatives. However, those measures cannot be assumed to reduce particulate emissions to below significance thresholds in all years. Therefore, operation of the Proposed Project and the two build alternatives would make a cumulatively considerable and unavoidable

contribution to a significant cumulative impact related to ambient PM_{10} and $PM_{2.5}$ concentrations.

Cumulative Impact AQ-5: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact from exposure of receptors to significant levels of toxic air contaminants?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Although the SCAQMD MATES studies have documented substantial decreases in cancer risk to Port-area populations over the past 20 years, health risk from air toxics in the port area remains elevated above the risks in communities elsewhere in the SCAB. In addition, CARB's Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach estimated that there are elevated levels of cancer risks due to operational emissions from sources within and near the Ports (CARB 2006). Based on this information, cancer risk from TAC emissions within the Project region, including the past, present, and reasonably foreseeable future projects and the Proposed Project, is considered a significant cumulative impact. Non-cancer impacts associated with past, present, and reasonably foreseeable projects in the Proposed Project area are also assumed to have significant cumulative impacts.

As described in Section 3.1.3, the Port has approved port-wide air pollution control measures through the CAAP (POLA and POLB 2010, 2017). Implementation of those measures would reduce the health risk impacts from the Proposed Project and future projects at the Port. Existing regulations and future rules proposed by CARB and the USEPA (see Section 3.1.3) would also further reduce air emissions and associated cumulative health impacts from Port operations. However, because future proposed measures (other than CAAP measures) and rules have not been adopted, they have not been accounted for in the emission calculations or health risk assessment for the Proposed Project. Therefore, it is unknown at this time how those future measures would reduce cumulative health risk impacts within the Project area; accordingly, airborne cancer and non-cancer impacts within the Project region are considered to be cumulatively significant.

Contribution of the Proposed Project (Prior to Mitigation)

A health risk assessment (HRA) evaluated four different types of health effect: individual cancer risk, acute non-cancer hazard index, chronic non-cancer hazard index, and population cancer burden. The HRA determined that the maximum incremental cancer risks, acute hazard index impacts, chronic hazard index impacts, and population cancer burden associated with construction and operations of the Proposed Project would be less than significant at the project-level (Table 3.1-14).

Although the Proposed Project construction and operational emissions of TACs would not increase cancer risk or population cancer burden above the project-level thresholds of significance, these impacts would combine with cumulative impacts from concurrent nearby projects. Therefore, the Proposed Project would make a cumulatively considerable contribution to an existing significant cumulative impact for cancer risk and population cancer burden.

Although the Proposed Project would not increase non-cancer chronic or acute impacts above project-level significance thresholds, these impacts would combine with cumulatively significant non-cancer and acute impacts of concurrent nearby projects; therefore, the Proposed Project would make a cumulatively considerable contribution to significant cumulative non-cancer chronic and acute health impacts.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not result in emissions of TACs. Accordingly, the No Project Alternative (Alternative 1) would not make a cumulatively considerable contribution to an existing significant cumulative air quality impact.

Impacts from emissions of TACs from construction and operation of the Reduced Project Alternative (Alternative 2) (Table 3.1-18) and Product Import Terminal Alternative (Alternative 3) (Table 3.1-23) would be similar to those of the Proposed Project; although because emissions would be somewhat lower the impacts would not be as severe. Accordingly, those alternatives would similarly each make a cumulatively considerable contribution to significant cumulative impacts for cancer risk, chronic and acute hazard indices, and population cancer burden.

Mitigation Measures and Residual Cumulative Impacts

As described in Section 3.1.5.1 and for Cumulative Impacts AQ-3 and AQ-4, above, no additional mitigation is feasible. However, it is expected that lease measures LM AQ-1 through LM AQ-5 (Section 3.1.5.1): would help reduce the severity of increased health risks. Because the level of reduction is uncertain at this point, it is concluded that the Proposed Project and both build alternatives would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for cancer risk, population cancer burden, and chronic and acute hazard indices.

Cumulative Impact AQ-6: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact from conflict with or obstruction of the implementation of an applicable AQMP?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Related projects at the Port and surrounding areas (see Table 4-1) would have significant cumulative impacts if they result in population growth or operational emissions that exceed the assumptions in the 2022 AQMP (SCAQMD 2022). The related projects would be subject to regional planning efforts and applicable land use plans (such as the General Plan, Community Plans, or the Particulate Measurement Program) or transportation plans such as the Regional Transportation Plan and the Regional Transportation Improvement Program. Since the 2022 AQMP accounts for population projections that were developed by SCAG and accounts for planned land use and transportation infrastructure growth, the related projects would be consistent with the AQMP. Therefore, the related projects would not result in significant cumulative impacts related to an obstruction of the AQMP.

Contribution of the Proposed Project (Prior to Mitigation)

The Proposed Project would produce emissions of nonattainment pollutants, particularly NO_X (as an ozone precursor). As discussed in Section 3.1.3, the 2022 and prior 2016

AQMPs propose mobile source control measures and clean fuel programs that are designed to bring the SCAB into attainment of the state and national ambient air quality standards. Many of the AQMP control measures are adopted as SCAQMD rules and regulations, which are then used to regulate sources of air pollution in the region. Proposed sources must comply with all applicable SCAQMD rules and regulations; therefore, the Proposed Project would not conflict with or obstruct implementation of the AQMP.

LAHD regularly provides SCAG with its Port-wide cargo forecasts for development of the AQMPs. Therefore, the attainment demonstration included in the 2022 AQMP accounts for the emissions generated by projected future growth at the Port. Furthermore, LAHD implements the 2017 CAAP Update, which sets goals and implementation strategies that reduce air emissions from Port operations. In some cases, CAAP measures have produced emission reductions that are greater than those forecasted in the AQMP (LAHD 2020). Because the Proposed Project would incorporate CAAP control measures such as the Vessel Speed Reduction Program (VSRP), required by LM AQ-5, and compliance with lease measures LM AQ-1 and LM AQ-2 as described in Section 3.1, and would comply with the applicable AQMP control measures for Port activities, it would not conflict with or obstruct implementation of the AQMP. As a result, the Proposed Project would not make a cumulatively considerable contribution to a cumulative impact in terms of conflicting with or obstructing implementation of an applicable AQMP.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not result in additional emissions that would conflict with the AQMP or other regional or local air quality plan. The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would have generally similar emissions as the Proposed Project and, for the reasons described above for the Proposed Project, would not make a cumulatively considerable contribution to a cumulative impact in terms of conflicting with or obstructing implementation of an applicable AQMP.

Mitigation Measures and Residual Cumulative Impacts

No mitigation is required because the Proposed Project and alternatives would not make a cumulatively considerable contribution to a significant cumulative impact.

4.2.2 Biological Resources

Scope of Analysis

The geographic region of analysis for biological resources differs by organism groups such as birds, fish, marine mammals, plankton, and benthic invertebrates. The mobility of species in these groups, their population distributions, and the normal movement range for individuals living in an area varies so that effects on biotic communities in one area can affect those communities in other nearby areas. The significance criteria used for the cumulative analysis are the same as those used for the Proposed Project in Section 3.2.4.2. As discussed in Section 3.2.4.2, the IS/NOP for the Proposed Project concluded that impacts related to CEQA Guidelines Appendix G checklist issues IV a) would be considered in this Draft EIR; accordingly this cumulative impact analysis considers checklist issue IV a), i.e., Impact BIO-1.

For terrestrial biological resources (excluding water-associated birds), the geographic region of analysis is limited to those land areas at the Project site and extending throughout the Port Complex, as this is where the majority of biological resources in the vicinity are located. The resources present are common species that are abundant throughout the region and are adapted to industrial areas in the Harbor. The geographical region of analysis for marine benthic communities, water column communities (plankton and fish), and water-associated birds is the water areas of the Los Angeles/Long Beach Harbor (inner and outer Harbor areas) because the basins, slips, channels, and open waters are hydrologically and ecologically connected. For marine mammals, the analysis area includes the Los Angeles-Long Beach Harbor as well as the Pacific Ocean from near Angels Gate out to Catalina Island in order to cover vessel traffic effects.

Special-status species have differing population sizes and dynamics, distributional ranges, breeding locations, and life history characteristics. Because bird species are not year-round residents but migrate to other areas where stresses unrelated to the Proposed Project and other projects in the Harbor area can occur, the area for cumulative analysis is limited to the Harbor. Sea turtles are not expected to occur in the Harbor and their presence in the near-shore areas where vessel traffic could affect them is unlikely and unpredictable; consequently, these animals are not considered in the cumulative analysis.

Past, present, and reasonably foreseeable future development that could contribute to significant cumulative impacts on terrestrial resources are those projects that involve land disturbance such as grading, paving, landscaping, construction of roads and buildings, and related noise and traffic impacts. Noise, traffic, and other operational impacts can also be expected to have significant cumulative impacts on terrestrial species. Marine organisms could be affected by activities in the water, such as dredging, pile driving, and vessel traffic. Runoff of pollutants from construction and operations activities on land into Harbor waters via storm drains or sheet runoff also has the potential to affect marine biota, at least near the storm drains.

Cumulative Impact BIO-1: Would the Proposed Project or alternatives contribute to a cumulative substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Construction of past fill projects in the Harbor has reduced the amount of marine surface water present, and thus reduced foraging and resting areas for special-status bird species, but these projects have also added more land and structures that can be used for perching near the water. In 1973, LAHD began monitoring the nesting activity of the California least tern, and in 1979 created a dedicated nesting habitat on Pier 300; the nesting site is now on the southern tip of Pier 400. Extensive shallow-water areas that provide foraging habitat for the California least tern and other bird species have been constructed in the Harbor as mitigation for loss of such habitat from past projects. As described in Section 3.2, biological surveys have shown that marine biological resources in the Harbor continue to flourish and that the quality of the marine habitat continues to improve.

Accordingly, impacts to special-status species as a result of marine habitat loss are not cumulatively significant.

Periodic clean-up dredging (#17), and other future projects in the Port that could involve extensive dredging or other in-water work, such as the marine oil terminal improvement projects (#1 [Berth 163-164 (Nustar-Valero) Marine Oil Terminal Wharf Improvements Project], #15 [Berths 148-151 (Phillips 66) Marine Oil Terminal Improvement Project], #26 [Berths 238-239 (PBF Energy) Marine Oil Terminal Improvement Project], #28 [Berths 167-169 (Shell) Marine Oil Terminal Wharf Improvements Project], and #31 [Berths 187-191 (Vopak) Liquid Bulk Terminal Wharf Improvements and Cement Terminal Project]), have the potential to adversely affect California least tern foraging during construction activities. The effects of these activities would be localized, temporary, and minimized by the control measures required by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Boards (RWQCB) permits. Projects that are not near the nesting colony, including the Vopak project (#31) immediately adjacent to the Proposed Project, would not be expected to have adverse effects on the California least tern. For these reasons, impacts to the California least tern would not be cumulatively significant. With respect to other special-status bird species (Table 3.2-1), it is not expected that any nesting or foraging habitat or individuals would be lost as a result of development of the related projects.

Ship strikes involving marine mammals and sea turtles, although uncommon, have been documented for a number of listed species in the eastern North Pacific (Section 3.2.2.6). In Southern California, potential strikes to blue whales are of the most concern due to the migration patterns of blue whales and the established shipping channels. Blue whales normally pass through the Santa Barbara Channel en route from breeding grounds in Mexico to feeding grounds farther north. Incidental ship strikes and fisheries interactions are listed by the National Marine Fisheries Service (NMFS) as the primary threats to the California population.

Historical data on whale strikes suggest that vessel-speed reduction would substantially reduce the potential for whale strikes because 80% of recorded strikes occurred with ships traveling faster than 12 knots. The Port has in place its Vessel Speed Reduction Program (VSRP), which provides incentives to vessel operators for lowering vessel transit speeds to 12 knots from Point Fermin out to 40 nautical miles from the Port. Port records for the past three years (2020-2022) show more than 90% participation in the VSRP, thereby reducing potential for present and future increases in whale strikes due to vessels entering the Harbor. In addition, the International Maritime Organization (IMO) recently narrowed the Traffic Separation Scheme in the Santa Barbara Channel, which is expected to reduce co-occurrence of whales and vessels. Operation of many of the related projects have in the past and will in the future include vessel traffic to and from the Harbor, and continued whale mortalities from vessel strikes is considered to be a significant cumulative impact.

The related projects that have involved vessel traffic can be assumed to have increased ambient underwater noise in the Harbor and in the ocean from the vessel traffic lanes to Angels Gate and Queens Gate. This increase is assumed on the basis of the increased size of vessels, as vessel numbers are not expected to increase substantially. Marine terminal upgrade and expansion projects (i.e., Berths 226-236 [Everport] Container Terminal [#2], Berths 121-131 Container Terminal [#14], Outer Harbor Cruise Terminal [#18], Berths 302–306 [Fenix] Container Terminal Project (#25), Middle Harbor Terminal Redevelopment (#32), and Piers G & J Terminal Redevelopment (#33) could continue to increase ambient underwater noise. That increase could cause some individual marine

mammals to avoid the vessels as they move into, through, and out of the Harbor. However, the increase is not expected to result in a significant cumulative impact, as a measurable change of 3 dBA would require a substantial increase in vessel activity, which is not expected. Therefore, no significant cumulative in-water noise impacts would be expected to occur that could affect sensitive species.

In-water construction activities, and particularly pile driving, would also generate underwater sound pressure waves that could affect marine mammals in the area. Any seals or sea lions present in the vicinity of Port construction projects would likely avoid the disturbance areas and thus would not be injured. In-water construction of the Berths 187-191 (Vopak) Liquid Bulk Terminal Wharf Improvements and Cement Terminal Project (#31) adjacent to the Proposed Project and of other related projects in the general vicinity of the Proposed Project, such as Berth 163-164 (NuStar-Valero) Marine Oil Terminal Wharf Improvements Project (#1), Berths 121-131 Container Terminal (#14), Berths 148-151 (Phillips 66) Marine Oil Terminal Improvement Project (#15), Berths 238-239 (PBF Energy) Marine Oil Terminal Improvement Project (#26), and Berths 167-169 (Shell) Marine Oil Terminal Wharf Improvements Project (#28) could occur concurrently, but those activities are unlikely to have an adverse cumulative effect on the marine mammals because ample area exists for any marine mammals that happen to be in the area to move in order to avoid disturbance. As a consequence, construction of the related projects would not be expected to result in significant cumulative impacts to marine mammals.

Contribution of the Proposed Project (Prior to Mitigation)

As discussed in Section 3.3.4.3, construction of the Proposed Project is not likely to result in the loss of individuals or the reduction of existing critical habitat of a state or federally listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern. No designated or proposed critical habitat is present in or adjacent to the Proposed Project area. In-water construction would cause localized activity, noise, and turbidity that could affect birds and marine mammals. However, these impacts would be temporary and limited to the waters in the vicinity of construction activities. Implementation of required water quality monitoring during clean-up dredging according to the requirements of the RWQCB, and implementation of standard clean-up dredging best management practices (BMPs) via adaptive management of the clean-up dredging (see Section 3.2.4.1), would minimize these impacts Therefore, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact related to special-status species from construction activities.

Noise from impact pile driving could cause fish, seals, and sea lions to avoid construction areas during pile driving but is not expected to result in the loss of individuals or habitat. Nevertheless, impacts of noise associated with pile driving are considered potentially significant, but those potential impacts would be reduced with implementation of MM BIO-1 (Protect Marine Mammals). Because this measure would ensure that marine mammals would avoid pile-driving areas and because noise levels would not exceed established thresholds for fish, no injury to marine mammals or fish from pile-driving sounds would be expected. Accordingly, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact related to pile driving.

Vessel activity from the Proposed Project would result in underwater noise. However, the small number of vessels calling at Berth 191 (24 calls per year at full operation from the Orcem operation and a similar number from the Vopak operation) relative to the total

number of vessels calling in the Port of Los Angeles (1,863 in 2021) would not result in a measurable change in overall underwater noise (the number of vessels would need to double to increase sound in the Harbor by 3 dBA). Therefore, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact related to special-status species from underwater noise.

The small increase in vessel traffic associated with the Proposed Project would not substantially increase the likelihood of a vessel collision with a marine mammal or sea turtle. The additional annual vessel calls associated with the Proposed Project would be a minor increase in overall vessel calls to the Port, and as described in Section 3.3.4.3, recent data suggest that increases in ship strikes likely result from higher abundance of whales in nearshore waters and higher vessel speeds, rather than more vessels. Compliance with the Port's Vessel Speed Reduction Program would reduce the potential for vessel collision with marine mammals and sea turtles. Accordingly, the Proposed Project would have a low probability of vessel strikes, and operation of the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact to marine mammals (the potential contribution to whale mortality) from vessel strikes.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not include any in-water construction and would not increase operational activity above baseline conditions. Accordingly, the No Project Alternative (Alternative 1) would not make a cumulatively considerable contribution to a significant cumulative impact related to water quality, vessel activity, or construction-related underwater noise.

The Reduce Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would result in additional operational vessel activity compared to the baseline, but for the reasons described for the Proposed Project, impacts related to underwater noise and vessel strikes on marine mammals would not be significant. Accordingly, neither alternative would make a cumulatively considerable contribution to a significant cumulative impact related to special-status species.

Mitigation Measures and Residual Cumulative Impacts

Implementation of mitigation measure MM BIO-1, which requires the establishment of a safety zone and monitoring for marine mammals within the general area of construction, would reduce potential cumulative effects from pile driving on marine mammals and ensure that the Proposed Project, and the two build the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3), would not make a cumulatively considerable contribution to a significant cumulative impact related to pile driving.

None of the alternatives would make a cumulatively considerable contribution to a significant cumulative impact related to any other biological issue, and therefore do not require mitigation.

4.2.3 Energy Conservation

Scope of Analysis

The scope of the analysis of cumulative effects related to energy conservation includes the overall port complex (the Ports of Los Angeles and Long Beach) and the immediate

surrounding region. The analysis recognizes that energy is required for virtually every activity undertaken by citizens and businesses every day, including domestic uses, transportation, manufacturing, construction, and goods movement and distribution. Energy is supplied by a variety of sources, but fossil fuels are currently the major source. Given the finite nature of fossil fuel supplies and the need to reduce fossil fuel use due to their documented relationship to climate change, the efficiency of energy use and the extent to which energy can be conserved are important issues. The significance criteria used for the cumulative analysis are the same as those used for analysis in Section 3.3.4.2.

Impact EN-1: Would the Proposed Project make a cumulatively considerable contribution to a significant cumulative impact related to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Construction and operation of past, present, and reasonably foreseeable future projects has consumed and will continue to consume energy in the form of electricity, petroleum fuels, and natural gas. These demands are currently accommodated by existing facilities as petroleum fuels are provided by local refineries, electricity is provided by Los Angeles Department of Water and Power (LADWP), and natural gas is provided by the Southern California Gas Company (SCGC). Many of the projects identified in Table 4-1, both inside the ports and in adjacent communities, involve new or expanded uses that have resulted or will result in additional demands on fuel, electricity, and natural gas.

As described in Section 3.3.2.1, LADWP has a total generating capacity of about 8,000 megawatts (MW) to serve a peak Los Angeles-area demand of about 6,500 MW (LADWP 2022). The Power Strategic Long-Term Resource Plan (STLRP; LADWP 2017) predicts that LADWP's overall system capacity is adequate to meet forecasted consumption, even though annual demand for electricity is forecasted to increase by nearly 50% through the current SLTRP planning horizon of 2040. Through implementation of strategies identified in the Power Integrated Resource Plan (IRP), electricity resources and reserves at LADWP will adequately provide electricity for the study region.

Natural gas service to the region is supplied by SCGC. As described in Section 3.3.2.2, demand is expected to be flat or to decline slightly for the next 15 years for a variety of reasons. SCGC has a capacity of approximately 3,435 million cubic feet per day (MMcf/day) whereas demand is predicted to be between 2,100 and 2,400 MMcf/day through 2035 (California Gas and Electric Utilities 2021).

As described in Section 3.3.2.3, taxable gasoline sales in California in 2020, including aviation gasoline, totaled approximately 15.4 billion gallons and diesel sales totaled approximately 3 billion gallons (CBE 2022a, b). Demand for gasoline is predicted to decline somewhat over the next 10 years and demand for diesel fuel will remain stable or increase slightly. Future related projects would be expected to reduce vehicular fuel use by encouraging the use of alternative modes of transportation and other project features. Because fuel use is not predicted to increase substantially, Southern California will have adequate fuel supplies to accommodate the related projects.

As described above, adequate energy supplies exist to meet the demands of the related projects. Furthermore, the high cost of energy represents an incentive for construction and operational activities to use energy as efficiently as is consistent with Project goals and fiscal responsibility. Therefore, past, present, and reasonably foreseeable future projects would not result in a cumulatively significant impact related to energy use and conservation.

Contribution of the Proposed Project

As described in Section 3.3.4.4, construction of the Proposed Project would not result in unnecessary use of energy because construction is necessary to achieve the overall Project objective. Because construction would be consistent with the policies in the Port of Los Angeles' Sustainable Construction Guidelines, which include provisions to reduce energy consumption such as limiting idling and other measures, it would not result in wasteful consumption of energy.

Operation of the Proposed Project would consume more energy, in the form of natural gas, electricity, diesel fuel, and gasoline, than under baseline conditions, but, as described in Section 3.3.4.4, that energy would be used efficiently because the energy use per ton of product would be substantially less than that of traditional cement processes. Several operational elements of the Proposed Project, including the conveyors, the grinding mill, and the dryer fans, would be electrically powered, which would reduce the use of fossil fuels. Furthermore, the Proposed Project would be subject to a number of city, state, and federal sustainability and energy conservation goals and standards.

Because construction and operation of the Proposed Project would represent an efficient use of energy, the Proposed Project would not result in a cumulatively considerable contribution to a significant cumulative impact related to energy demand or the efficient use of energy resources under CEQA. Furthermore, by providing a construction binder that requires less energy to produce than traditional cement products, the Proposed Project would contribute to increasing the energy efficiency of the Southern California construction industry and, therefore, of the region.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not involve construction, and operational activities would be the same as baseline activities. Accordingly, energy consumption would be negligible and would not increase above baseline conditions. The No Project Alternative (Alternative 1) would not make a cumulatively considerable contribution to a significant cumulative impact related to energy conservation.

The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would involve similar construction and operational activities as the Proposed Project. Accordingly, the two build alternatives would not make a cumulatively considerable contribution to a significant cumulative impact related to energy conservation.

Mitigation Measures and Residual Cumulative Impacts

No mitigation is required because the Proposed Project and alternatives would not make a cumulatively considerable contribution to a significant cumulative impact.

4.2.4 Geology & Soils

The Initial Study/Notice of Preparation (IS/NOP) for the Proposed Project issued on March 10, 2022, concluded that the Proposed Project could have a potentially impact related to unstable soils (issue VII c). Accordingly, that issue was included for consideration in the Draft EIR as Impact GEO-1 and is considered in this cumulative analysis.

Impact GEO-1: Would the Proposed Project make a cumulatively considerable contribution to a significant cumulative impact related to geologic units or soils that are unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Unstable soils are common in the Port area because much of the land on which Port terminals sit consists of engineered fill constructed of fine-grained dredged sediments. Outside the Port, unstable alluvial deposits are present in some places. However, construction of past, present, and reasonably foreseeable future projects has been and will continue to be conducted in accordance with the California Building Standards Code, the Los Angeles Municipal Code, and local codes as applicable. These codes include requirements for addressing and mitigating the risks of unstable soils by appropriate engineering design and construction measures. As a result, unstable soils have not endangered the structural integrity or safety of buildings, equipment, or infrastructure in the port area in recent decades. Therefore, past, present, and reasonably foreseeable future projects would not result in a cumulatively significant impact related to unstable soils.

Contribution of the Proposed Project

As described in Section 3.4.4.3, design and construction of the Proposed Project would incorporate the recommendations of a site-specific geotechnical study that addresses the structural characteristics of the soils at the Project site. Furthermore, the Proposed Project is not near any of the related projects except the Vopak project (# 31). The proposed ground-disturbing improvements would be sufficiently distant from the Vopak site (approximately 400 feet) and would include sufficient ground stabilization elements (e.g., stone columns and pilings) that they could not affect the Vopak site. Accordingly, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact related to unstable soils.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not involve construction, so there would be no risks related to unstable soils. Accordingly, the No Project Alternative (Alternative 1) would not make a cumulatively considerable contribution to a significant cumulative impact.

The Reduced Project Alternative (Alternative 2) and the Product Import Terminal Alterative (Alternative 3) would involve similar structures and construction as the Proposed Project. Accordingly, for the same reasons as described for the Proposed

Project, neither alternative would make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Residual Cumulative Impacts

No mitigation is required because the Proposed Project and alternatives would not make a cumulatively considerable contribution to a significant cumulative impact.

4.2.5 Greenhouse Gas Emissions

Scientific evidence indicates a trend of warming global surface temperatures over the past century due largely to the generation of greenhouse gas (GHG) emissions from anthropogenic sources, as further discussed in Section 3.5, Greenhouse Gas Emissions. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth.

Cumulative Impact GHG-1: Would the Proposed Project or alternatives generate GHG emissions, either directly or indirectly, that would make a cumulatively considerable contribution to a significant cumulative impact?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Past, present, and reasonably foreseeable future projects in the area (Table 4-1) have generated and will continue to generate GHGs from the combustion of fossil fuels and the use of coatings, solvents, refrigerants, and other products. Current and future projects will incorporate a variety of GHG reduction measures in response to federal, state, and local mandates and initiatives, and these measures are expected to reduce GHG emissions from future projects. However, because of the long-lived nature of GHGs in the atmosphere and the global nature of GHG emissions impacts, no specific quantitative thresholds of significance under CEQA for GHG emissions from related projects in the region or state-wide have been identified. It is therefore conservatively assumed that any GHG emissions related to past, present, and reasonably foreseeable future projects represent a significant cumulative impact.

Contribution of the Proposed Project (Prior to Mitigation)

The challenge in assessing the significance of an individual project's contribution to global GHG emissions and associated global climate change impacts is to determine whether a project's GHG emissions, which are at a micro-scale relative to global emissions, make a cumulatively considerable incremental contribution to a macro-scale impact. SCAQMD developed a project-level significance threshold for GHGs. For the purposes of this cumulative discussion, it is conservatively assumed that an exceedance of the project-level threshold would result in a cumulatively considerable contribution to the overall GHG burden.

GHG emissions associated with the Proposed Project would exceed SCAQMD's threshold in 2025, 2027 and 2049. The Proposed Project's impacts would combine with impacts from related projects, including the Vopak cement terminal operation that would

also utilize Berth 191, which would already be cumulatively significant. As a result, without mitigation, impacts from construction and operation of the Proposed Project would make a cumulatively considerable contribution to an existing significant cumulative impact related to GHG and climate change.

Note, however, that by providing a construction binder that requires less energy to produce than traditional cement products, the Proposed Project would contribute to reductions in the GHG emissions from the Southern California construction industry and, therefore, of the region. As described in sections 2.2.1 (Project Description) and 3.3.1 (Energy) and in Table 3.3-1, the production of ground granulated blast-furnace slag (GGBFS) requires only about 14% of the energy required for traditional Portland cement (and thus produces a correspondingly lower amount of GHGs). Therefore, the replacement of up to 775,000 tons per year of Portland cement by GGBFS (Table 2-2) in the approximately 6 million tons of cement used by the Southern California construction industry each year (see Section 2.2.1) would have corresponding benefits in terms of emissions of GHGs (note, however, that this potential benefit was not quantified in this document due to the infeasibility of analyzing the complex cement and construction industries as a whole).

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not result in an increase in GHG emissions and would therefore not make a cumulatively considerable contribution to a significant cumulative impact. The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3)'s GHG emissions would exceed the SCAQMD GHG significance thresholds. Those impacts would combine with impacts from related projects, which would already be cumulatively significant. As a result, without mitigation, impacts from the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would make a cumulatively considerable contribution to an existing significant cumulative impact related to GHG and global climate change.

Lease Measures and Residual Cumulative Impacts

The Proposed Project analysis assumes compliance with the LAHD 2009 Sustainable Construction Guidelines through lease measure LM AQ-4, as required for all developments in the Port. Through LM AQ-1 and LM AQ-2, when compatible technology becomes available, the operational equipment could be replaced with zero- or near-zero-emissions technology. Because there is some timeline uncertainty, this analysis does not quantify the potential benefits of those measures; regardless, it is expected that these measures could lead to reductions of future GHG emissions. In addition, LM AQ-5 and LM AQ-6 could help reduce GHG emissions, and LM GHG-1 would off-set part of the GHG emissions of the Proposed Project.

After mitigation and the application of lease measures, Proposed Project emissions would be reduced, but would likely continue to exceed the significance threshold. Accordingly, the Proposed Project would continue to make a considerable contribution to a significant cumulative impact.

The lease measures applied to the Proposed Project would also be applied to Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3). However, as with the Proposed Project, GHG emissions would likely still exceed the significance thresholds. Accordingly, after mitigation and the application of lease measures, the Reduced Project Alternative (Alternative 2) and Product Import Terminal

Alternative (Alternative 3) would continue to make a considerable contribution to a significant cumulative impact.

4.2.6 Land Use

Scope of Analysis

Because the Proposed Project has the capacity to affect the environment within the Port and surrounding communities, the region of analysis for cumulative land use impacts includes the Port and extends to adjacent areas, including the communities of Wilmington and San Pedro, and into the Port of Long Beach (Figure 4-1). The Wilmington and San Pedro communities are assessed in terms of their compatibility with the already existing Port industrial uses. The IS/NOP for the Proposed Project (Appendix A) concluded that the Draft EIR would consider impacts related to CEQA Guidelines Appendix G checklist issue XI b), would the Project conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact? Accordingly, the cumulative analysis in this Draft EIR considers checklist issue XI b) as LU-1.

Cumulative Impact LU-1: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Past projects in the region of analysis have been subject to the goals and objectives delineated in the Port Master Plan (PMP), the City of Los Angeles General Plan, and other applicable land use plans. Over the years, the Port has developed consistent with the PMP objectives that give priority to water-dependent developments to ensure the Port is maintained as an important local, regional, and national resource, as well as coordinating development of the Port and adjacent communities as stipulated in the General Plan. Similarly, present projects within the Proposed Project vicinity have been developed to ensure consistency with the PMP and other applicable land use plan policies. Accordingly, past, present, and reasonably foreseeable future projects would not result in a significant cumulative impact related to plan inconsistencies.

Contribution of the Proposed Project

As stated in Section 3.6.4.3, the Proposed Project would be consistent with the adopted objectives and policies identified in the City's General Plan and adopted environmental goals or policies contained in other applicable plans. Once the proposed PMP amendment is certified by the California Coastal Commission, the proposed improvements would be consistent with the PMP. Additionally, as described in Section 3.6, the Proposed Project would be consistent with adopted, Port-related objectives, policies, and applicable plans contained in the City of Los Angeles General Plan, with the uses identified in the Coastal Act, and with the applicable policies and programs of the CAAP. The Proposed Project would not be governed by the policies of the Wilmington or San Pedro community plans. Because the Proposed Project would be consistent with adopted environmental goals and

policies contained in applicable plans, it would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

Because the No Project Alternative (Alternative 1) would not differ from baseline conditions it would not make a cumulatively considerable contribution to a significant cumulative impact with regard to dividing established communities. For the same reasons as described for the Proposed Project, Reduced Project Alternative (Alternative 2), and Product Import Terminal Alternative (Alternative 3) would not make a cumulatively considerable contribution to a significant cumulative impact related to land use plan consistency.

Mitigation Measures and Residual Cumulative Impacts

Neither the Proposed Project nor any alternative would make a cumulatively considerable contribution to a significant cumulative impact. Therefore, no mitigation measures would be required.

4.2.7 Noise

Scope of Analysis

For the purposes of cumulative noise impact analysis, the area of influence includes those sensitive receptors closest to the Project site that might be affected by construction noise or noise associated with traffic generated by the Proposed Project or an alternative, as well as sensitive receptors along major transportation corridors serving the Project area. Noise-sensitive receptors include residences, schools, a training /community center, and public parks.

When considering cumulative impacts, few of the related projects, except as noted in the consideration of Impact NOI-1, are close enough to the Proposed Project to contribute to noise levels at sensitive receivers, so they can be ruled out from further consideration. The noise level that results from distant projects is diminished by geometric spreading, ground attenuation, and line-of-sight obstructions, as explained in Section 3.7.1.1. Projects are considered to be too far away when the impacts that they would have on the cumulative noise level in the Project area are too small to cause a substantial increase in the cumulative noise level.

This analysis assesses the potential of the Proposed Project along with other past, present, and reasonably foreseeable future projects to cause a substantial increase in noise from construction and operational activities (including on-terminal operations and increased truck traffic noise).

Cumulative Impact NOI-1: Would the Proposed Project or alternatives result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project that would result in a cumulatively considerable exceedance of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

The Proposed Project would be constructed over an approximately 18-month schedule, assumed to begin in 2024. The related projects (Table 4-1) were reviewed to determine if any projects in the vicinity of the sensitive receptors described above would be under construction at the same time as the Proposed Project; in such a case, construction activities could, in combination, cause a cumulative construction noise impact on sensitive receptors.

In the general vicinity of the Proposed Project (i.e., within one mile), related projects that could potentially be under construction during 2024 and 2025 include, in particular, the Vopak Liquid Bulk and Cement Terminal Project (#31) adjacent to the Proposed Project, as well as the Wilmington Waterfront Plan (#10) and the Avalon and Fries Street Segments Closure Project (#29), and possibly the Avalon Freight Services Relocation Project (#30). All other related projects within one mile of the Project site and the nearby sensitive receptors have been completed or do not have reasonably foreseeable construction dates. It is likely that construction activities and associated noise levels of those related projects would be similar to those expected from the equipment necessary to construct the Proposed Project. Only one of the nearby related projects (#31, Vopak) would involve pile driving, which is the noisiest of the construction activities. Construction of the Vopak project could result in daytime noise levels of up to 16 dBA above ambient, which would represent a significant impact. Accordingly, the related projects are considered to represent a significant cumulative impact with respect to construction noise.

Noise from operation of the related projects in the vicinity of the Project site would be generated primarily by vehicular traffic. As described in Section 3.7.2.3, existing ambient noise at several locations in the general vicinity of the Project site ranges between 51 and 60 dBA, which is considered normally acceptable by the City of Los Angeles. Operation of most of the related projects would not contribute substantially to that noise, given their distance from the Project site and the fact that, with the exception of the Vopak project (#31), their related vehicular traffic would not affect the vicinity of the Project site. The Vopak project would increase traffic levels on roads used by the Proposed Project, but the noise impact of those trucks along area roadways would be similar to that of the Proposed Project which, as the analysis in Section 3.7.4 shows, would be negligible. Accordingly, the related projects are assumed not to constitute a significant cumulative impact with respect to operational noise.

Contribution of the Proposed Project

As described in Section 3.7.4.3 (tables 3.7-12 through 3.7-14), construction of the Proposed Project would cause exceedances of noise thresholds at a sensitive receptors (the East Basin marinas). Furthermore, as described above, a cumulatively considerable noise impact with respect to construction may exist if construction of the Vopak project occurred at the same time as construction of the Proposed Project. Accordingly,

construction of the Proposed Project would make a cumulatively considerable contribution to a significant cumulative noise impact.

Operation of the Proposed Project would not generate noise that would exceed significance criteria at any sensitive receptor. Therefore, the operation of the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not involve any construction activities and no operational activities above the baseline; therefore, there would be no potential for cumulative impacts. The Reduced Project Alternative (Alternatives 2) and Product Import Terminal Alternative (Alternative 3) would involve similar construction and operational activities as the Proposed Project, and would therefore make a cumulatively considerable contribution to a significant cumulative impact during construction.

Mitigation Measures and Residual Cumulative Impacts

Mitigation measure NOI-1 Noise Barriers Adjacent to Pile Driving Activities would be applied to the Proposed Project, Reduced Project Alternative (Alternative 2), and Product Import Terminal Alternative (Alternative 3) wherever feasible. However, even with that mitigation measure, construction noise levels would exceed significance thresholds. Accordingly, if construction occurred simultaneously with the Vopak project construction, the Proposed Project, Reduced Project Alternative (Alternative 2), and Product Import Terminal Alternative (Alternative 3) would continue to make a cumulatively considerable contribution to a significant cumulative impact.

Cumulative Impact NOI-2: Would the Proposed Project or alternatives result in a considerable contribution to a cumulatively significant generation of excessive groundborne vibration or groundborne noise levels?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Two of the related projects (#10, 29) near the Project site that would or could be under construction at the same time as the Proposed Project are more than 500 feet from one another, and would therefore not combine to result in a significant cumulative impact regarding groundborne construction noise. The third (Vopak, #31), is approximately 400 feet from the Project site, and is considered below with the Proposed Project. Operation of related projects in the vicinity of the Proposed Project would likewise not result in a significant cumulative impact because of the distances between the projects themselves and between the projects and sensitive receptors.

Contribution of the Proposed Project (Prior to Mitigation)

Construction of the Proposed Project would be more than 500 feet from the nearest sensitive receivers. Groundborne vibration (and related groundborne noise) dissipates rapidly over distance and would be minimal to non-existent at a distance of 500 feet. The Proposed Project is approximately 400 feet from the Vopak project (#31 on Figure 4-1), and construction-generated vibration of the two projects could combine to increase groundborne vibration or noise. However, both projects are over 1,200 feet from the East

Basin marinas and more than 2,000 feet from the nearest residences or other sensitive receivers in the Wilmington community to the north. Therefore, the Proposed Project, even in conjunction with the Vopak project, is not expected to result in excessive ground-borne vibration or ground-borne noise levels and would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not involve any construction activities; therefore, there would be no potential for cumulative construction impacts. The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would involve construction and operational activities similar to the Proposed Project, and would not, therefore, make a cumulatively considerable contribution to a significant cumulative noise impact.

Mitigation Measures and Residual Cumulative Impacts

Neither the Proposed Project nor any alternative would make a cumulatively considerable contribution to a significant cumulative impact. Therefore, no mitigation measures would be required.

4.2.8 Ground Transportation

Scope of Analysis

The transportation environmental setting for the cumulative ground transportation analysis includes those streets and intersections that would be used by employee automobile traffic. Impacts of the Proposed Project, as prescribed in the LADOT Transportation Assessment Guidelines (LADOT Guidelines; LADOT 2022), were qualitatively assessed relative to potential conflicts with area plans, design features, and emergency access, and quantitatively assessed relative to the Vehicle Miles Traveled (VMT). The impacts of the alternatives were assessed qualitatively relative to the impacts of the Proposed Project.

The VMT analysis required by CEQA considers only personal vehicle trips and does not include trips by heavy-duty trucks. However, for informational purposes, an analysis of the effects of Project-related truck traffic on levels of service (LOS) and turning lane queuing on local roadways and intersections is presented in Appendix E2 Ground Transportation and Level of Service Analysis. That analysis, which is summarized in an informational section below, constitutes a cumulative analysis, as it considers the impact of the Proposed Project on future-year regional traffic conditions (i.e., incorporating the related projects and overall regional growth).

Methodology

The methodology used to analyse cumulative transportation impacts is based on the LADOT Guidelines. The quantitative VMT analysis was conducted with the PortTAM Model (see Section 3.8.4.1 and Appendix E1 for details of the models, the modeling input assumptions, and the data used in this analysis) and the LADOT VMT Calculator.

The analysis of cumulative transportation impacts includes a consideration of reasonably foreseeable local transportation improvement projects, which include the Navy Way/Seaside Avenue Interchange Project (#5 in Table 4-1), the SR-47/Vincent Thomas Bridge & Front St./Harbor Blvd. Interchange Reconfiguration Project (#22), the Avalon

and Fries Street Segment Closure Project (#29), and Caltrans' Schuyler Heim Bridge Replacement and State Route (SR) 47 Terminal Island Expressway Project (#41).

Cumulative Impacts and Mitigation Measures

Cumulative Impact TRANS-1: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

The related projects (Table 4-1) were reviewed for their potential to alter the circulation system in a manner that would conflict with programs, plans, ordinances, or policies. Some of the future related projects listed above would include modifications of existing roadways and could require alteration or transit routes and designated bikeways. None of those projects would result in substantial modifications of the existing circulation, and some would improve traffic conditions. Accordingly, the related projects do not represent a significant cumulative impact.

Contribution of the Proposed Project

As described in Section 3.8.4.4, the Proposed Project would not include any modifications to existing roadways that support current or future bike lanes or bus stops and is not required to make any voluntary or required modifications to the public right-of-way. Accordingly, the Proposed Project would have no impact, and would therefore not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not alter the existing circulation system in any way. The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would not include any modifications to existing roadways that support current or future bike lanes or bus stops and is not required to make any voluntary or required modifications to the public right-of-way. Accordingly, the alternatives would have no impact, and would therefore not make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Residual Cumulative Impacts

Neither the Proposed Project nor any alternative would make a cumulatively considerable contribution to a significant cumulative impact. Therefore, no mitigation measures would be required.

Cumulative Impact TRANS-2: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative conflict or inconsistency with CEQA Guidelines section 15064.3, subdivision (b)?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

CEQA Guidelines Section 15064.3 subdivision (b), provides criteria for analyzing transportation impacts that are based on VMT by automobiles (e.g. employee travel). The impacts of heavy-duty vehicles (i.e., drayage trucks and construction-related trucks) are analyzed in other resource areas, such as Air Quality, Greenhouse Gas Emissions, Noise, and Energy.

Contribution of the Proposed Project

According to the LADOT Transportation Assessment Guidelines, a project would have a significant cumulative impact if it is inconsistent with SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). However, if the Project does not have a significant VMT impact it would not be inconsistent and would not, therefore result in a cumulatively considerable contribution to a significant cumulative impact. Accordingly, because the Proposed Project would not result in a significant VMT impact (see Section 3.8.4.4), it would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not result in changes in VMT from the baseline condition and would therefore not make a cumulatively considerable contribution to a significant cumulative impact. Because the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) are operationally similar to the Proposed Project, the VMT per employee would be similar to that of the Proposed Project. Accordingly, neither alternative would make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Cumulative Residual Impacts

Neither the Proposed Project nor any alternative would make a cumulatively considerable contribution to a significant cumulative impact. Therefore, no mitigation measures would be required.

Cumulative Impact TRANS-3: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to hazards due to geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

The related projects have not resulted in local or regional hazards due to design features. The projects are sufficiently separated from one another that they do not influence the design of one another's traffic features. As discussed under Cumulative Impact TRANS-

1, some of the related projects involve modification of transportation infrastructure; by improving roadway and intersection design, those projects would reduce hazards. Accordingly, the related projects do not represent a significant cumulative impact.

Contribution of the Proposed Project

The Proposed Project does not include new driveways or new vehicle access to the property from the public right-of-way, and the Proposed Project is not proposing or required to make any voluntary or required modifications to the public right-of-way. Consequently, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would result in no changes relative to baseline conditions and would therefore not make a cumulatively considerable contribution to a significant cumulative impact. The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would involve similar degrees of construction and operational activities as the Proposed Project. As discussed for the Proposed Project, therefore, the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would not make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Residual Cumulative Impacts

Neither the Proposed Project nor either build alternative would make a cumulatively considerable contribution to a significant cumulative impact. Therefore, no mitigation measures would be required.

Cumulative Impact TRANS-4: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to inadequate emergency access?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

The related projects have been or would be designed and constructed in compliance with all applicable city building codes, including providing adequate emergency access. Moreover, traffic generated by the related projects would be dispersed throughout the general region rather than being concentrated and would therefore not interfere substantially with emergency access or movement of emergency vehicles. Accordingly, the related projects do not represent a significant cumulative impact.

Contribution of the Proposed Project

Because the Proposed Project would not alter or close existing roadways or emergency access points, it would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would result in no changes relative to baseline conditions and would therefore not make a cumulatively considerable contribution to a

significant cumulative impact. The Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would involve similar degrees of construction and operational activities as the Proposed Project. For the same reasons as discussed for the Proposed Project, therefore, the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would not make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Residual Cumulative Impacts

Neither the Proposed Project nor any alternative would make a cumulatively considerable contribution to a significant cumulative impact. Therefore, no mitigation measures would be required.

Level-of-Service Informational Analysis

As described in Section 4.2.8.1, an analysis of the potential impacts of the Proposed Project's operational truck and auto trips on future traffic operating conditions (level of service, or LOS) was conducted for informational purposes. Because LOS is not an issue required by CEQA, a determination of impacts is not applicable; instead, this analysis presents a summary of existing and future (i.e., cumulative) traffic conditions in the area and of the contribution of the Proposed Project and alternatives to those conditions. The analysis considered LOS at five intersections in the vicinity of the Project site, and is presented in full in Section 3.8.6.

Effects of Past, Present, and Reasonably Foreseeable Future Projects

Under baseline conditions, only one of the intersections in the vicinity of the Proposed Project operates at an unacceptable level of service (LOS) during one of the peak hours (i.e., Alameda/Anaheim during the P.M. peak hour). LOS at all other intersections is acceptable (D or better; see Table 3.8-3), and LAHD's review of Caltrans modeling for a Caltrans project in the area indicates that future operating conditions will continue to be acceptable. None of the major related projects in Table 4-1 such as the Everport (#2), China Shipping (#8), SCIG (#13), and Berths 121-131 container terminal projects is forecasted to degrade traffic conditions at any of the five study intersections. Furthermore, as described in Section 3.8.6, roadway improvement projects in the area (e.g., the Berth 200 Roadway and Avalon Boulevard improvements) will benefit future circulation by lessening traffic volumes on Avalon Boulevard and Harry Bridges Boulevard. Accordingly, the related projects are not considered to represent a significant cumulative impact on traffic conditions in the vicinity of the Project site.

Contribution of the Proposed Project

The Proposed Project would have little long-term effect on operating conditions at the study intersections because the number of daily vehicular trips (263 truck trips and 52 automobile trips per day; see Table 3.8-4 in Section 3.8) would be small relative to overall traffic volumes. As a result, the Proposed Project's traffic would not cause any LOS to degrade compared to the without-Project conditions, and any increases in delay would likewise be small. Accordingly, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not generate any traffic, and would therefore not contribute to a significant cumulative impact. The two build alternatives (Reduced Project Alternative [Alternative 2] and Product Import Terminal Alternative [Alternative 3]) would generate similar levels of traffic as the Proposed Project. Accordingly, the alternatives would not make a cumulatively considerable contribution to a significant cumulative impact.

4.2.9 Tribal Cultural Resources

Scope of Analysis

The geographic region of analysis for cumulative impacts on tribal cultural resources related to Port projects consists of the Port and its immediate vicinity, including open water areas where presently-unknown submerged prehistoric remains may occur. Thus, past, present, planned and foreseeable future development that would contribute to cumulative impacts on tribal cultural resources include projects that would have the potential for ground disturbance in this region of analysis. The significance criteria used for the cumulative analysis are the same as those used for the Proposed Project in Section 3.9.4.2

Cumulative Impact TCR-1: Would the Proposed Project or alternatives have a potential to make a cumulatively considerable contribution to a significant cumulative impact related to substantial adverse changes in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

The land within and in the vicinity of the Port has been subject to extensive industrial, residential, commercial, and infrastructure development over the past 150 years, including, in the Port itself, clean-up dredging for channels and basins and filling for land creation that has affected virtually all of the land in the Port. Archaeologists estimate that development within urban areas, including the Proposed Project vicinity, has destroyed over 80% of all prehistoric sites, meaning that the vast majority of the prehistoric record (i.e., the physical record of Native American tribes) has already been lost. As a result of these developments, most of the landforms that might have contained significant tribal cultural resources have been substantially disturbed or destroyed, generally without proper assessment and systematic collection of information and artifacts beforehand, resulting in the loss of innumerable cultural resources related to the historic and prehistoric past of the region's Native American tribes. Accordingly, the cumulative impact of past development on tribal cultural resources has been substantial and is considered to be significant.

Contribution of the Proposed Project

The Project site consists largely of imported/modern engineered fill material (i.e., dredged material) constructed in the early twentieth century, has been extensively redeveloped over the years, and is not an upland area. Accordingly, activities associated with construction and operation of the Proposed Project would occur within the footprint of previous construction activity, and therefore would have little potential to disturb any cultural resources; furthermore, construction would employ Special Condition CR-1 if cultural resources are encountered. Consultation with Native American tribes pursuant to the requirements of AB 52 and CEQA (see Section 3.9.3) did not identify the potential presence of tribal cultural resources at the Project site. Because there would be little possibility of encountering tribal cultural resources during construction of the Proposed Project, and no possibility during operation, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not have any potential to contribute to a significant impact related to tribal cultural resources because no construction would occur and operational activities would be unchanged from baseline conditions.

Because construction of the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would, like that of the Proposed Project, take place on previously-disturbed soils and sediments, and would not involve substantial excavation, the potential for encountering tribal cultural resources would be minimal. Furthermore, construction would employ Special Condition CR-1 if cultural resources are encountered. Accordingly, the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would not make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Residual Cumulative Impacts

No mitigation is required because the Proposed Project and alternatives would not make a cumulatively considerable contribution to a significant cumulative impact. Special Condition CR-1 would further reduce the potential for impacts on tribal cultural resources.

Cumulative Impact TCR-2: Would the Proposed Project or alternatives have a potential to make a cumulatively considerable contribution to a significant cumulative impact related to substantial adverse changes in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

As described in Impact TCR-1, most of the landforms that might have contained significant tribal cultural resources have been substantially disturbed or destroyed, generally without proper assessment and systematic collection of information and artifacts beforehand. As a result, the cumulative impact of past development on tribal cultural resources has been substantial and is considered to be significant. However, in view of the degree of past disturbance of the area's landforms, the present and reasonably foreseeable related projects in Table 4-1 are unlikely to make considerable contributions to that significant cumulative impact.

Contribution of the Proposed Project

Because the Project site consists largely of land created by fill and has been extensively redeveloped over the years. The LAHD has determined, pursuant to subdivision (c) of Public Resources Code Section 5024.1, that no significant tribal cultural resources are present on the site. Accordingly, activities associated with construction and operation of the Proposed Project would have little potential to disturb any cultural resources; furthermore, construction would employ Special Condition CR-1 if cultural resources are encountered. Because there would be little possibility of encountering tribal cultural resources during construction of the Proposed Project, and no possibility during operation, the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact.

Contribution of the Alternatives

The No Project Alternative (Alternative 1) would not have any potential to contribute to a significant impact because no construction would occur.

Because construction of the Reduced Project Alternative (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would, like that of the Proposed Project, take place on previously-disturbed fill material, and would not involve substantial excavation, the potential for encountering tribal cultural resources would be minimal. Furthermore, the LAHD has determined, pursuant to subdivision (c) of Public Resources Code Section 5024.1, that no significant tribal cultural resources are present on the site. Finally, construction would employ Special Condition CR-1 if cultural resources are encountered. Accordingly, the Reduced Project Alternative 2 (Alternative 2) and Product Import Terminal Alternative (Alternative 3) would not make a cumulatively considerable contribution to a significant cumulative impact.

Mitigation Measures and Residual Cumulative Impacts

No mitigation is required because the Proposed Project and alternatives would not make a cumulatively considerable contribution to a significant cumulative impact. Special Condition CR-1 would further reduce the potential for impacts on tribal cultural resources.

4.3 Summary of Cumulatively Considerable Impacts

Next is a summary of the resource areas in which the Proposed Project and alternatives would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact after mitigation and are based on the discussions in Section 4.2 above.

4.3.1 Proposed Project

The Proposed Project would make cumulatively considerable and unavoidable contributions to significant cumulative impact after mitigation (when applicable) in the following resource areas:

- Air Quality;
    - Emissions from operations would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for NO_X emissions and for offsite ambient pollutant concentrations of PM_{10} and $PM_{2.5}$.
    - The Proposed Project would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for cancer risk for residential, sensitive and occupational receptors, for chronic and acute hazard indices, and for population cancer burden.
- Greenhouse Gas Emissions; and
    - GHG emissions would add to existing global GHG levels and, therefore, would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact relative to climate change.
- Noise
    - Construction of the Proposed Project, if it occurred at the same time as construction of the nearby Vopak project, would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact.

4.3.2 Alternative 1 – No Project Alternative

Because site conditions would remain unchanged and there would be no construction or new operations at the site, the No Project Alternative (Alternative 1) would make no cumulatively considerable and unavoidable contributions to significant cumulative impacts in any resource area.

4.3.3 Alternative 2 – Reduced Project Alternative

Like the Proposed Project, Reduced Project Alternative (Alternative 2) would make cumulatively considerable and unavoidable contributions to significant cumulative impact after mitigation in the following resource areas:

- Air Quality
    - Emissions from the Reduced Project Alternative (Alternative 2) operations would make a cumulatively considerable and unavoidable contribution to a

significant cumulative impact for NO_X emissions and for offsite ambient pollutant concentrations of PM_{10} and $PM_{2.5}$.

  - The Reduced Project Alternative (Alternative 2) would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for cancer risk for residential, sensitive, and occupational receptors, for occupational chronic and acute hazard indices, and for population cancer burden.

- Greenhouse Gas Emissions
  - GHG emissions from the Reduced Project Alternative (Alternative 2) would add to existing levels and, therefore, would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact relative to climate change.
- Noise
  - Construction of the Reduced Project Alternative (Alternative 2), if it occurred at the same time as construction of the nearby Vopak project, would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact.

The Reduced Project Alternative (Alternative 2)'s contributions to cumulative impacts would be less than those of the Proposed Project due to its reduced level of operations.

4.3.4 Alternative 3 – Product Import Terminal

Like the Proposed Project, the Product Import Terminal Alternative (Alternative 3) would make cumulatively considerable and unavoidable contributions to significant cumulative impact after mitigation in the following resource areas:

- Air Quality
  - Emissions from the Product Import Terminal Alternative (Alternative 3) operations would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for NO_X emissions and for offsite ambient pollutant concentrations of PM_{10} and $PM_{2.5}$.
  - The Product Import Terminal Alternative (Alternative 3) would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for cancer risk for residential, sensitive, and occupational receptors, for occupational chronic and acute hazard indices, and for population cancer burden.
- Greenhouse Gas Emissions
  - GHG emissions from the Product Import Terminal Alternative (Alternative 3) would add to existing levels and, therefore, would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact relative to climate change.
- Noise
  - Construction of the Product Import Terminal Alternative (Alternative 3), if it occurred at the same time as construction of the nearby Vopak project, would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact.

The Product Import Terminal Alternative (Alternative 3)'s contributions to cumulative impacts would be less than those of the Proposed Project due to its reduced level of operations, including the absence of product milling.

Table 4-2 Summary Matrix of Residual Impacts, Cumulative Analysis and Mitigation Measures for the Proposed Project and Alternatives.

Resource Area	Environmental Impacts	Proposed Project Residual Impacts	Applied Mitigation/Lease Measures or Controls	Cumulative Analysis for Proposed Project	Cumulative Analysis for build Alternatives 2 and 3
4.2.1 Air Quality	**AQ-1:** Would the Proposed Project or alternatives result in construction-related emissions that would make a cumulatively considerable contribution to a significant cumulative impact from exceedance of the SCAQMD threshold of significance in Table 3.1-4?	Less than significant	LM AQ-4: POLA Sustainable Construction Guidelines would be applied.	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
	AQ-2: Would the Proposed Project or alternatives construction result in off-site ambient air pollutant concentrations that would make a cumulatively considerable contribution to a significant cumulative impact from exceedance of a SCAQMD threshold of significance in Table 3.1-5?	Less than significant	No mitigation required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
	AQ-3: Would operation of the Proposed Project or alternatives result in operational emissions that would make a cumulatively considerable contribution to a significant cumulative impact from exceedance of a SCAQMD threshold of significance in Table 3.1-6?	Operation emissions would be significant for NOx in all operational years	LM AQ-1: Fleet Modernization for Cementitious Material Handling Equipment LM AQ-2: Periodic Review of New Technology and Regulations LM AQ-3: At-Berth Vessel Control Pilot Project LM AQ-5: Vessel Speed Reduction Program would be applied LM AQ-6: Front End Loader Replacement Schedule	**Cumulatively considerable and unavoidable contribution to a significant cumulative impact related to operational NOx emissions**	**Similar contributions as the Proposed Project to a lesser extent**

Resource Area	Environmental Impacts	Proposed Project Residual Impacts	Applied Mitigation/Lease Measures or Controls	Cumulative Analysis for Proposed Project	Cumulative Analysis for build Alternatives 2 and 3
	AQ-4: Would operation of the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to offsite ambient air pollutant concentrations exceeding a SCAQMD threshold of significance?	Operation-related ambient pollutant concentrations would be significant in all years for annual and 24-hr PM_{10}, and 24-hr $PM_{2.5}$	LM AQ-1, LM AQ-2, LM AQ-3, LM AQ-5; LM AQ-6 is applicable only to Proposed Project and Reduced Project	**Cumulatively considerable and unavoidable contribution to an existing significant cumulative impact related to ambient concentrations of PM_{10} and $PM_{2.5}$**	**Similar contributions as the Proposed Project to a lesser extent**
	AQ-5: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact from exposure of receptors to significant levels of toxic air contaminants?	Health risks would be below the significance threshold for all receptor types	LM AQ-1, LM AQ-2, LM AQ-3, LM AQ-4, LM AQ-5; LM AQ-6 is applicable only to Proposed Project and Reduced Project	**Cumulatively considerable and unavoidable contribution to an existing significant cumulative impact related to residential, non-residential sensitive, and occupational cancer risk, occupational chronic and acute hazard indices**	**Similar contributions as the Proposed Project to a lesser extent**
	AQ-6: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact from conflict with or obstruction of the implementation of an applicable AQMP?	Less than significant	No mitigation required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
4.2.2 Biological Resources	**BIO-1**: Would the Proposed Project or alternatives contribute to a cumulative substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less than significant after mitigation	MM BIO-1: Protect marine mammals	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project

Resource Area	Environmental Impacts	Proposed Project Residual Impacts	Applied Mitigation/Lease Measures or Controls	Cumulative Analysis for Proposed Project	Cumulative Analysis for build Alternatives 2 and 3
4.2.3 Energy	**EN-1:** Would the Proposed Project make a cumulatively considerable contribution to a significant cumulative impact related to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	Less than significant	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
4.2.4 Geology and Soils	**GEO-1:** Would the Proposed Project make a cumulatively considerable contribution to a significant cumulative impact related to geologic units or soils that are unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?	Less than significant	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
4.2.5 Greenhouse Gases	**GHG-1**: Would the Proposed Project or alternatives generate GHG emissions, either directly or indirectly, that would make a cumulatively considerable contribution to a significant cumulative impact?	GHG emissions would be significant under CEQA in 2025, 2027 and 2049 analysis years	LM AQ-1, LM AQ-2, LM AQ-4, and MM GHG-1: GHG Credit Fund	**Cumulatively considerable and unavoidable contribution to a significant cumulative impact related to GHG and global climate change**	**Similar contributions as the Proposed Project to a lesser extent**
4.2.6 Land Use	**LU-1:** Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact?	Less than significant	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
4.2.7 Noise	**NOI-1:** Would the Proposed Project or alternatives result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project that would result in a cumulatively considerable exceedance of standards established in the local general				

Resource Area	Environmental Impacts	Proposed Project Residual Impacts	Applied Mitigation/Lease Measures or Controls	Cumulative Analysis for Proposed Project	Cumulative Analysis for build Alternatives 2 and 3
	plan or noise ordinance, or applicable standards of other agencies?				
	NOI-1a: Daytime construction activities lasting more than 10 days in a 3-month period that would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive/receptor.	Significant and unavoidable	MM NOI-1: Noise Barriers Adjacent to Pile Driving Activities MM NOI-2: Noise Reduction of Landside Pile Driving	**Cumulatively considerable and unavoidable contribution to a significant cumulative impact related to daytime construction noise**	**Similar contributions as the Proposed Project to a lesser extent**
	NOI-1b: Construction activities could result in noise levels that would exceed the ambient noise level by 5 dBA at noise-sensitive receptors between the hours of 9:00 p.m. and 7:00 a.m., Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.	Significant and unavoidable	MM NOI-1: Noise Barriers Adjacent to Pile Driving Activities Noise Reduction of Landside Pile Driving	**Cumulatively considerable and unavoidable contribution to a significant cumulative impact related to night-time construction noise**	**Similar contributions as the Proposed Project to a lesser extent**
	NOI-1c: For operational noise, a significant noise impact would occur if project operations cause the ambient noise level measured at the property line of affected uses (i.e., sensitive receptors) to increase by 3 dBA in CNEL to or within the 'normally unacceptable' or 'clearly unacceptable category,' or any increase in CNEL 5 dBA or greater.	Less than significant	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact relayed to operational noise	Same as the Proposed Project
	NOI-2: Would the Proposed Project or alternatives result in a considerable contribution to a cumulatively significant generation of excessive groundborne vibration or groundborne noise levels?	Less than significant	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact related to groundborne noise or vibration	Same as the Proposed Project

Resource Area	Environmental Impacts	Proposed Project Residual Impacts	Applied Mitigation/Lease Measures or Controls	Cumulative Analysis for Proposed Project	Cumulative Analysis for build Alternatives 2 and 3
4.2.8 Ground Transportation	**TRANS-1:** Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No impact	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
	TRANS-2: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative conflict or inconsistency with CEQA Guidelines section 15064.3, subdivision (b)?	No Impact	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
	TRANS-3: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to hazards due to geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No impact	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
	TRANS-4: Would the Proposed Project or alternatives make a cumulatively considerable contribution to a significant cumulative impact related to inadequate emergency access?	No impact	No mitigation is required	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project
4.2.9 Tribal Cultural Resources	**TCR-1:** Would the Proposed Project or alternatives have a potential to make a cumulatively considerable contribution to a significant cumulative impact related to substantial adverse changes in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically	Less than significant	No mitigation is required but SC TCR-1 would be employed SC TCR-1: Stop Work in the Area if Prehistoric and/or Archaeological	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project

Resource Area	Environmental Impacts	Proposed Project Residual Impacts	Applied Mitigation/Lease Measures or Controls	Cumulative Analysis for Proposed Project	Cumulative Analysis for build Alternatives 2 and 3
	defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?		Resources are Encountered		
	TCR-2: Would the Proposed Project or alternatives have a potential to make a cumulatively considerable contribution to a significant cumulative impact related to substantial adverse changes in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?	Less than significant	No mitigation is required but SC TCR-1 would be employed SC TCR-1: Stop Work in the Area if Prehistoric and/or Archaeological Resources are Encountered	No cumulatively considerable contribution to an existing significant cumulative impact	Same as the Proposed Project

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