Section 3.3
Greenhouse Gas Emissions

Section Summary

Section 3.3, *Greenhouse Gas Emissions*, provides the following:

- A description of existing greenhouse gas (GHG) emissions at the Port of Los Angeles (Port);
- A list of local, state, and federal regulations and policies that apply to the Terminal Island Maritime Support Facility (MSF) Project (Proposed Project) and alternatives;
- A discussion of the methodology used to determine whether the Proposed Project or alternatives would result in a significant adverse impact regarding GHG emissions (emission calculations are provided in ~~this Partially Revised and Recirculated Draft~~Final EIR Appendix B1);
- An impact analysis of the Proposed Project and alternatives; and
- A description of mitigation measures proposed to reduce significant adverse impacts of the Project, including reasonably foreseeable direct, indirect and cumulative impacts relating to GHG emissions.

Key Points of Section 3.3

The Proposed Project would result in direct and indirect GHG emissions at levels that would ~~not~~ exceed the South Coast Air Quality Management District (SCAQMD) threshold for industrial facilities. ~~when excluding the GHG emissions of the electricity supply; this impact would be~~ After full implementation of Project-specific mitigation, GHG emissions and climate change impacts would be reduced to less than significant. The GHG emissions attributable to the electricity supply are subject to control through California's Renewable Portfolio Standard (RPS) Program, where the electricity provider is obligated to reduce emissions thereby demonstrating compliance with the RPS targets. Under the No Impact Alternative (Alternative 1), no Project-related GHG emissions would occur. Under the Reduced Project Alternative (Alternative 2), GHG emissions would not exceed the SCAQMD threshold and therefore would result in a less-than-significant impact without the need for mitigation.

Construction-Related and Operations-Related Greenhouse Emissions Impacts

Construction and operational GHG emissions would be caused by construction vehicles and equipment and during operations from mobile sources, energy sources, area sources, water supply, solid waste, and onsite cargo-handling equipment. For the Proposed Project, the quantities of GHG emissions would ~~be below~~ exceed the SCAQMD threshold. ~~when excluding the GHG emissions of the electricity supply, resulting in a less-than-significant impact~~ A mitigation measure requiring ~~GHG reductions~~ carbon offsets to be purchased and retired (MM GHG-1) would reduce the impact to less than significant (Impact GHG-1). The No Project Alternative (Alternative 1) would have no impact. Impacts would be less than significant for the Reduced Project Alternative (Alternative 2) and no mitigation is necessary. All alternatives would conform with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

3.3.1. Introduction

This section includes a description of the affected environment, as it pertains to GHG emissions, and predicted impacts from construction and operation of the Proposed Project and alternatives. Emission calculations are provided in ~~Partially Revised and Recirculated Draft~~ Final EIR Appendix B1.

3.3.2. Environmental Setting

The global climate depends on the presence of naturally occurring GHGs to provide what is commonly known as the "greenhouse effect" which allows heat radiated from the Earth's surface to warm the atmosphere. The greenhouse effect is driven mainly by water vapor, aerosols, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and other constituents. Globally, the presence of GHG affects temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity. Human activity directly contributes to emissions of the anthropogenic GHGs, including CO_2, primarily from the use of fossil fuels as a source of energy.

3.3.2.1. Greenhouse Gases

Effects of GHG Emissions. Changing temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity provide indicators and evidence of the effects of climate change. From 1950 onward, relatively comprehensive data sets of observations are available. Research by California's Office of Environmental Health Hazard Assessment (OEHHA) documents climate change indicators by categorizing the effects as: changes in California's climate; impacts to physical systems including oceans, lakes, rivers, and snowpack; and impacts to biological systems including humans, vegetation, and wildlife. The primary observed changes in California's climate include increased annual average air temperatures, more-frequent extremely hot days and nights, and increased severity of drought. Impacts to physical systems affected by warming temperatures and changing precipitation patterns show decreasing snowmelt runoff, shrinking glaciers, and rising sea levels. Impacts to terrestrial, marine, and freshwater biological systems, with resulting changes in habitat, agriculture, and food supply are occurring in conjunction with the potential to impact human well-being (OEHHA, 2018).

California GHG Emissions Trends. California first formalized a strategy to achieve GHG reductions in 2008, when California produced approximately 484 million metric tons of CO_2 equivalent ($MMTCO_2e$) according to the official California Air Resources Board (CARB) inventory (CARB, 2023). The State's economy-wide emissions have been declining in recent years. California's sources of GHG emitted approximately 381 $MMTCO_2e$ in 2021 (CARB, 2023), less than ten percent of the U.S. GHG emissions total for 2019 of 6,577 $MMTCO_2e$.

3.3.3. Applicable Regulations

3.3.3.1. Federal Regulations

United States Environmental Protection Agency GHG Mandatory Reporting Program (40 CFR Part 98).

This rule requires mandatory reporting of GHG emissions for industrial facilities and power plants that emit more than 25,000 $MTCO_2e$ per year. The reporting program (40 CFR Part 98.300, Subpart DD) applies to electric and transmission distribution equipment that use high global warming potential gases, including sulfur hexafluoride (SF_6), for insulation. Currently, there are no federal regulations limiting GHG emissions from the types of sources that would occur with the Proposed Project. The circuit breakers and gas switches related to electric power (substation) may be sources of GHG subject to reporting due to the leakage of SF_6.

3.3.3.2. State Regulations

California Global Warming Solutions Act of 2006 (Assembly Bill 32)

Assembly Bill (AB) 32 required that California's GHG emissions be reduced to 1990 levels by 2020. The reduction is being accomplished through an enforceable statewide cap on global warming emissions beginning in 2012. AB 32 directs CARB to develop regulations and a mandatory reporting system to track and monitor global warming emissions levels (AB 32, Chapter 488, Statutes of 2006). CARB must update the AB 32 Scoping Plan at least every 5 years. Most recently, CARB approved the 2022 Scoping Plan Update in December 2022 (CARB, 2022), which outlines a roadmap to achieve carbon neutrality by 2045.

In passing AB 32, the California Legislature found that:

> *Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.*

Other major Executive Orders, legislation, and regulations adopted for the purpose of reducing GHG emissions support the implementation of AB 32 and California's climate goals, as described below.

California Governor's Executive Orders on GHG Emissions

In September 2018, Executive Order B-55-18 established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. The CARB was directed to develop the framework for implementing the goal of carbon neutrality. Executive Order B-30-15 (April 2015) established a California GHG reduction target of 40 percent below 1990 levels by 2030. One purpose of this interim target is to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050 (Executive Order

S-3-05, June 2005). This executive order also specifically addresses the need for climate adaptation and directs state agencies to update the California Climate Adaptation Strategy to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change. Senate Bill 32 (SB 32) of 2016 codified this GHG emissions target to 40 percent below the 1990 level by 2030.

California Renewables Portfolio Standard (RPS) Program

Electric utilities in California must procure a minimum quantity of the sales from eligible renewable energy resources as specified by RPS requirements. The Clean Energy and Pollution Reduction Act of 2015 (Senate Bill 350 [SB 350]) established California's state policy objectives on long-term energy planning and procurement as signed into law on October 7, 2015. The 100 Percent Clean Energy Act of 2018 (Senate Bill 100 [SB 100]) revised the RPS targets to establish the policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

With SB 350 and SB 100, California's objectives include:

- To set the RPS for the procurement of California's electricity from renewable sources at 33 percent by 2020, 50 percent by 2026, and 60 percent by 2030;
- To plan for 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045; and
- To double the energy efficiency savings in electricity and natural gas end uses by retail customers by 2030.

The Clean Energy, Jobs, and Affordability Act of 2022 (SB 1020) added interim targets for renewable energy targets for electricity sales and procurement. The targets for renewable energy and zero-carbon energy retail sales of electricity to California end-use customers were set at 90 percent by 2035 and 95 percent by 2040 (CARB, 2022).

California Climate Crisis Act of 2022 (AB 1279)

AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The CARB 2022 Climate Change Scoping Plan outlines how carbon neutrality can be achieved by reducing anthropogenic GHG emissions while expanding actions to capture and store carbon through California's natural and working lands and using a variety of mechanical approaches (CARB, 2022).

Cap-and-Trade Program (17 CCR 95801 to 96022)

The California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Program) was initially approved by CARB in 2011. The Cap-and-Trade Program applies to covered entities that fall within certain source categories, including electric utilities, petroleum refiners, and suppliers of transportation fuels, and is triggered when facility emissions exceed 25,000 $MTCO_2e$ in a year. The covered entities must hold compliance instruments sufficient to cover the actual GHG emissions, as evidenced through the CARB's Mandatory Reporting Regulation requirements. This means that the suppliers of electricity, such as the Los Angeles

Department of Water and Power (LADWP), and providers of transportation fuels bear the GHG compliance obligation in the Cap-and-Trade Program for the GHG emissions from the electricity supply and from the use of transportation fuels in motor vehicle and off-road equipment.

3.3.3.3. Local Regulations

San Pedro Bay Ports Clean Air Action Plan

In 2017, the Port of Long Beach and Port of Los Angeles adopted the Clean Air Action Plan (CAAP) Update (SPBP, 2017), which outlines strategies to reduce pollution from port-related sources. The document provides guidance for accelerating progress toward a zero-emission future for the Port of Los Angeles. It includes strategies to reduce pollution from transportation and cargo-handling equipment. The CAAP aims to reduce GHGs from port-related sources to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The CAAP also outlines a 10 in a million excess residential cancer risk for individual port development projects.

Port of Los Angeles Clean Truck Program (CTP)

As part of the San Pedro Bay Ports CAAP, the Clean Truck Program (CTP) was established in 2008, and the 2017 CAAP Update reflects the early actions taken to comply with State law (SPBP, 2017). The CTP establishes efforts leading to an ultimate goal of a zero-emissions on-road drayage truck fleet by 2035 (SPBP, 2017). All drayage trucks entering port terminals must comply with the State law regulating drayage trucks and must comply with the provisions of the Port of Los Angeles Tariff Section 20: Clean Air Action Plan – General Rules & Regulations. As of 2018, new trucks entering the Port's Drayage Truck Registry (PDTR) must have a 2014 engine model year or newer. Existing trucks already in the PDTR prior to 2018 can continue to operate in the Port. As of April 1, 2022, all combustion engine heavy-duty trucks entering Port terminals are charged a rate to enter with limited exemptions for trucks that are ~~not~~ certified to meet the State's low NOx standard and exemptions for zero-emission trucks~~or better are charged a rate to enter. As of 2020, all heavy-duty trucks entering Port terminals that are not certified to meet the State's near-zero standard or better are charged a rate to enter. Existing trucks already in the PDTR can continue to operate in the Port.~~ The CTP has reduced pollution from harbor trucks by more than 90 percent since its adoption.

City of Los Angeles Green New Deal Sustainable City pLAn

The Port has adopted the City of Los Angeles Sustainable City pLAn (City of Los Angeles, 2019). The Plan contains goals for the city including in areas of local solar, energy efficient buildings, carbon and climate leadership, green jobs, preparedness and resiliency, air quality, and environmental justice. The following targets from the pLAn would be applicable to the proposed Project:

- Reduce vehicle miles traveled per capita by at least 13% by 2025; 39% by 2035; and 45% by 2050.
- Reduce port related GHG emissions by 80% by 2050.
- Reduce industrial emissions by 38% by 2035; and 82% by 2050.

City of Los Angeles General Plan

The City of Los General Plan Health, Wellness, and Equity Element and Air Quality Element (City of Los Angeles, 2021) contains the following objectives and policies related to GHG emissions that are applicable to the Proposed Project:

Objective AQ 1.1	It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan [AQMP], increase traffic mobility, and sustain economic growth citywide.
Objective AQ 4.2	It is the objective of the City of Los Angeles to reduce vehicle trips and vehicle miles traveled associated with land use patterns.
Policy AQ 4.2.5	Emphasize trip reduction, alternative transit, and congestion management measures for discretionary projects.
Objective AQ 5.1	It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.
Policy AQ 5.1.1	Make improvements in Harbor and airport operations and facilities in order to reduce air emissions.
Policy AQ 5.1.2	Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.
Policy AQ 5.1.4	Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.

3.3.4. Impacts and Mitigation Measures

3.3.4.1. Methodology

All construction- and operation-related GHG emissions are quantified based on the best available forecast of activities. This analysis uses the California Emissions Estimator Model (CalEEMod; version 2022.1.1) software developed by the California Air Pollution Control Officers Association (CAPCOA). This is the most recent online version of the CalEEMod software, and it relies upon mobile source emission factors from the CARB OFFROAD2017 inventory and EMFAC2021 models. Spreadsheet analysis of emissions from diverted truck travel augments the CalEEMod analysis for additional miles travelled by the drayage truck fleet mix in the CARB's EMFAC2021 (v1.0.2).

Where Proposed Project-specific design features are not yet defined, default and typical settings from CalEEMod are used, as published in the CalEEMod User's Guide and supporting appendices (CAPCOA, 2022). ~~Partially Revised and Recirculated Draft~~Final EIR Appendix B1, Air Quality/GHG Emissions Calculations, provides details on the construction and operational assumptions for the Proposed Project and resulting emissions estimates used in this analysis.

3.3.4.2. Geographic Boundaries

For the purpose of assessing GHG impacts under CEQA, GHG emissions of the Proposed Project and alternatives were calculated within the South Coast Air Quality Management District (SCAQMD) boundaries. Complete trip lengths were used for construction workers, vendors, and hauling trips.

3.3.4.3. CEQA Baseline

State CEQA Guidelines, Section 15125, subdivision (a), provides that an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation and Initial Study (NOP/IS) is published (~~Draft~~ Final EIR Appendix A). Since the NOP/IS was released in December 2023, the LAHD has determined that 2023 is the baseline year for the CEQA analysis. In 2023, the baseline conditions for the Proposed Project include the existing conditions of the site, which consists of an unoccupied, unused parcel. No construction or operations currently occur. The Proposed Project would represent a new use at the site and generate new chassis storage/support and/or wheeled empty container storage activities at the site, including emissions from both passenger vehicles and trucks.

3.3.4.4. Thresholds of Significance

State CEQA Guidelines Appendix G (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387) CEQA Checklist suggests two criteria for determining the significance of impacts related to GHG emissions:

Would the Project:

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

(b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Accordingly, the Proposed Project or alternative would have a significant impact if it would:

GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2: Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

The guidelines do not specify significance thresholds and allow the lead agencies discretion in how to address and evaluate significance based on these criteria. To provide guidance to local lead agencies regarding determining significance for GHG emissions in CEQA documents, SCAQMD convened the GHG CEQA Significance Threshold Working Group. Members of the working group included government agencies that implement CEQA and representatives from various stakeholder groups that provide input to SCAQMD staff members regarding developing the GHG CEQA significance thresholds.

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal regarding an interim GHG significance threshold for projects where SCAQMD is lead agency. For industrial projects, a significance threshold of 10,000 $MTCO_2e$/year was established. Construction GHG emissions, amortized over project life, are required to be included in a project's annual GHG emissions totals (SCAQMD, 2008). LAHD has determined that the SCAQMD-adopted 10,000 $MTCO_2e$/year threshold is suitable for all LAHD projects for the following reasons:

- The SCAQMD industrial source threshold is appropriate for projects with future operations continuing as far out as 2050. The SCAQMD threshold development methodology (SCAQMD, 2008) used Executive Order S-3-05 emission reduction

targets as the basis in developing the threshold, with the AB 32 reduction requirements (2020) incorporated as a subset of Executive Order S-3-05. Executive Order S-3-05 established an emission reduction target of 80 percent below 1990 levels by 2050.

- The SCAQMD industrial source threshold is appropriate for projects having both stationary and mobile sources, both of which are components of LAHD projects. CAPCOA guidance (CAPCOA, 2008) considers industrial projects to include substantial GHG emissions associated with mobile sources. SCAQMD, on industrial projects for which it is the lead agency, uses the 10,000 $MTCO_2e$/year threshold to determine CEQA significance by combining a project's stationary source and mobile source emissions. Although the threshold was originally developed for stationary sources, SCAQMD staff views the threshold as conservative for projects with both stationary and mobile sources because it is applied to a larger set of emissions and therefore captures a greater percentage of projects than would be captured if the threshold was only used for stationary sources (SCAQMD, 2016). For example, in one of its recent EIRs, the SCAQMD applied the 10,000 $MTCO_2e$ /year threshold to a refinery project where the mobile source emissions would increase and the stationary source emissions (combined direct and indirect) would decrease relative to baseline. The mobile source emissions included construction equipment, on-road vehicles, and on and off-site rail transport. Moreover, in the same EIR, the SCAQMD (2016) also applied the 10,000 $MTCO_2e$ /year threshold to its list of related cumulative projects, two of which were LAHD projects (SCIG and ILWU Local 13 Dispatch Hall) with dominant mobile source emissions. The SCAQMD also specifically approved the use of the 10,000 $MTCO_2e$ /year threshold on another current Port CEQA project dominated by mobile sources (LAHD, 2017).
- The SCAQMD industrial source threshold is appropriate for projects with sources that use primarily diesel fuel. Although most of the sources that were considered by the SCAQMD (2008) in the development of the 10,000 $MTCO_2e$ /year threshold are natural gas-fueled, both natural gas and diesel combustion produce CO_2 as the dominant GHG (The Climate Registry, 2024). Furthermore, the conversion of all GHG species into a CO_2e ensures that the GHG emissions from any source, regardless of fuel type, can be evaluated equitably.
- The SCAQMD industrial source threshold is conservative for LAHD projects. Based on the 10,000 $MTCO_2e$ /year threshold, it would capture approximately 90 percent of regulated, permitted industrial facilities subject to the SCAQMD's Annual Emission Reporting (AER) program (SCAQMD, 2024). LAHD projects subject to CEQA review usually far exceed this threshold because of their large size and large number of mobile sources such as oceangoing vessels, drayage trucks, trains, and cargo handling equipment. A review of LAHD CEQA documents certified between 2007 and 2016 (GHG emissions were not quantified in Port CEQA documents before 2007) found that the 10,000 $MTCO_2e$ /year threshold would have captured 98 percent of LAHD project CO_2e emissions (LAHD, 2016).

After considering these guidelines and LAHD-specific climate change impact issues, LAHD has set the following thresholds for use in this EIR to determine the

significance of Proposed Project-related GHG impacts. The Proposed Project or alternative would create a significant GHG impact if it:

GHG-1: Generates GHG emissions that, either directly or indirectly, exceed the SCAQMD 10,000 $MTCO_2e$/year threshold

Impacts under GHG-1 are determined by comparing the combined amortized construction and future operational emissions with the baseline scenario. Total construction emissions are amortized over the life of the Proposed Project or alternative and included in the CEQA impact determination. As noted above, State CEQA Guideline Section 15064.4(b) provides that one factor to be considered in assessing the significance of GHG emissions on the environment is "the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions."

Several state, regional and local plans have been developed that set goals for the reduction of GHG emissions over the next few years and decades. Some of these plans and policies (notably, EO S-3-05 and AB 32) were taken into account by the SCAQMD in developing the 10,000 $MTCO_2e$/year threshold. However, no regulations or requirements have been adopted by relevant public agencies to implement those plans for specific projects, within the meaning of State CEQA Guidelines Section 15064.4(b)(3). Consequently, no CEQA significance assessment based upon compliance with such regulations or requirements can be made for the Proposed Project. Nevertheless, for the purpose of disclosure, LAHD has considered for informational purposes only, whether the Proposed Project activities, features, mitigations and lease measures are consistent with federal, state or local plans, policies or regulations for the reduction of GHG emissions, as set forth below:

Finally, State CEQA Guidelines Section 15126.2(a) identifies the need to evaluate potential impacts of locating development in areas that are vulnerable to climate change effects. The EIR "should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas)." Although no significance thresholds are defined for evaluating the potential impacts of locating development in areas that are vulnerable to climate change effects, the analysis addresses this evaluation qualitatively.

For determining significance of the impact on the environment caused by GHG emissions, the Proposed Project GHG emissions are compared with a screening threshold of 10,000 $MTCO_2e$/year developed by the SCAQMD for industrial facilities (SCAQMD, 2023).

3.3.5. Impact Analysis

3.3.5.1. Proposed Project

Impact GHG-1: Would the Proposed Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction and Operation

The Proposed Project would generate GHG emissions from construction activities, operational transportation, energy, waste disposal, and area sources (such as on-site equipment). The activities associated with the Proposed Project include mobilizing construction equipment, crews, and materials, and would require use of motor vehicles and off-road equipment during all construction activities and clean-up. These activities would cause GHG emissions due to fuels used by the construction vehicles and off-road equipment. The different sources include diesel-powered off-road equipment, gasoline-powered construction vehicles and equipment including on-highway trucks and autos for moving crews, equipment, materials, and water and for fuel delivery, and helicopters. Equipment and motor vehicles would directly emit CO_2, CH_4, and N_2O due to fuel use and combustion.

The resulting one-time quantity of GHG caused by construction would be 7,046 ~~3,291~~ $MTCO_2e$ (~~Partially Revised and Recirculated Draft~~ Final EIR Appendix B1, Air Quality/GHG Emissions Calculations) emitted over the construction duration of approximately 24 months. Haul truck travel distances to export soil would vary, averaging 80 miles per one-way trip, and emissions from trucks hauling soil exports would be the predominant source of construction GHG. To consider the overall effect of construction GHG emissions over the anticipated useful life of the facilities, the SCAQMD recommends assuming a 30-year life for amortizing total construction GHG emissions. The amortized construction GHG emissions rate would be 234.9 ~~109.7~~ $MTCO_2e$/-year, based on the one-time construction-phase quantity of 7,046 ~~3,291~~ $MTCO_2e$ divided over 30 years.

Long-term operations of the Proposed Project would generate GHG emissions from mobile sources, energy sources, area sources, water supply, solid waste, and on-site cargo-handling equipment (assumed to be diesel-powered in the opening year [2029~~2027~~]). The analysis also includes the potential additional vehicle-miles traveled from diverting existing truck trips, which are not new truck trips generated to/from the POLA-POLB. The cargo-handling equipment would generate approximately 2,389 ~~2,388~~ $MTCO_2e$/year in operational-phase GHG emissions under opening year (2029~~2027~~) conditions, and electrification of cargo-handling activities required by Project Feature (PF) AQ-1 (*Zero-Emissions Operational Equipment*) would reduce the on-site cargo-handling equipment emissions to zero before the full buildout year (2049~~2046~~).

Operational energy consumption includes electricity use that would increase between the opening year and full buildout year with increased electrification of cargo-handling equipment. Emission factors for the electricity supply rely on CalEEMod defaults for Los Angeles Department of Water and Power and are conservatively assumed to remain constant between the Project opening year and full buildout year (CAPCOA, 2022). Consistent with RPS Program requirements, emission factors would decline as the electricity supply reflects increasing procurement of renewable energy by the utility.

Table 3.3-1 shows emissions from three components of ~~A~~additional drayage truck ~~travel~~activity: off-site, ~~for the trucks diverted to the site and~~ on-site, and on-site idling, could cause up to 10,172 ~~6,346~~ $MTCO_2e$/year for the opening year (2029~~2027~~) and 13,896 ~~8,464~~ $MTCO_2e$/year for the full buildout year (2049~~2046~~). Prior to Proposed Project buildout (2049~~2046~~), emissions from the truck trips served by the site would trend towards lower emissions than in the opening year as the CTP progresses towards the CAAP goal of a 100 percent transition to zero-emission trucks by 2035. Reductions related to meeting the 2035 zero-emission truck goal, however, are not included in the quantification presented.

The amortized construction and annual operational GHG emissions associated with the Proposed Project are summarized in Table 3.3-1. As shown, construction and operation of the Proposed Project would generate a combined total of approximately 13,398 ~~9,457~~ $MTCO_2e$/year under opening year (2029~~2027~~) and 15,630 ~~10,074~~ $MTCO_2e$/year under full buildout year (2049~~2046~~). The largest contributor to annual GHG emissions would be due to ~~off-site~~ truck travel during operations.

The total annual GHG emissions from the Proposed Project in the opening year (2029~~2027~~) and full buildout year (2049~~2046~~) added to the amortized construction emissions are shown in Table 3.3-1.

Table 3.3-1: Proposed Project Annual GHG Emissions

Activity	$MTCO_2e$/year
Amortized Construction Emissions	234.9 ~~109.7~~
Opening Year (2029~~2027~~)	---
Worker Vehicles (2029~~2027~~)	308 ~~319~~
Cargo-Handling Equipment (2029~~2027~~)	2,389 ~~2,388~~
Electricity Use (2029~~2027~~)	282
Other Energy, Area Sources (2029~~2027~~)	13
Off-Site, Truck Trips (2029~~2027~~)	4,426 ~~4,536~~
On-Site, Truck Trips (2029~~2027~~)	4,201 ~~1,146~~
On-site, Truck Idling (2029~~2027~~)	1,545 ~~664~~
Total Annual Emissions (2029~~2027~~) – Amortized Construction + Operations	**13,398 ~~9,457~~**
Full Buildout Year (2049~~2046~~)	---
Worker Vehicles (2049~~2046~~)	335 ~~337~~
Cargo-Handling Equipment (2049~~2046~~)	0
Electricity Use (2049~~2046~~)	1,151
Other Energy, Area Sources (2049~~2046~~)	13
Off-Site, Truck Trips (2049~~2046~~)	5,710 ~~5,799~~
On-Site, Truck Trips (2049~~2046~~)	5,316 ~~1,431~~
On-site, Truck Idling (2049~~2046~~)	2,870 ~~1,234~~
Total Annual Emissions (2049~~2046~~) – Amortized Construction + Operations	**15,630 ~~10,074~~**

Source: ~~Partially Revised and Recirculated Draft~~Final EIR Appendix B1, Air Quality/GHG Emissions Calculations.
Note: Emissions may not precisely add up due to rounding.

The GHG emissions attributable to the electricity supply for the Proposed Project are subject to control through the RPS Program, and LADWP is obligated to reduce GHG emissions to demonstrate compliance with the targets, as discussed in Section 3.3.3.2, *State Regulations*.

The electricity supply is subject to the procurement actions taken by LADWP, which has approved a 2022 Power Strategic Long-Term Resource Plan (SLTRP). The 2022 SLTRP is known as the "LA100 Plan" as it establishes a roadmap to implement a City Council motion to achieve an electricity supply that is 100 percent carbon-free by 2035, in advance of 100 Percent Clean Energy Act of 2018 (SB 100) targets of zero-carbon resources for commercially available electricity by 2045. These actions are anticipated to achieve the SB 100 targets in advance of the Proposed Project full buildout year (2049~~2046~~) and would have the effect of reducing the GHG emissions associated with electricity use throughout the State and City. As such, emissions associated with electricity are estimated to trend downward and are not included in the impact assessment in the full buildout year (2049~~2046~~) as existing legislature will reduce those emissions in future years. The RPS Program and the provisions of the Cap-and-Trade Program applicable to suppliers of electricity are previously approved programs with regulations adopted for the purpose of reducing GHG emissions. The Project's use of electricity supplied by LADWP would not result in a considerable incremental contribution to the cumulative effect of GHG emissions because LADWP must comply with the RPS that requires increasing renewable energy procurement over time to avoid and lessen the effects of GHG emissions from electricity generation.

As shown in Table 3.3-2, the total annual GHG emissions from the Proposed Project in the opening year (2029~~2027~~) with electricity included and full buildout year (2049~~2046~~) without electricity included, due to future attainment of SB 100, would ~~not~~ exceed the screening threshold of 10,000 $MTCO_2e$/year~~; therefore, impacts would be less than significant~~.

Table 3.3-2: Proposed Project Annual GHG Emissions~~, Excluding Electricity Supply~~ in Opening Year and Full Buildout Year

Activity	$MTCO_2e$/year
Amortized Construction Emissions	234.9 ~~109.7~~
Opening Year (2029~~2027~~)	---
Total Annual Emissions (2029~~2027~~) – Amortized Construction + Operations including Electricity Use	**13,398 ~~9,457~~**
Threshold	10,000
Exceeds Threshold?	**Yes ~~No~~**
Full Buildout Year (2049~~2046~~)	---
Total Annual Emissions (2049~~2046~~) – Amortized Construction + Operations including Electricity Use	15,630 ~~10,074~~
Total Annual Emissions (2049~~2046~~) – Amortized Construction + Operations without Electricity Use	**14,479 ~~8,923~~**
Threshold	10,000
Exceeds Threshold?	**Yes ~~No~~**

Source: SCAQMD, 2023; ~~Partially Revised and Recirculated Draft~~Final EIR Appendix B1, Air Quality/GHG Emissions Calculations.

Impact Determination

Table 3.3-2 shows that the Proposed Project GHG emissions, when excluding those attributable to the electricity supply that are subject to control through the RPS Program, would ~~not~~ exceed the 10,000 $MTCO_2e$/year threshold. Accordingly, ~~no mitigation would be required for~~ the impact of the Proposed Project GHG emissions would be significant.

Project Features and Mitigation Measures

~~No~~ Project-specific mitigation is required to reduce GHG emissions. LAHD has developed a mitigation measure that would mitigate the Proposed Project's annual GHG emissions in excess of LAHD's significance threshold of 10,000 $MTCO_2e$/year.

- **MM GHG-1: GHG Reduction Offsets.** The ~~Project~~ Tenant(s) and/or LAHD shall be required to purchase and retire carbon offsets related to activities that reduce, avoid, destroy, or sequester an amount of GHG emissions in an off-site location to offset the equivalent amount of GHG emissions generated by the Project in excess of ~~the~~ LAHD's significance threshold of 10,000 metric tons CO_2 equivalent ($MTCO_2e$) per year. From the first year of the Permit, through the end of the term of the Permit, the ~~Project~~ Tenant(s) and/or LAHD shall purchase and retire carbon offsets each year in an amount that would be the equivalent of the Project's estimated residual GHG emissions. The estimated residual emissions for each calendar year shall be based upon the calculations ~~using the same methodology used in this assessment~~ in Appendix B1 of the Final EIR prepared for the Project except as adjusted in accordance with paragraph (a) or (b), below.

  The LAHD is in the process of developing a Greenhouse Gas Program. The Program shall be used for GHG-reducing projects and programs approved by LAHD. If that Program is established during the term of the Permit, the ~~Project~~ Tenant(s) and/or LAHD shall have the option to offset the required amount of GHG emissions through a funding contribution to the Greenhouse Gas Program rather than towards purchasing carbon offsets from a CARB-recognized registry.

  While the LAHD Greenhouse Gas Program is currently under development, the ~~Project~~ Tenant(s) and/or LAHD shall purchase and retire carbon offsets from a CARB-recognized offset registry as follows:

  Carbon offsets: The ~~Project~~ Tenant(s) and/or LAHD shall purchase and retire carbon offsets from a CARB-recognized registry to ensure that offsets will result in real, permanent, additional, quantifiable, verifiable, and enforceable reductions. The carbon offsets shall be verifiable ~~by LAHD~~ and enforceable in accordance with the registry's applicable standards, practices, or protocols.

  The order of priority for purchasing (any one or more) carbon offsets shall be considered as follows:

  (i) Originating within the local area;

  (ii) Originating within the South Coast Air Basin;

  (iii) Originating within the state of California; or

  (iv) If sufficient local and in-state offsets are not available, conforming national offsets registered with a CARB-recognized registry ~~shall be purchased~~.

Adjustment of the Project's Required Offsets through Other Verified GHG Emission Reductions: The ~~Project~~ Tenant(s) and/or LAHD may pursue the following modifications to the Project's total estimated GHG emissions identified in this measure. These modifications may be pursued in conjunction with or independent of each other on an up to annual basis.

(a) Adjustment in GHG Emissions

In the event of changes in activities, efficiency, reduced operations, regulations or for any other purpose, an adjustment of the required carbon offsets may be requested based on an evaluation of actual GHG emissions rather than future projected GHG emission calculations in the Final EIR. If the actual annual GHG emissions do not exceed the significance threshold of 10,000 $MTCO_2e$ per year, no carbon offsets shall be required. To adjust the required number of carbon offsets for purchase by the Tenant(s), the Tenant(s) shall make a request in writing to the LAHD for review and approval for the calendar year under consideration and shall submit a report within 60 days that quantifies the actual GHG emissions by an expert or an independent, qualified third-party. The evaluation of actual GHG emissions must be performed using acceptable industry standards and protocols for all sources that were included in the Project's GHG emissions calculations under Impact GHG-1. LAHD review shall occur within 30 days of receipt of the submitted report. Any expenses incurred by LAHD in processing the request, including retaining an independent third-party verifier to peer review the report, shall be borne by the Tenant(s). Alternatively, LAHD may implement a review for its own purpose, subject to the same quantification process described above, to adjust GHG emissions at any time during the life of the Project.

or

(b) Implementation of Additional GHG Reduction Methods

In addition, the ~~Project~~ Tenant(s) may request a reevaluation of required carbon offsets to be purchased according to this paragraph. The Tenant(s) may implement different and additional GHG reduction methods if new technology and/or other feasible measures become available during the term of the Permit. To adjust the ~~Project's~~ required number of carbon offsets for purchase, the Tenant(s) shall identify such additional GHG reduction actions and must quantify the GHG emission reductions from these GHG reduction actions by an independent, qualified third-party verifier. Once the GHG reduction actions are found to be feasible and are reviewed and approved by LAHD staff, the Tenant(s) may request that LAHD reduce its required purchase of carbon offsets by the equivalent amount of demonstrated reduction. Any expenses incurred by LAHD in processing the request, including retaining a third-party verifier, shall be borne by the Tenant(s).

Additionally, to reduce air pollutant emissions, the~~The~~ Proposed Project would ~~, however,~~ require the use of zero-emission operational equipment by January 1, 2030 with the following Project Feature, which would also reduce operational GHG emissions.

PF AQ-1: Zero-Emission Operational Equipment. All yard equipment would be required to be zero emissions by January 1, 2030. Any diesel operations would cease by December 31, 2029, and would be tracked and enforced once an entitlement is issued. A 100 percent transition to zero emissions by January 1, 2030 shall be required, and any

non-conforming equipment used or acquired after this date would be considered a breach of the Permit/Lease conditions.

Additionally, MM AQ-1 (*Zero-Emission Cargo-Handling Equipment*) identified for air quality impacts in Section 3.1, *Air Quality and Health Risk*, would provide for early electrification of cargo-handling equipment, depending on feasibility, and this measure would also reduce ~~which may also improve~~ operational GHG emissions.

MM AQ-1: Zero-Emission Cargo-Handling Equipment. At the start of operation, Tenant shall utilize zero-emission ~~off-road~~ cargo-handling equipment (CHE) for Project operations. If the Tenant determines that specific CHE types cannot feasibly be deployed due to operational or infrastructure constraints, the Tenant shall provide a written report detailing the evidence and supporting documentation concerning feasibility and other relevant factors within 90 calendar days. The feasibility determination shall be subject to mutual agreement between the Board of Harbor Commissioners and Tenant, which shall not be unreasonably withheld by Tenant.

All CHE operated on site shall be zero emissions starting January 1, 2030.

In the event an a~~A~~pplicable l~~L~~aw comes into effect that requires the cargo-handling equipment used on site to be zero-emission equipment, the a~~A~~pplicable l~~L~~aw would govern.

Residual Impacts

Implementation of MM GHG-1 (*GHG Reduction Offsets*) would require the ~~Project~~ Tenant(s) and/or LAHD to reduce GHG emissions and provide evidence of the reductions with carbon offsets for the quantity of the Project's GHG emissions generated in excess of the LAHD's significance threshold of 10,000 $MTCO_2e$/year.

Table 3.3-3 shows the amount of GHG reduction offsets required by MM GHG-1 (*GHG Reduction Offsets*) for the Proposed Project, and the residual impact at 10,000 $MTCO_2e$/year. Impacts would be less than significant with mitigation.

Table 3.3-3: Proposed Project with Mitigation for GHG Reduction Offsets

Activity	$MTCO_2e$/year
Opening Year (2029)	
Proposed Project Annual Emissions (2029) – Amortized Construction + Operations including Electricity Use	13,398
MM GHG-1 Required GHG Reduction Offsets (2029)	(3,398)
Residual Proposed Project with Mitigation	**10,000**
Threshold	10,000
Exceeds Threshold?	No

Activity	$MTCO_2e$/year
Full Buildout Year (2049)	
Proposed Project Annual Emissions (2049) – Amortized Construction + Operations without Electricity Use	14,479
MM GHG-1 Required GHG Reduction Offsets (2049)	(4,479)
Residual Proposed Project with Mitigation	**10,000**
Threshold	10,000
Exceeds Threshold?	No

Source: SCAQMD, 2023; ~~Partially Revised and Recirculated Draft~~ Final EIR Appendix B1, Air Quality/GHG Emissions Calculations.

Impact GHG-2: Would the Proposed Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

Construction and Operation

Activities related to both construction and operation of the Proposed Project would emit GHG mostly through the use of transportation fuels that are within the policies of the State's AB 32 Climate Change Scoping Plan (CARB, 2022). The majority of emissions would be from mobile sources. Mobile sources of GHG, including the off-road equipment and on-road motor vehicles, are not directly subject to GHG controls, but would be users of transportation fuels from refiners and suppliers that are required to comply with CARB Cap-and-Trade and Low Carbon Fuel Standard regulations to reduce GHG emissions caused by the production and use of transportation fuels.

Table 3.3-~~4~~3 summarizes the consistency of the Proposed Project with key relevant GHG reduction strategies. As summarized in Table 3.3-~~4~~3, Proposed Project activities related to construction and operation would either be exempt from or would be required to comply with CARB rules and regulations to reduce GHG emissions. The Proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Table 3.3-~~4~~3: Applicable GHG Emissions Reduction Strategies

Strategy	Compliance with Strategy
State AB 32 Climate Change Scoping Plan Strategies (CARB, 2022)	
Limited Idling Time for Commercial Vehicles (13 CCR § 2485) and Off-Road Equipment (13 CCR § 2449)	The construction contractors and truck operators would be required to comply with applicable idling regulations for on-road vehicles during construction and operation. Additionally, the construction contractor and operators would be required to comply with applicable off-road equipment idling requirements during construction and operation.
Use of Low Carbon or Alternative Fuels (Low Carbon Fuel Standard)	The Project's primary source of GHG emissions is from transportation fuel use. The facility and facility users would use California fuels that are subject to the Low Carbon Fuel Standard regulations. While these regulations are new and have not yet caused a large penetration of low carbon/renewable fuels, over the Project life, GHG emissions from transportation and on-site equipment would be reduced as low carbon fuel supplies increase statewide.

Strategy	Compliance with Strategy
Electricity Use/Renewables Performance Standard	The Project's electricity would be supplied by Los Angeles Department of Water and Power, a California publicly owned utility that is subject to the Renewables Performance Standard, which requires utilities to steadily increase the procurement of renewable energy to reduce the GHG emissions of the electricity supply. Therefore, the electricity used at the Project site would comply with state electricity sector GHG reduction strategies.
Advanced Clean Trucks and Advanced Clean Fleets Regulations	These regulations establish goals for the manufacture and sales for electrification of California's heavy-duty truck fleet, although not yet enforceable. Regulations for drayage truck fleets would require use of electric or other zero-emission models of heavy-duty vehicles and retirement of older legacy drayage trucks as new models spread throughout the market in the future.
Port of Los Angeles and City of Los Angeles Plans and Strategies	
LA's Green New Deal / Sustainable City pLAn (City of Los Angeles, 2019)	The City of Los Angeles' Sustainable City pLAn is intended to guide operational, policy, and financial decisions to create a more sustainable Los Angeles. Although the Plan is mostly focused on city property, buildings, and public transportation, the plan includes the 80% from baseline emissions reduction goal and notes three primary GHG emissions reduction initiatives, two of which would apply to Project emission sources: - 100% zero-emissions cargo-handling equipment by 2030. - 100% zero-emissions on-road drayage trucks by 2035. Only drayage trucks registered in the Ports Drayage Truck Registry or having a day pass would be admitted to the Project site, and this would ensure compliance with the Ports' Clean Truck Program (SPBP, 2017). LAHD will address the implementation of the port-wide cargo-handling equipment emissions reduction initiative for all affected tenants. Implementation will include the replacement of existing fossil fuel powered cargo-handling equipment with electrically powered cargo-handling equipment and the use of renewable fuels to replace fossil fuel use. A goal for the facility would be compliance with this emissions reduction initiative by 2030.
San Pedro Bay Ports Clean Air Action Plan (CAAP) (SPBP, 2017)	The CAAP has several policy initiatives related to GHG emissions reductions. The policy initiatives that apply to the project's GHG emissions sources are the same as those listed above for the Sustainable City pLAn.
City of Los Angeles General Plan – Mobility Element (City of Los Angeles, 2016)	The City of Los Angeles General Plan, Mobility Element was developed to improve the way people, goods, and resources are moved in Los Angeles. The Proposed Project would be consistent with this General Plan Element.

Impact Determination

The Proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

3.3.5.2. Alternative 1 – No Project Alternative

Under this alternative, the Project site would remain unused. Like the CEQA baseline, the activities under the No Project Alternative (Alternative 1) are considered negligible in the foreseeable future as no future development has been permitted or approved.

Impact GHG-1: Would the No Project Alternative (Alternative 1) generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

In the No Project Alternative (Alternative 1), the Project would not be constructed. No construction or operations phase GHG emissions would occur.

Impact Determination

Since no construction or operation phase emissions would occur under the No Project Alternative (Alternative 1), there would be no impacts.

Mitigation Measures

Mitigation is not required.

Residual Impacts

There would be no residual impacts.

Impact GHG-2: Would the No Project Alternative (Alternative 1) conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

In the No Project Alternative (Alternative 1), the Project would not be constructed. No construction or operations phase GHG emissions would occur, and there would be no potential to conflict with an applicable plan, policy, or regulation for reducing GHG emissions.

Impact Determination

The No Project Alternative (Alternative 1) would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. There would be no impacts.

Mitigation Measures

Mitigation is not required.

Residual Impacts

There would be no residual impacts.

3.3.5.3. Alternative 2 – Reduced Project Alternative

In the Reduced Project Alternative (Alternative 2), the Project site area would be reduced from 89.2 acres to ~~52.7~~ 51.7 acres (71 acres [usable space]/2 + 16.2 acres other/outside loop), essentially utilizing half the usable space. Construction and operational activities would be identical to the Proposed Project, but with reduced intensity. Less asphalt concrete, stall striping, lighting, and fencing would be installed due to the reduced Project footprint.

Impact GHG-1: Would the Reduced Project Alternative (Alternative 2) generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

In the Reduced Project Alternative (Alternative 2), the usable site area would decrease by half. Since the area of Reduced Project Alternative (Alternative 2) is half that of the Proposed Project and since construction activities would be the same, with reduced intensity, the total GHG emissions associated with Reduced Project Alternative (Alternative 2) would be approximately half of ~~less than~~ the Proposed Project.

Impact Determination

Since construction and operation emissions would be approximately half ~~less than~~ that of the Proposed Project, the rate of annual GHG emissions would not exceed the 10,000 $MTCO_2e$/year threshold.~~,~~ The impacts from GHG emissions under the~~of~~ Reduced Project Alternative (Alternative 2) would be less than significant.

Mitigation Measures

No mitigation is required for the Reduced Project Alternative (Alternative 2); however, GHG emissions would be reduced with implementation of PF AQ-1 (*Zero-Emission Operational Equipment*) and MM AQ-1 (*Zero-Emission Cargo-Handling Equipment*). See Section 3.3.5.1, Proposed Project, under Impact GHG-1, for the full text of this Project Feature and mitigation measure.

Residual Impacts

Impacts would be less than significant.

Impact GHG-2: Would the Reduced Project Alternative (Alternative 2) conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

In the Reduced Project Alternative (Alternative 2), construction and operation activities at the site would emit GHG mostly through the use of transportation fuels that are within the policies of the Climate Change Scoping Plan. The majority of emissions would be from mobile sources – the off-road equipment and on-road motor vehicles that are not directly subject to GHG controls, but would be users of transportation fuels from refiners and suppliers that are required to comply with CARB Cap-and-Trade and Low Carbon Fuel Standard regulations to reduce GHG emissions. Through these programs, Reduced Project Alternative (Alternative 2) activities would either be exempt from or would be required to comply with CARB rules and regulations to reduce GHG emissions and

would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Impact Determination

The Reduced Project Alternative (Alternative 2) would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

3.3.5.4. Summary of Impact Determinations

Table 3.3-54 summarizes the CEQA impact determinations of the Proposed Project and alternatives related to GHG emissions. This table is meant to allow easy comparison of the potential impacts of the Proposed Project and alternatives. Identified potential impacts may be based on federal, state, or City of Los Angeles significance criteria, LAHD criteria, and the scientific judgment of the report preparers.

For each type of potential impact, the table provides the CEQA impact determination, applicable mitigation, and notes the residual impacts (i.e., the impact remaining after mitigation). All impacts, whether significant or not, are included in this table.

Table 3.3-54: Summary Matrix of Potential Impacts and Mitigation Measures for GHG Emissions

Alternative	Environmental Impacts	Impact Determination	Applied Mitigation Measures	Residual Impacts
Proposed Project	**GHG-1:** Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment	~~Less Than Potentially~~ Significant	**MM GHG-1:** GHG Reduction Offsets ~~Mitigation Not Required~~ **PF AQ-1:** Zero-Emission Operational Equipment **MM AQ-1:** Zero-Emission Cargo-Handling Equipment	Less Than Significant
	GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions	Less Than Significant	Mitigation Not Required	Less Than Significant
Alt 1 – No Project	**GHG-1**	No Impact	Mitigation Not Required	No Impact
	GHG-2	No Impact	Mitigation Not Required	No Impact

Alternative	Environmental Impacts	Impact Determination	Applied Mitigation Measures	Residual Impacts
Alt 2 – Reduced Project	**GHG-1**	Less Than Significant	Mitigation Not Required **PF AQ-1:** Zero-Emission Operational Equipment **MM AQ-1:** Zero-Emission Cargo-Handling Equipment	Less Than Significant
	GHG-2	Less Than Significant	Mitigation Not Required	Less Than Significant

3.3.5.5. Mitigation Monitoring

To reduce the impact of Proposed Project's GHG emissions, MM GHG-1 (*GHG Reduction Offsets*) would require offsets to be purchased and retired ~~sponsor activities to reduce, avoid, destroy, or sequester GHG emissions. The mitigation monitoring program below does not contain any mitigation measures, as none were found necessary~~Instead Additionally, for reducing air pollutant emissions, this section summarizes implementation of the applicable ~~Project Feature~~PF AQ-1 (*Zero-Emission Operational Equipment*) and MM AQ-1 (*Zero-Emission Cargo-Handling Equipment*), which would be applied to the Proposed Project and Reduced Project Alternative (Alternative 2) as a condition of approval. MM GHG-1 (*GHG Reduction Offsets*) would not apply to Alternative 2 (Reduced Project Alternative). Mitigation is not applicable to Alternative 1 (No Project).

Mitigation Measure	**MM GHG-1: GHG Reduction Offsets.** The ~~Project~~ Tenant(s) and/or LAHD shall be required to purchase and retire carbon offsets related to activities that reduce, avoid, destroy, or sequester an amount of GHG emissions in an off-site location to offset the equivalent amount of GHG emissions generated by the Project in excess of the LAHD's significance threshold of 10,000 metric tons of carbon dioxide equivalent (CO_2e) per year. From the first year of the Permit, through the end of the term of the Permit, the Tenant(s) and/or LAHD shall purchase and retire carbon offsets each year in an amount that would be the equivalent of the Project's estimated residual GHG emissions. The estimated residual emissions for each calendar year shall be based upon the calculations ~~using the same methodology used in this assessment~~ in Appendix B1 of the Final EIR prepared for the Project except as adjusted in accordance with paragraph (a) or (b), below. The LAHD is in the process of developing a Greenhouse Gas Program. The Program shall be used for GHG-reducing projects and programs approved by the Port of Los Angeles. If that Program is established during the term of the Permit, the ~~Project~~ Tenant(s) and/or LAHD shall have the option to offset the required amount of GHG emissions through a funding contribution to the Greenhouse Gas Program rather than towards purchasing carbon offsets from a CARB-recognized registry. While the LAHD Greenhouse Gas Program is currently under development, the ~~Project~~ Tenant(s) and/or LAHD shall purchase and

	retire carbon offsets from a CARB-recognized offset registry as follows: Carbon offsets: The ~~Project~~ Tenant(s) and/or LAHD shall purchase and retire carbon offsets from a CARB-recognized registry to ensure that offsets will result in real, permanent, additional, quantifiable, verifiable, and enforceable reductions. The carbon offsets shall be verifiable and enforceable in accordance with the registry's applicable standards, practices, or protocols. The order of priority for purchasing (any one or more) carbon offsets shall be considered as follows: (i) Originating within the local area; (ii) Originating within the South Coast Air Basin; (iii) Originating within the state of California; or (iv) If sufficient local and in-state offsets are not available, conforming national offsets registered with a CARB-recognized registry ~~shall be purchased~~. Adjustment of the Project's Required Offsets through Other Verified GHG Emission Reductions: The ~~Project~~ Tenant(s) and/or LAHD may pursue the following modifications to the Project's total estimated GHG emissions identified in this measure. These modifications may be pursued in conjunction with or independent of each other on an up to annual basis. *(a) Adjustment in GHG Emissions* In the event of changes in activities, efficiency, reduced operations, regulations or for any other purpose, an adjustment of the required carbon offsets may be requested based on an evaluation of actual GHG emissions rather than future projected GHG emission calculations in the Final EIR. If the actual annual GHG emissions do not exceed the significance threshold of 10,000 MTCO2e per year, no carbon offsets shall be required. To adjust the required number of carbon offsets for purchase by the Tenant(s), the Tenant(s) shall make a request in writing to the LAHD for review and approval for the calendar year under consideration and shall submit a report within 60 days that quantifies the actual GHG emissions by an expert or an independent, qualified third-party. The evaluation of actual GHG emissions must be performed using acceptable industry standards and protocols for all sources that were included in the Project's GHG emissions calculations under Impact GHG-1. LAHD review shall occur within 30 days of receipt of the submitted report. Any expenses incurred by LAHD in processing the request, including retaining an independent third-party verifier to peer review the report, shall be borne by the Tenant(s). Alternatively, LAHD may implement a review for its own purpose, subject to the same quantification process described above, to adjust GHG emissions at any time during the life of the Project. or *(b) Implementation of Additional GHG Reduction Methods* In addition, the ~~Project~~ Tenant(s) may request a reevaluation of required carbon offsets to be purchased according to this paragraph. The Tenant(s) may implement different and additional GHG reduction methods if new technology and/or other feasible measures

	become available during the term of the Permit. To adjust the ~~Project's~~ required number of carbon offsets for purchase, the Tenant(s) shall identify such additional GHG reduction actions and must quantify the GHG emission reductions from these GHG reduction actions by an independent, qualified third-party verifier. Once the GHG reduction actions are found to be feasible and are reviewed and approved by LAHD staff, the Tenant(s) may request that LAHD reduce its required purchase of carbon offsets by the equivalent amount of demonstrated reduction. Any expenses incurred by LAHD in processing the request, including retaining a third-party verifier, shall be borne by the Tenant(s).
Timing	Payable during operations on an annual basis.~~During operations.~~
Methodology	LAHD will include ~~MM GHG-1~~this mitigation measure in Permit(s)~~lease agreement(s)~~ with Tenant(s). LAHD shall monitor compliance every 12 months during the term of the Permit(s). ~~LAHD shall monitor implementation of mitigation measures during operation.~~

Project Feature	**PF AQ-1: Zero-Emission Operational Equipment.** All yard equipment would be required to be zero emissions by January 1, 2030. Any diesel operations would cease by December 31, 2029, and would be tracked and enforced once an entitlement is issued. A 100 percent transition to zero emissions by January 1, 2030 shall be required, and any non-conforming equipment used or acquired after this date would be considered a breach of the Permit/Lease conditions.
Timing	Prior to January 1, 2030.
Methodology	LAHD will include this Project Feature in ~~lease agreement~~Permit(s) with Tenant(s).

Mitigation Measure	**MM AQ-1: Zero-Emission Cargo-Handling Equipment.** At the start of operation, Tenant shall utilize zero-emission ~~off-road~~ cargo-handling equipment (CHE) for Project operations. If the Tenant determines that specific CHE types cannot feasibly be deployed due to operational or infrastructure constraints, the Tenant shall provide a written report detailing the evidence and supporting documentation concerning feasibility and other relevant factors within 90 calendar days. The feasibility determination shall be subject to mutual agreement between the Board and Tenant, which shall not be unreasonably withheld by Tenant. All CHE operated on site shall be zero emissions starting January 1, 2030. In the event an ~~A~~applicable ~~L~~law comes into effect that requires the cargo-handling equipment used on site to be zero-emission equipment, the ~~A~~applicable ~~L~~law would govern.
Timing	At the start of operations or no later than January 1, 2030 depending on feasibility.
Methodology	LAHD will include this mitigation measure in ~~lease agreement~~Permit(s) ~~the permit~~ with Tenant(s).

3.3.6. Sea Level Rise

An analysis of issues associated with future sea-level rise (SLR) is not required by CEQA. However, this consideration of the Project's vulnerability to SLR and the potential consequences related to that vulnerability is presented in this EIR for informational purposes.

3.3.6.1. Background

The adverse effects of global climate change, including SLR, represent a risk to coastal communities and resources now and for the foreseeable future. Sea levels will continue to rise due to the ocean's sustained response to the warming that has already occurred, and this will occur even if climate change mitigation succeeds in limiting surface air temperatures in the coming decades. Accordingly, facility planning in coastal areas must incorporate a consideration of likely SLR.

For the *Port of Los Angeles, the Sea Level Rise Adaptation Study* noted that mean sea levels have already risen four inches in the past 100 years (LAHD, 2018). The study characterized SLR as "a significant risk that challenges the long-term viability of this national asset. If left unmitigated, business operations will be temporarily impacted, international cargo may move elsewhere, and community/commercial or natural habitat assets could be destroyed."

The following discussion addresses two types of effects on coastal resources and surrounding communities driven by SLR. First, flooding of a project site due to SLR alone or SLR combined with extreme high tides and/or storm surge damaging facilities, resulting in financial loss and even injury or death to workers and visitors. Second, damage caused by flooding could result in releases to the environment of, for example, structural elements, hazardous materials, cargos, and raw materials. These releases could involve harbor waters, as elements are washed away, or the air, as tanks or other containers ruptured by flood waters release volatile materials to the air. These possibilities are considered below to the extent they would apply to the Project.

3.3.6.2. Methodology

The most relevant studies of SLR are the *State of California Sea Level Rise Guidance: 2024 Science & Policy Update* (OPC/OST, 2024) and the Port's adaptation study (LAHD, 2018). Both studies recognize the uncertainty of SLR projections, particularly beyond approximately 2050, and offer multiple potential future scenarios of SLR under different assumptions of GHG emissions, ice cap melting, and other factors. The State's study recommends selecting a level of risk aversion (low, intermediate-high, or high) in order to select an appropriate future SLR scenario. For the Proposed Project, a medium-high risk aversion may be appropriate, as the Proposed Project may be less adaptive to medium to high consequences if impacted by SLR. The State's study uses a high-emissions assumption through 2100 to estimate SLR. The Port's SLR estimates, which are based on an earlier National Research Council study, do not include consideration of risk aversion levels but do incorporate a high-emissions scenario. The Port's study considers horizon years of 2030, 2050, and 2100 and three scenarios of global warming (low, mid-range, high). The Port's study focuses on Port infrastructure by predicting inundation and flooding under various scenarios of SLR, high tides, and storm tides, whereas the State's study is a more general consideration of SLR alone along the California coast. To evaluate the effects of SLR on a project, the State's study recommends considering project

lifespan when selecting SLR scenarios. The Proposed Project would be expected to have a maximum service life of 25 years and is therefore assumed to operate beyond the full buildout year of 2049 ~~until 2046~~ but not out to year 2100. Therefore, only 2050 SLR estimates are used to estimate SLR-related impacts for the Proposed Project. The State's study for the medium-high risk aversion level, high-emissions scenario (i.e., greatest SLR) at the Los Angeles tide gauge predicts SLR of approximately 0.9 ft higher than the 2000 level by 2050 (OPC/OST, 2024 – Appendix 2, Table 11). The Port's study projects that under the high-emissions scenario, the sea level at the Port could rise 24 inches above the 2000 level by 2050.

3.3.6.3. Discussion

The Port's study shows that SLR alone would not cause permanent inundation or shoreline overtopping at the Project site (LAHD, 2018). However, SLR with storm tide conditions could temporarily flood low lying areas within the Project site and access routes surrounding the site. The inundation could temporarily interrupt Project operations.

The Project would, like all port facilities, operate under various contingency and emergency prevention and response plans that would mandate shutdown of infrastructure such as gas lines and electrical facilities in anticipation of flooding. Accordingly, the presence of water on the site would not pose a serious risk of rupture or electrical hazard. Although traffic could be blocked by water depths of more than a few inches, vehicle movement should be able to resume quickly after waters have receded, which would be a matter of hours. Accordingly, SLR does not pose substantial structural risks to the Proposed Project or the alternatives, and no compensatory structural revisions are needed.

Neither the Proposed Project nor any of the alternatives include storage of hazardous materials in quantities that could be released. Containers would be stored on chassis and would be empty. Accordingly, damage to facilities caused by SLR scenarios would not adversely affect nearby facilities or communities.

3.3.7. Significant Unavoidable Impacts

~~No significant unavoidable~~ With mitigation, impacts related to GHG emissions for the Proposed Project would be less than significant. No other significant impacts would occur for GHG emissions ~~or sea level rise would occur~~ during construction or operation of the Proposed Project or alternatives.