Section 3.1
Air Quality and Health Risk

Section Summary

Section 3.1, *Air Quality and Health Risk*, provides the following:

- A description of existing air quality in the Port of Los Angeles (Port) area;
- 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 on air quality or increased health risks from air emissions (emission calculations are provided in EIR Appendix B1 and B2);
- 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 air quality emissions.

Key Points of Section 3.1

Construction and operation of the Proposed Project would result in emissions of criteria pollutants in the form of off-road construction equipment, construction vehicle exhaust, paving, and operational vehicle exhaust. For the Proposed Project, operational emissions of nitrogen oxides (NOx) would exceed the regional significance threshold, and this impact would remain significant and unavoidable after implementation of mitigation for cargo-handling equipment. Under the No Project Alternative (Alternative 1), no Project-related criteria pollutant emissions would occur. Under the Reduced Project Alternative (Alternative 2), criteria pollutant emission sources would be the same as the Proposed Project, but emissions would be scaled down.

Construction-Related Mass Emissions and Ambient Pollutant Concentration Impacts

Construction of the Proposed Project and the Reduced Project Alternative (Alternative 2) would result in daily mass emissions that are below the South Coast Air Quality Management District (SCAQMD) regional significance thresholds for each of the following criteria pollutants: Nitrogen oxides (NOx), volatile organic compounds (VOC), carbon monoxide (CO), sulfur oxides (SOx), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM10), and fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM2.5). The Project complies with the 2009 *Los Angeles Harbor Department (LAHD), Sustainable Construction Guidelines* which include control measures requiring construction equipment and practices cleaner than those reflected in an average regional fleet.

Localized ambient air quality impacts from on-site construction activities using the SCAQMD localized significance threshold (LST) methodology (SCAQMD, 2008) show that the estimated maximum on-site daily construction emissions are below the applicable SCAQMD mass-rate LSTs for nitrogen dioxide (NO_2), CO, PM10, and PM2.5. Although the construction emissions would be below the mass-rate LSTs, air dispersion modelling was conducted to confirm that the Proposed Project and alternatives would not contribute substantially to health risks for off-site residences and workers (see "Health Risk Impacts" below).

Operations-Related Mass Emissions and Ambient Pollutant Concentration Impacts

Emissions caused by operation of the Proposed Project exceed the regional significance threshold for NOx, and depending on feasibility, mitigation would reduce NOx from cargo-handling equipment. Emissions of other air pollutants for the Proposed Project and alternatives would not exceed regional significance thresholds or LSTs.

Health Risk Impacts

Dispersion modeling was completed to screen for the maximum off-site concentrations of toxic air contaminants (TACs) and determine the incremental cancer risk and non-cancer health hazards. Based on this health risk assessment, the impacts during construction and operation of the Proposed Project and alternatives would be less than significant.

3.1.1. Introduction

This section includes a description of the affected air quality environment and predicted impacts from construction and operation of the Proposed Project and alternatives. Emission details and the detailed HRA are provided in Appendices B1 and B2, respectively. Comments received on the Notice of Preparation/Initial Study (NOP/IS) during the scoping period include the following:

- Recommend use of SCAQMD's CEQA Air Quality Handbook and website and CalEEMod land use emissions software.
- Recommend use of regional and localized significance thresholds.
- Identify potential adverse air quality impacts from all phases of the Proposed Project.
- Identify feasible mitigation measures for any significant adverse air quality impacts, as well as impacts from mitigation measures.

3.1.2. Environmental Setting

Climate and Meteorology

The Project area is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the SCAQMD. The Basin is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined

by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The topography and climate of Southern California combine to make the Basin an area of high air pollution potential. The Basin is a coastal plain with broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is disrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. Light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions which produce ozone.

Criteria Air Pollutants

The California Air Resources Board (CARB) and the United States Environmental Protection Agency (USEPA) currently focus on the following air pollutants as indicators of ambient air quality: ozone, CO, NO_2, sulfur dioxide (SO_2), PM10, PM2.5, and lead. These pollutants are referred to as "criteria air pollutants" because they are regulated by human health-based and/or environmentally based criteria (science-based guidelines) for setting permissible levels. Levels that are based on preventing injury to human health are called the primary standards, whereas secondary standards set limits intended to prevent environmental and property damage. Extensive health-effects documentation establishes the key effects of these pollutants on human health and welfare (SCAQMD, 2022). Standards have been established for each criteria pollutant to meet specific public health and welfare criteria set forth in the federal Clean Air Act (CAA). The USEPA establishes the federal National Ambient Air Quality Standards (NAAQS) and defines how to demonstrate whether an area meets the NAAQS. California has adopted generally more stringent ambient air quality standards for the criteria air pollutants (referred to as California Ambient Air Quality Standards [CAAQS], or state standards) and has adopted air quality standards for additional pollutants for which there is no corresponding national standard, including sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

The key adverse health and welfare effects of exposure to criteria air pollutants are summarized below (SCAQMD, 2022).

- Ozone: (a) Pulmonary function decrements and localized lung injury in humans and animals; (b) asthma exacerbation; (c) chronic obstructive pulmonary disease (COPD) exacerbation; (d) respiratory infection; (e) increased school absences, and hospital admissions and emergency department (ED) visits for combined respiratory diseases; (e) increased mortality; and (f) possible metabolic effects. Additionally, vegetation damage and property damage.
- Carbon Monoxide (CO): (a) Aggravation of angina pectoris and other aspects of coronary heart disease;,(b) decreased exercise tolerance in persons with peripheral

vascular disease and lung disease, (c) possible impairment of central nervous system functions, (d) possible increased risk to fetuses, (f) possible increased risk of pulmonary disease, and (g) possible emergency department visits for respiratory diseases overall and visits for asthma. Additionally causes visibility reduction.

- PM10 and PM2.5: Short-term: (a) increase in mortality rates, (b) increase in respiratory infections, (c) increase in number and severity of asthma attacks, (d) chronic obstructive pulmonary disease (COPD) exacerbation, (e) increase in combined respiratory-diseases and number of hospital admissions, (f) increased mortality due to cardiovascular or respiratory diseases, (g) increase in hospital admissions for acute respiratory conditions, (h) increase in school absences, (i) increase in lost work days, (j) decrease in respiratory function in children, and (k) increase medication use in children and adults with asthma. Long-term: (a) reduced lung function growth in children, (b) changes in lung development, (c) development of asthma in children, (d) increased risk of cardiovascular diseases, (e) increased total mortality from lung cancer, and (f) increased risk of premature death. Possible link to metabolic, nervous system, and reproductive and developmental effects for short-term and long-term exposure to PM2.5.
- Nitrogen Dioxide (NO_2): Short-term: asthma exacerbations ("asthma attacks"). Long-term: (a) asthma development; (b) higher risk of all-cause, cardiovascular, and respiratory mortality. Both short and long term NO2 exposure is also associated with COPD risk. Potential impacts on cardiovascular health, mortality, and cancer; and aggravate chronic respiratory disease. Contribution to atmospheric discoloration.
- Sulfur Dioxide (SO_2): Respiratory symptoms (bronchoconstriction, possible wheezing or shortness of breath) during exercise or physical activity in persons with asthma. Possible allergic sensitization, airway inflammation, and asthma development.

Toxic Air Contaminants (TACs)

TACs are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another's. TACs do not have ambient air quality standards but are regulated by the local air districts using a risk-based approach. Diesel particulate matter (DPM) is classified as a TAC because many toxic compounds adhere to diesel exhaust particles, and statewide programs focus on managing this pollutant through motor vehicle fuels, engine, and tailpipe standards.

Existing Conditions

SCAQMD maintains ambient air quality monitoring stations within the district boundaries that monitor air quality and compliance with associated ambient standards. The Los Angeles Harbor Department (LAHD) also maintains their own monitoring stations, with the closest air quality monitoring station to the Project site being the San Pedro Community station.

Both CARB and USEPA use monitoring data to designate attainment status. The three basic designation categories are nonattainment, attainment, and unclassified.

Nonattainment is defined as any area that does not meet, or that contributes to, ambient air quality in a nearby area that does not meet the primary or secondary ambient air quality standard for the pollutant. Attainment is defined as any area that meets the primary or secondary ambient air quality standard for the pollutant. Unclassifiable is defined as any area that cannot be classified based on available information as meeting or not meeting the primary or secondary ambient air quality standard for the pollutant. California designations include a subcategory of nonattainment-transitional, which is given to nonattainment areas that are progressing and nearing attainment.

The USEPA currently designates the Basin as a nonattainment area for ozone, PM2.5 (24-hour standard), and lead. However, lead would not be emitted by the Proposed Project because its operations or construction would not use leaded fuels or handle lead-containing materials; therefore, lead is not a pollutant of concern for this EIR. The USEPA currently classifies the Basin as extreme nonattainment for the 8-hour ozone national ambient air quality standard (NAAQS) and serious nonattainment for PM2.5 (24-hour standard). The Basin is in attainment/maintenance of the NAAQS for CO, SO_2, NO_2, and PM10. CARB also designates areas of the state according to whether they meet the CAAQS. CARB currently designates the Basin as a nonattainment area for ozone (considers NO_X as an ozone precursor), PM10, and PM2.5. The air basin is in attainment of the CAAQS for CO, SO_2, lead and sulfates, and is unclassified for hydrogen sulfide and visibility reducing particles (CARB, 2022).

Sensitive Land Uses

Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered more sensitive to poor air quality than the general public, as population groups associated with these uses have increased susceptibility to respiratory distress. Since people generally spend longer periods of time in their residences, these uses are considered more sensitive to air quality conditions than commercial and industrial uses. Recreational land uses are considered moderately sensitive to air pollution since exercise places a high demand on respiratory functions, which can be impaired by air pollution. There are no nearby residences, schools, or parks within a 1,000-foot radius of the Project site. The closest sensitive receptors to the Project site are liveaboards in Newmarks Yacht Centre, approximately 1 mile north of the Project site, and residential areas of San Pedro 1.3 miles west of the Project site.

3.1.3. Applicable Regulations

3.1.3.1. Federal Regulations

United States Environmental Protection Agency

Federal CAA

The federal CAA of 1969 and its significant amendments (1990) form the basis for the nation's air pollution control effort. The USEPA is responsible for implementing most aspects of the CAA. A key element of the CAA requires the USEPA to set the health-protective levels of the NAAQS for major air pollutants. The CAA delegates enforcement of the NAAQS in California to the CARB. CARB, in turn, delegates to local air agencies the responsibility of regulating stationary emission sources.

Hazardous Air Pollutants

The USEPA has programs for identifying and regulating hazardous air pollutants (HAPs). Title III of the 1990 CAA Amendments directed the USEPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP may differ for major sources than for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources.

3.1.3.2. State Regulations

California Air Resources Board

California Clean Air Act. Implemented by the CARB, the California CAA establishes broad authority for California to regulate emissions from mobile sources and requires regions to develop and enforce strategies to attain CAAQS. In the Project area, the SCAQMD is responsible for demonstrating how these standards are met.

CARB Off-Road Mobile Sources Emission Reduction Program. The California CAA mandates that CARB achieve the maximum degree of emission reductions from all off-road mobile sources to attain the state ambient air quality standards. Off-road mobile sources include construction equipment. The earliest (Tier 1) standards for large compression-ignition engines used in off-road mobile sources became effective in California in 1996. Since then, the Tier 3 standards for large compression-ignition engines used in off-road mobile sources went into effect in California for most engine classes in 2006. In a 2004 rulemaking, the USEPA established a phase-in of Tier 4 standards for certain "nonroad" engines beginning in 2008, and the Tier 4 or Tier 4 Interim (4i) standards apply to all off-road diesel engines model year 2012 or newer. These standards and standards applicable to fleets that are already in-use address emissions of NOx and particulate matter from diesel combustion.

CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. The regulations for in-use off-road diesel equipment are designed to reduce NOx and toxic DPM from existing fleets of equipment. Depending on the size of the fleet, the owner would need to ensure that the average emissions performance of the fleet meets certain state-wide standards. In lieu of improving the emissions performance of the fleet, electric systems can be installed allowing for the replacement of diesel equipment in the fleet with electric equipment. Presently, all equipment owners are subject to a five-minute idling restriction (13 California Code of Regulations, Chapter 10, Section 2449).

CARB Advanced Clean Fleets Regulation and Drayage Truck Regulations. The CARB statewide On-road Truck and Bus Regulation, and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet. Older trucks that emit more pollution will be replaced with newer, cleaner trucks per these requirements. The average state-wide DPM emissions for Heavy Duty Trucks (HDT) will be reduced due to these regulatory requirements. Successful implementation of these programs depends on the commercial availability of electric and other zero-emission models of medium- and heavy-duty vehicles. In 2020, CARB adopted the Advanced Clean Trucks regulation that requires manufacturers to sell zero-emissions models as an increasing percent of total medium- and heavy-duty sales in California. During 2023 and 2024, CARB issued notices to exercise "enforcement discretion," given that CARB recognized a lack of heavy-duty

powertrain availability to comply with the Advanced Clean Fleets regulation and engines to comply with zero-emissions sales requirements.

CARB Portable Equipment Registration Program (PERP). This program allows owners or operators of portable engines and associated equipment commonly used for construction or farming to register their units under a statewide portable program that allows them to operate their equipment throughout California without having to obtain individual permits from local air districts.

3.1.3.3. Local Regulations

South Coast Air Quality Management District

Criteria Air Pollutants

The SCAQMD maintains air quality conditions in the Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SCAQMD includes preparation of plans for attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. SCAQMD also inspects stationary sources of air pollution and responds to citizen complaints; monitors ambient air quality and meteorological conditions; and implements programs and regulations required by the federal and California CAA. Air quality plans applicable to the Proposed Project are discussed below.

Air Quality Management Plan

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for preparing an air quality management plan (AQMP), which addresses federal and state CAA requirements. The AQMP details goals, policies, and programs for improving air quality in the Basin.

The 2022 AQMP was adopted by the SCAQMD Governing Board on December 2, 2022, and builds upon measures already in place from previous AQMPs (SCAQMD, 2022). It includes a variety of additional strategies such as accelerated deployment of available cleaner technologies (e.g., zero-emission technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 federal 8-hour ozone standard. SCAQMD proposes a total of 49 control measures for the 2022 AQMP, including control measures focused on widespread deployment of zero emission and low NOx technologies through a combination of regulatory approaches and incentives.

SCAG is mandated by law to develop a long-term regional transportation and sustainability plan every four years. SCAG most recently met this mandate by adopting the 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (2024 SCAG RTP/SCS) in April 2024.

SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations (SCAQMD, 2023a). Specific rules potentially applicable to the Proposed Project include the following:

Rule 203 – Permit to Operate. A person shall not operate or use any equipment or agricultural permit unit, the use of which may cause the issuance of air contaminants, or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit to operate from the Executive Officer or except as provided in Rule 202. The equipment or agricultural permit unit shall not be operated contrary to the conditions specified in the permit to operate.

Rule 401 – Visible Emissions. A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

Rule 402 – Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Rule 403 – Fugitive Dust. SCAQMD Rule 403 governs emissions of fugitive dust during and after construction. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour (mph), sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires project applicants to control fugitive dust using the best available control measures such that dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating an off-site nuisance. Potentially applicable dust suppression techniques to reduce impacts on nearby sensitive receptors may include, but are not limited to, the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. Locations where grading is to occur shall be thoroughly watered prior to earthmoving.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.

- Suspend all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Provide bumper strips or similar best management practices where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replant disturbed areas as soon as practical.
- Sweep on-site streets (and off-site streets if silt is carried to adjacent public thoroughfares) to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

Rule 481 – Spray Coating. This rule applies to all spray painting and spray coating operations and equipment and states that a person shall not use or operate any spray painting or spray coating equipment, subject to the conditions specified in the rule.

Rule 1108 - Volatile Organic Compounds. This rule governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the Basin. This rule also regulates the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the Project must comply with SCAQMD Rule 1108.

Rule 1113 – Architectural Coatings. No person shall apply or solicit the application of any architectural coating within the SCAQMD with VOC content in excess of the values specified in a table incorporated in Rule 1113.

Rule 1143 – Paint Thinners and Solvents. This rule governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

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 CAAP provides guidance for progressing toward a zero-emission future for the Port of Los Angeles (POLA). The CAAP includes strategies to reduce pollution from ships, trucks, trains, harbor craft, and cargo-handling equipment and 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 CTP was established in 2008. The 2017 CAAP Update reflects the early actions taken by the original CTP 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. Additionally, all drayage trucks entering POLA terminals must comply with the provisions of the POLA Tariff Section 20: Clean Air Action Plan - General Rules & Regulations. As of 2018, new trucks entering the Ports' Drayage Truck Registry (PDTR) must have a 2014 engine

model year or newer. As of 2020, following promulgation of the state's near-zero-emission heavy-duty engine standard, all heavy-duty trucks entering Port terminals are charged a rate to enter with exemptions for trucks that are certified to meet the State's near-zero standard or better. 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.

Community Emissions Reduction Plan Wilmington, Carson, West Long Beach

The Community Emissions Reduction Plan (CERP) outlines the actions and commitments by the Community Steering Committee (CSC), the SCAQMD, and CARB to reduce air pollution in the Wilmington, Carson, and West Long Beach community (SCAQMD, 2019). The CERP is a critical part of implementing Assembly Bill (AB) 617, and includes targeted actions including developing and enforcing regulations, providing incentives to accelerate the adoption of cleaner technologies, and conducting outreach to provide useful information to the public. Additionally, air monitoring is used in implementation of the CERP to provide information to help guide investigations or provide public information.

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 greenhouse gas (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 Angeles General Plan Health, Wellness, and Equity Element and Air Quality Element (City of Los Angeles, 2021) contains the following objectives and policies related to air quality 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, increase traffic mobility, and sustain economic growth citywide.
Objective AQ 1.3	It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.
Policy AQ 1.3.1	Minimize particulate emissions from construction sites.
Policy AQ 1.3.2	Minimize particulate emissions from unpaved roads and parking lots which are associated with vehicular traffic.

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 HW 5.1	Reduce air pollution from stationary and mobile sources; protect human health and welfare and promote improved respiratory health.
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.

3.1.4. Impacts and Mitigation Measures

3.1.4.1. Methodology

All construction- and operation-related emissions are quantified based on the best available forecast of activities, which conservatively assumes construction would begin in 2025 with opening year operations beginning in 2027 and full buildout operations in 2046.[1] 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 of operational emissions. Truck travel emissions factors are derived for specific travel speeds from the CARB emissions inventory in EMFAC2021 (v1.0.2) for the drayage truck fleet mix (classification: T7 POLA Class 8), in each scenario year. Use of EMFAC2021 conservatively estimates heavy-duty vehicle emissions as this model takes no credit for newer programs, including the Clean Truck Check Program (previously Heavy-Duty Inspection and Maintenance) and the statewide Advanced Clean Trucks and Advanced Clean Fleets regulations that are not yet enforceable.

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). 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.

[1] Construction and operational equipment emissions would improve over time as a result of existing regulations, as discussed in Section 3.1.3, *Applicable Regulations*. As such, assuming an earlier construction timeframe (2025) presents a conservative analysis. The exact construction dates would be finalized once the Project is approved.

3.1.4.2. 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. 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.

3.1.4.3. Thresholds of Significance

State CEQA Guidelines Appendix G (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387) CEQA Checklist suggests four criteria for determining the significance of impacts related to air quality. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations, which ask whether the Project would:

(a) Conflict with or obstruct implementation of the applicable air quality plan?

(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

(c) Expose sensitive receptors to substantial pollutant concentrations?

(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The NOP/IS (Appendix A) eliminated CEQA Checklist item (d) from further consideration. Construction may temporarily cause odors from the use of diesel-powered equipment and vehicles, and odors from operation of the Proposed Project would be caused by the chassis maintenance and repair facilities before the facility fully transitions to zero-emissions equipment by 2030. However, the nearest sensitive receptors are approximately 1 mile away from the Project site, and odors generated during construction and operation would adequately disperse over this distance to levels below objectionable odor levels. As required by Project Feature (PF) AQ-1 (*Zero-Emissions Operational Equipment*), by January 1, 2030, all yard equipment would transition to zero-emissions technology, and zero-emissions equipment would generate no odorous emissions. The impact of odors was determined to be less than significant.

Therefore, the following thresholds (Criteria AQ-1 through AQ-6 defined below) were used to determine significance of air quality impacts of the Proposed Project and alternatives under CEQA. The thresholds are based on the standards established by the City of Los Angeles in the *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006), which incorporates, by reference, the *CEQA Air Quality Handbook* and associated significance thresholds developed by the SCAQMD (SCAQMD, 2023).

Construction Thresholds

The *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006) references the SCAQMD *CEQA Air Quality Handbook* (SCAQMD, 1993) for calculating and determining the significance of construction emissions. The SCAQMD significance thresholds are updated as necessary on the district's web page to address new regulations and standards (SCAQMD, 2023).

Construction-related air impacts would be considered significant if:

Criterion AQ-1: Construction of the Project or alternatives would result in peak day emissions that exceed the SCAQMD regional thresholds of significance.

For determining significance, the Proposed Project and Reduced Project Alternative (Alternative 2) peak day construction emissions are compared to the SCAQMD thresholds in Table 3.1-1.

Table 3.1-1: SCAQMD Regional Thresholds for Construction Emissions

Air Pollutant	Emission Threshold (pounds/day
Volatile Organic Compounds (VOC)	75
Nitrogen Oxides (NOx)	100
Carbon Monoxide (CO)	550
Sulfur Oxides (SOx)	150
Particulate matter less than 10 microns (PM10)	150
Particulate matter less than 2.5 microns (PM2.5)	55

Source: SCAQMD, 2023

Criterion AQ-2: Construction of the Project or alternatives would result in off-site ambient air pollutant concentrations that exceed the SCAQMD thresholds of significance.

For emissions from sites that are near sensitive receptors and are five acres or less, SCAQMD developed the LSTs to evaluate whether a mass emission rate from a project may generate significant adverse localized air quality impacts to nearby off-site sensitive receptors (SCAQMD, 2008). Because the Proposed Project is located on a large site of 89.2 acres, the LSTs do not directly apply; however, this discussion uses the LSTs as a proxy for describing near-field criteria pollutant impacts to off-site receptors. The 5-acre screening lookup table at a receptor distance of 500 meters for Zone 4 – South Coastal LA County was used for construction emissions, as shown in Table 3.1-2.

Table 3.1-2: SCAQMD LST for Construction Emissions (lbs/day)

	NOx	CO	PM10	PM2.5
SCAQMD LST	179	10,198	191	120

Source: SCAQMD, 2009.
Note: Each LST reflects a site area of 5 acres and receptor distance of 500 meters. The Project site is in Source-Receptor Area 4 (South Coastal LA County).

Operational Thresholds

The *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006) provides specific significance thresholds for operational air quality impacts that also are based on SCAQMD

standards (Table 3.1-3). Operations-related air impacts would be considered significant if:

Criterion AQ-3: Operation of the Project or alternatives would result in emissions that exceed the SCAQMD peak day regional emission thresholds of significance.

For determining significance under CEQA, these thresholds are compared to the net change in the Project's operational peak daily emissions relative to CEQA baseline emissions.

Table 3.1-3: SCAQMD Regional Thresholds for Operational Emissions

Air Pollutant	Emission Threshold (pounds/day)
VOC	55
NOx	55
CO	550
SOx	150
PM10	150
PM2.5	55

Source: SCAQMD, 2023.

Criterion AQ-4: Operation of the Project or alternatives would result in off-site ambient air pollutant concentrations that exceed the SCAQMD thresholds of significance.

The SCAQMD LST also includes criteria pollutant thresholds for operation. As with construction, the 5-acre screening lookup table at a receptor distance of 500 meters for Zone 4 – South Coastal LA County was used, as shown in Table 3.1-4.

Table 3.1-4: SCAQMD LST for Operational Emissions (lbs/day)

	NOx	CO	PM10	PM2.5
SCAQMD LST	179	10,198	46	29

Source: SCAQMD, 2009.
Note: Each LST reflects a site area of 5 acres and receptor distance of 500 meters. The Project site is in Source-Receptor Area 4 (South Coastal LA County).

Criterion AQ-5: The Project or alternatives would expose receptors to significant levels of TACs.

The determination of significance for Criterion AQ-5 is made as follows (SCAQMD, 2023):

- Maximum Incremental Cancer Risk is greater than or equal to 10 in one million;
- Cancer Burden is greater than 0.5 excess cancer cases in areas where the maximum incremental cancer risk for residential receptors is greater than or equal to 1 in one million; and
- Non-cancer Hazard Index is greater than or equal to 1.0 (project increment).

Criterion AQ-6: The Project or alternatives would conflict with or obstruct implementation of an applicable air quality plan.

The consistency of the Proposed Project with an applicable AQMP is assessed qualitatively. The Proposed Project would be considered consistent with the local AQMP and not interfere with attainment goals if the Proposed Project's activities (e.g., throughput, truck trips) are consistent with the projections utilized in the formulation of the 2022 AQMP; in other words, if the Project's activities do not exceed the assumptions in the 2022 AQMP (SCAQMD, 2022).

3.1.5. Impact Analysis

3.1.5.1. Proposed Project

The Proposed Project would result in increased emissions of criteria air pollutants at the Project site associated with construction activities and operation as a chassis storage/support and/or wheeled empty container storage facility. Under the Proposed Project, operation of this MSF as a chassis storage/support facility would result in more truck traffic than as a wheeled empty container storage facility.

Impact AQ-1: Would construction of the Proposed Project result in emissions that exceed the SCAQMD regional thresholds of significance for construction emissions?

Construction activities associated with the Proposed Project would result in emissions of CO, VOCs, NOx, SOx, PM10, and PM2.5. Pollutant emissions associated with construction would be generated from the following construction activities: (1) site preparation, grading, and excavation; (2) construction workers traveling to and from the Project site; (3) delivery and hauling of construction supplies to, and debris from, the Project site; (4) fuel combustion by on-site construction equipment; (5) application of architectural coatings and paving. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. In addition, emissions would result from the export of approximately 270,000 cubic yards of soil during the grading phase.

Construction emissions are short-term and temporary. The phasing of activities appears in the CalEEMod detailed report for construction (EIR Appendix B1). The unmitigated maximum daily construction emissions for the Proposed Project were estimated using CalEEMod; and the modeling reflects compliance with SCAQMD Rules 403 and 1113. Table 3.1-5 provides the maximum daily emissions of criteria air pollutants from construction of the Proposed Project compared to the numerical thresholds of significance established by the SCAQMD for emissions of criteria pollutants.

Table 3.1-5: Maximum Daily Unmitigated Construction Emissions, Regional Thresholds

Construction Emissions (lbs/day)						
	VOCs	NOX	CO	SOX	PM10	PM2.5
Maximum Daily Project Emissions	17.1	51.2	41.70	0.15	35.0	8.73
SCAQMD Thresholds	75.0	100.0	550.0	150.0	150.0	55.0
Exceeds Threshold?	No	No	No	No	No	No

Source: SCAQMD, 2023; Appendix B1, Air Quality/GHG Emissions Calculations

Impact Determination

As shown in Table 3.1-5, the maximum daily emissions of criteria air pollutants from construction of the Proposed Project would not exceed the thresholds established by the SCAQMD, and the impact of construction emissions on regional air quality would be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Residual impacts would be less than significant.

Impact AQ-2: Would construction of the Proposed Project result in off-site ambient air pollutant concentrations that exceed the SCAQMD thresholds of significance?

Off-site emissions from the Proposed Project would be generated from construction workers traveling to and from the Project site, delivery of construction equipment and supplies to the Project site, and trucks hauling of export material from the Project site.

Impact Determination

Table 3.1-6 shows that total Project construction emissions would be less than the SCAQMD localized significance thresholds for all pollutants. Most of the construction emissions would occur on-site. Off-site emissions resulting from construction vehicle trips would be a fraction of total emissions and would not include the VOC emissions resulting from paving and coatings. Because Project construction emissions would not exceed the SCAQMD localized significance thresholds, the Proposed Project would result in less-than-significant off-site ambient air pollutant concentrations.

Table 3.1-6: Maximum Daily Unmitigated Construction Emissions, Localized Thresholds

Construction Emissions (lbs/day)				
	NOx	**CO**	**PM10**	**PM2.5**
Maximum Daily Project Emissions	51.2	41.70	35.0	8.73
Localized Significance Threshold	179	10,198	191	120
Exceeds Threshold?	No	No	No	No

Source: SCAQMD, 2023; Appendix B1, Air Quality/GHG Emissions Calculations
Note: Each LST reflects a site area of 5 acres and receptor distance of 500 meters. The Project site is in Source-Receptor Area 4 (South Coastal LA County).

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

Impact AQ-3: Would the Proposed Project result in operational emissions that exceed SCAQMD peak day regional emission thresholds of significance?

Implementation of the Proposed Project would result in long-term regional emissions of criteria air pollutants and ozone precursors (NO_X, VOCs) associated with vehicles traveling to the Project site, off-road equipment for cargo handling (on-site), and minor quantities from area sources such as occasional applications of architectural coatings for stall striping.

From a regional perspective, the quantity of new emissions generated by the Proposed Project would depend on whether region-wide vehicle activity increases. While truck trips would access on-site facilities, the Proposed Project would reduce inefficient chassis trips within the POLA and the Port of Long Beach (POLB).

Operational emission calculations assume that the proposed MSF would result in the geographic diversion of truck trips, and that operation of the proposed MSF is not anticipated to cause trips to be newly generated to/from the POLA-POLB. Diverted truck trips include the potential additional vehicle-miles traveled up to 1.87 miles per one-way trip to access the site. The emissions caused by the diverted truck trips would occur mostly off-site, and based on the site plan, approximately 0.35 miles of additional truck travel per one-way trip would occur on site.

To quantify the emissions of regional truck travel, the trucks diverted to the Project site are included in the comparison with the regional significance thresholds. As discussed in the Project Description, truck travel emissions assume the MSF would serve up to 3,682 and 6,838 truck trips per day, under opening year (2027) and buildout (2046) conditions, respectively (LAHD, 2023). Prior to full buildout (2046), emissions from the truck trips served by the site would trend towards lower emissions than in the opening year through compliance with the CTP which includes the goals of phasing out older on-road drayage trucks and transitioning to zero-emission on-road drayage trucks by 2035. However, reductions related to CTP compliance are not included in the quantification presented herein.

Calculated regional emissions are provided in Table 3.1-7. Operational activities include emissions from new on-site cargo-handling equipment using diesel-fueled engines certified to meet Tier 4 Final standards in the opening year (2027). Before the buildout (2046), PF AQ-1 (*Zero-Emissions Operational Equipment*) would require a 100 percent transition of all yard equipment to zero emissions by January 1, 2030, and any non-conforming equipment would be a breach of the Permit/Lease. The opening year also includes the new emissions in the region due to 160 daily one-way worker vehicle trips made by the 80 employees commuting to the MSF site. The buildout year (2046) includes the emissions due to 210 daily one-way worker vehicle trips made by 105 employees commuting.

Table 3.1-7: Maximum Daily Unmitigated Operation Emissions, Regional Thresholds

Operational Emissions (lbs/day)						
	VOCs	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Opening Year (2027)						
Worker Vehicles (2027)	0.67	0.69	7.68	0.02	1.91	0.49
Cargo-Handling Equipment (2027)	1.91	9.94	101.00	0.19	0.38	0.38
Energy and Area Sources (2027)	1.20	0.05	3.11	< 0.01	< 0.01	< 0.01
Off-site, Truck Trips (2027)	0.19	33.18	4.79	0.24	8.58	1.81
On-site, Truck Trips (2027)	0.09	14.15	1.89	0.06	1.63	0.35
On-site, Truck Idling (2027)	2.30	14.64	20.40	0.03	0.00	0.00
Maximum Daily Operation (2027)	**6.36**	**72.65**	**138.87**	**0.55**	**12.50**	**3.03**
SCAQMD Thresholds	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds Threshold?	No	**Yes**	No	No	No	No
Buildout (2046)						
Worker Vehicles (2046)	0.59	0.49	6.97	0.02	2.40	0.61
Cargo-Handling Equipment (2046)	0.00	0.00	0.00	0.00	0.00	0.00
Energy and Area Sources (2046)	1.20	0.05	3.11	< 0.01	< 0.01	< 0.01
Off-site, Truck Trips (2046)	0.24	42.41	11.62	0.30	15.90	3.30
On-site, Truck Trips (2046)	0.12	18.68	4.30	0.07	3.02	0.64
On-site, Truck Idling (2046)	4.27	27.18	37.88	0.06	0.01	0.01
Maximum Daily Operation (2046)	**6.42**	**88.81**	**63.88**	**0.46**	**21.33**	**4.56**
SCAQMD Thresholds	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds Threshold?	No	**Yes**	No	No	No	No

Source: SCAQMD, 2023; Appendix B1, Air Quality/GHG Emissions Calculations.

Impact Determination

As shown in Table 3.1-7, the Proposed Project's contribution to regional emissions from operational activities would exceed the numerical thresholds of significance established by the SCAQMD for NOx emissions. The impact of operational NOx emissions on regional air quality would be significant.

Project Features and Mitigation Measures

The following Project Feature would be incorporated into the tenant's entitlement to require the use of zero-emission operational equipment by January 1, 2030.

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 would be a breach of the Permit/Lease.

While PF AQ-1 (*Zero-Emissions Operational Equipment*), would reduce emissions before 2030, additional mitigation would be needed to reduce operational NOx emissions at the start of operation. The largest contributor to operational NOx emissions would be off-site truck travel during operations. Tenants responsible for operations would not

likely own or control the truck fleets of future customers using the site. Therefore, the Proposed Project cannot determine the technology or composition of the truck fleet that would use the facility.

The statewide Advanced Clean Trucks and Advanced Clean Fleets regulations that are promulgated by CARB, although not yet enforceable, may lead to accelerated turnover of older trucks, as electric or other zero-emission models of heavy-duty vehicles become available to the market in the future. Depending on the availability of these technologies and enforcement of the regulations, a growing fraction of the fleet could become electric or zero-emissions prior to the buildout year. However, this analysis does not take credit for this as that fraction is uncertain. Accordingly, controlling truck technologies is not a feasible mitigation.

To reduce operational NOx emissions, MM AQ-1 would require use of zero-emission cargo handling equipment at the start of operations, subject to agreement on feasibility.

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 Applicable Law comes into effect that requires the cargo-handling equipment used on site to be zero-emission equipment, the Applicable Law would govern.

Residual Impacts

Impacts of operational NOx emissions would remain significant and unavoidable.

Impact AQ-4: Would operation of the Proposed Project result in off-site ambient air pollutant concentrations that exceed SCAQMD thresholds of significance?

Implementation of the Proposed Project would result in long-term emissions of criteria air pollutants associated with area sources, off-road equipment use, and vehicles traveling to the Project site (additional details provided under Impact AQ-3). To determine the impact to off-site ambient air pollutant concentrations, the operation emissions from trucks transiting within the Project site were included in the comparison to the SCAQMD localized significance thresholds.

The calculated emission rates shown in Table 3.1-8 represent a conservatively high daily rate for on-site emissions by including off-site activity for employees commuting in the total. On-site truck activity would increase localized emissions, due to traffic diverted to the MSF. Off-site emissions resulting from employee commute trips and worker vehicles would be a fraction of total emissions, as shown in Table 3.1-7.

As shown in Table 3.1-8, the estimated Proposed Project's operational activities would not exceed the numerical LSTs.

Table 3.1-8: Maximum Daily Unmitigated Operation Emissions, Localized Thresholds

Operational Emissions (lbs/day)				
	NOx	CO	PM10	PM2.5
Maximum Daily Operation (2027)	72.65	138.87	12.50	3.03
Maximum Daily Operation (2046)	88.81	63.88	21.33	4.56
Localized Significance Threshold	179	10,198	46	29
Exceeds Threshold?	No	No	No	No

Source: SCAQMD, 2023; Appendix B1, Air Quality/GHG Emissions Calculations.
Note: Each LST reflects a site area of 5 acres and receptor distance of 500 meters. The Project site is in Source-Receptor Area 4 (South Coastal LA County).

Impact Determination

Project emissions reported in Table 3.1-8 show total Project operational emissions from all activities including those within the site would be less than the SCAQMD localized significance thresholds. Because on-site operational emissions would not exceed the SCAQMD localized significance thresholds, the Proposed Project would result in less-than-significant off-site ambient air pollutant concentrations.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

Impact AQ-5: Would the Proposed Project expose receptors to significant levels of TACs?

Project emissions of TACs could result in increased off-site health risks to nearby residences and workers. The method for characterizing this impact begins with a screening-level health risk assessment (HRA) that uses Project-specific air dispersion modeling and the CARB Risk Assessment Standalone Tool (RAST) to determine potential off-site risk levels. If the screening levels are exceeded, a full HRA analysis must be conducted.

The health risk impacts of TAC concentrations on sensitive receptors are evaluated in accordance with the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Risk Assessment Guidelines (OEHHA, 2015) and SCAQMD Risk Assessment Procedures (SCAQMD, 2017). This analysis considers the potential for the Proposed Project to expose sensitive receptors to TAC concentrations that could cause cancer, chronic, and acute health impacts. The Proposed Project would not involve any notable sources of TAC emissions other than DPM. As such, the screening level HRA considers the Proposed Project's DPM emissions to determine if the on-site emissions could substantially increase off-site concentrations of DPM.

Because activities at the Project site in the baseline are negligible, on-site DPM emissions would increase during construction and operation. The total on-site construction-phase DPM emissions would occur at an average rate of 0.11 tons per year (tpy) over the period spanning approximately 24 months. During operation, Proposed Project activities would create around 0.09 tpy DPM in the opening year (year 2027), and this would trend

downward towards lower DPM emissions in full buildout (year 2046) conditions with the electrification of cargo-handling equipment and the transition of trucks away from diesel to comply with the CTP as discussed in Impact AQ-3 (see detailed emissions results in Appendix B1). On this basis, the operational on-site DPM emissions rate would be much lower than DPM during construction.

There are no sensitive land uses (i.e., homes, hospitals, schools, nursing homes, etc.) near the Project site. The nearest sensitive receptors are liveaboards in Newmarks Yacht Centre, approximately 1 mile north of the Project site, and residential areas of San Pedro 1.3 miles west of the site.

For screening potential health risks, the Proposed Project was assumed to permanently increase on-site DPM emissions by up to 0.11 tpy, rather than limiting this level of emissions to the 24-month construction period. This represents a conservatively high assumption because the construction-phase emissions would not permanently continue after opening year, and the operational-phase DPM emissions at the site are estimated to be lower than during construction (Appendix B1).

To evaluate downwind DPM concentrations and health risks during construction-phase activities, this analysis applies the USEPA-recommended guideline dispersion model, AERMOD (American Meteorological Society/USEPA Regulatory Model). The model relies upon user-specified source parameters for receptor locations and source configuration as user inputs to AERMOD. For this analysis, the worst-case ambient downwind concentrations are estimated using a five-year record (2012-2016) of model-ready meteorological conditions from the Long Beach Airport, Daugherty Field.

The dispersion modeling analysis solves for maximum concentrations at the specified receptors in terms of micrograms per cubic meter ($\mu g/m^3$). For on-site DPM emissions up to 0.11 tpy, the annual average concentration at the maximum impacted residential area would be 0.00135 $\mu g/m^3$ of DPM, and the annual average concentration would be approximately 0.09 $\mu g/m^3$ for off-site workers north of the site boundary.

Maximum Incremental Cancer Risk. The results of the screening-level HRA calculated using RAST (version 22118) determined a worst-case cancer risk of 1.17 in one million for the maximum exposed residential receptor, with a 30-year exposure duration, and 5.57 in one million for off-site worker locations north of the site boundary. These resulting cancer risk levels are below the CAAP threshold and the SCAQMD significance threshold of 10 in one million (SCAQMD, 2023). Details of these calculations are provided in Appendix B2, Health Risk Assessment.

Cancer Burden. The zone of impact to the point at which the cancer risk falls below one in one million is approximately 1.4 miles (2.25 kilometers) from the Project site. Assuming the default population density of 7,000 persons per square kilometer (SCAQMD, 2017), the estimated cancer burden would be 0.112 excess cancer cases, which is well below the SCAQMD threshold of 0.5 excess cancer cases.

Non-cancer Hazard Index. The worst-case chronic hazard index risks would be 0.00027 for the maximum exposed residential receptor location and 0.018 for the worker receptor. The resulting hazard index results are below the SCAQMD significance threshold of 1.0 for the chronic hazard index. The DPM contaminant does not have an acute health risk reference exposure level; no acute hazard can be calculated, and the acute threshold does not apply to DPM.

The on-site equipment to support chassis depot operations would include zero-emission forklifts and utility tractor rigs (UTRs). However, diesel and propane could also be used for other yard equipment until 100 percent of yard equipment is transitioned to zero emissions by January 1, 2030 per the PF AQ-1 (*Zero-Emissions Operational Equipment*). Compared with on-site heavy-duty truck activity, propane-fueled equipment would contribute to on-site TAC emissions at much lower levels. Speciated TACs from propane use have California approved risk assessment cancer slope or reference exposure level factors for chronic and/or acute health risks that indicate comparably lower potential health risks when compared with those for DPM.

Therefore, the health risks from propane use during the transition to zero emissions would be minimal in relation to the adverse effects of DPM quantified for diesel-fueled truck trips.

Impact Determination

The screening-level HRA of Proposed Project TAC emissions uses dispersion modeling to determine the maximum concentration of DPM for receptors in the Project area. Based on a conservative assumption that the rate of on-site DPM emissions during construction would continue to occur after the 24-month construction period, through the opening year, and remain constant during the life of the Proposed Project, the maximum predicted health impacts would not exceed the SCAQMD significance thresholds for individual cancer risk, population cancer burden, or non-cancer health effects. The Proposed Project construction and operation activities would not expose sensitive receptors to substantial TAC concentrations. This impact would be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

Impact AQ-6: Would the Proposed Project conflict with or obstruct implementation of an applicable air quality plan?

SCAQMD AQMP Consistency

The SCAQMD's 2022 AQMP is the applicable air quality plan for the Project site. The SCAQMD periodically updates the AQMP, and each iteration identifies specific emission reduction measures designed to bring the Basin into attainment with the ambient air quality standards. With the 2022 AQMP, SCAQMD proposes a wide range of emissions control measures, including control measures focused on widespread deployment of zero emission and low NOx technologies through a combination of regulatory approaches and incentives. The SCAQMD also adopts AQMP control measures into the SCAQMD rules and regulations, which are then used to regulate sources of air pollution in the Basin. Compliance with these SCAQMD regulations and control programs would ensure that the Proposed Project would not conflict with or obstruct implementation of the AQMP.

Projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG in their RTP/SCS are considered consistent with the AQMP growth projections. Since SCAG's regional growth forecasts are based upon land uses

designated in general plans, a project that is consistent with the land use designated in a general plan would also be consistent with the SCAG's regional forecast projections, and thus also with the AQMP growth projections.

The Project site is within Planning Area 3 of the Port Master Plan (PMP) and focuses on container operations. Under the Proposed Project, the site's current PMP land use designation of Maritime Support (26% or 23.6 acres), Liquid Bulk (60% or 53.3 acres), and Container (14% or 12.3) would be changed to a dual designation of Maritime Support and Container through a PMP amendment. The Maritime Support designation provides for water-dependent and non-water-dependent operations necessary to support cargo handling and other maritime activities and represents relatively the lowest intensity land use of the three designations; Liquid Bulk represents the highest intensity land use and accounts for more than half the site. As such, changing the land use designation to Maritime Support/Container would reduce the intensity of land use at the site. As discussed in the IS/NOP, Section 5.11, *Land Use Planning* (see Appendix A), the Proposed Project would be consistent with the City of Los Angeles's General Plan land use designation of General/Bulk Cargo – Non-Hazardous (Industrial and Commercial) and qualified-heavy industrial ([Q]M3-1) zoning. The [Q] in this zone restricts uses to General Cargo, limited Port-related commercial, industrial, and support uses. The zone limits the storage of hazardous materials, liquid, or solid bulk that is flammable, explosive, or produces a flammable, toxic, or suffocating gas. The City's General Plan land use designation is relied on for SCAG's regional forecast projections and 2022 AQMP growth projections and would not change. Therefore, the Proposed Project is consistent with the SCAQMD 2022 AQMP.

The City of Los Angeles's General Plan also evaluates the potential of a project to increase the frequency or severity of existing air quality violations. Impacts would occur if the long-term emissions associated with a project would exceed SCAQMD's regional significance thresholds for operation-phase emissions. As detailed in Impact AQ-3, the Proposed Project would cause operational NOx emissions at a level that would exceed the SCAQMD threshold of significance. However, the Proposed Project would improve efficiency in goods movement by providing chassis parking space to reduce inefficient chassis trips and reduce the double handling of empty wheeled shipping containers. Operational emissions from truck travel would be due to the geographic diversion of existing truck travel. Because the operations would modify existing truck trips occurring within the San Pedro Bay Ports complex, the Proposed Project would not result in an increase in the frequency or severity of existing air quality violations and would not contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Overall, the Proposed Project would comply with the applicable emission reduction strategies identified in the 2022 AQMP, and, therefore, would not conflict with, nor obstruct, implementation of the AQMP. This impact would be less than significant.

Community Emissions Reduction Plan Wilmington, Carson, West Long Beach

The SCAQMD has prepared the *Wilmington, Carson, West Long Beach Community Emissions Reduction Plan* (CERP) in response to AB 617 (SCAQMD, 2019). The CERP addresses air quality issues and emissions associated with the POLA and POLB and identifies three air quality priorities including zero- and near-zero-emissions technologies, oil tanker leaks, and enforcement of existing CARB regulations. The Proposed Project would be consistent with the CERP as the PF AQ-1 (*Zero-Emissions Operational*

Equipment) would require use of zero-emission cargo-handling equipment on-site by January 1, 2030; trucks accessing the Project site would be required to be consistent with the Ports' CTP. Therefore, the Proposed Project would not conflict with the CERP.

San Pedro Bay Ports Clean Air Action Plan

The San Pedro Bay Ports CAAP is designed to reduce the health risks posed by air pollution from POLA and POLB related emission sources, including ships, trains, trucks, terminal equipment, and harbor craft. The CAAP encourages freight efficiency and addresses energy resources and contains strategies to reduce emissions from sources in and around the Ports and plans for zero-emissions infrastructure and equipment. The Proposed Project would be consistent with the freight efficiency strategies promoted by the CAAP by providing chassis parking space to reduce inefficient chassis trips and reduce the double handling of empty shipping containers. The Proposed Project would allow trucks to avoid driving further into or from the Port to pick up or drop off chassis with containers. Further, the Proposed Project would support the CAAP's overall goal of promoting zero-emissions goods movement, as PF AQ-1 (*Zero-Emissions Operational Equipment*) would require all on-site yard equipment to transition to zero emissions by January 1, 2030. Additionally, trucks accessing the Project site would be required to adhere to the Ports' CTP, which is a program to achieve the phase-out of diesel trucks and the phase-in of near zero-emission and zero-emission trucks prior to 2035, although reductions related to CTP compliance are not included in the emissions quantified by this analysis.

Impact Determination

Because the Proposed Project would incorporate CAAP control measures and would comply with the applicable AQMP control measures for Port activities, the Proposed Project would not result in an inconsistency with the AQMP, CERP, or the CAAP. Therefore, the Proposed Project would not result in a conflict with, and would not obstruct, implementation of an applicable air quality plan, and impacts would be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

3.1.5.2. 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 AQ-1: Would construction of the No Project Alternative (Alternative 1) result in emissions that exceed the SCAQMD regional thresholds of significance for construction emissions?

In the No Project Alternative (Alternative 1), the Project would not be constructed. Construction phase emissions would not occur.

Impact Determination

Since no construction 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 impacts.

Impact AQ-2: Would construction of the No Project Alternative (Alternative 1) result in off-site ambient air pollutant concentrations that exceed the SCAQMD thresholds of significance?

In the No Project Alternative (Alternative 1), the Project would not be constructed. Construction phase emissions would not occur.

Impact Determination

Since no construction 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 impacts.

Impact AQ-3: Would the No Project Alternative (Alternative 1) result in operational emissions that exceed SCAQMD peak day regional emission thresholds of significance?

In the No Project Alternative (Alternative 1), the Project would not be constructed. Operation emissions at the site would not occur and the site would remain unused.

Impact Determination

Since no 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 impacts.

Impact AQ-4: Would operation of the No Project Alternative (Alternative 1) result in off-site ambient air pollutant concentrations that exceed SCAQMD thresholds of significance?

In the No Project Alternative (Alternative 1), the Project would not be constructed. Operation emissions at the site would not occur and the site would remain unused.

Impact Determination

Since no operation phase emissions would occur under the No Project Alternative (Alternative 1), there would be no off-site emissions from vehicle travel to and from the site, and there would be no impacts.

Mitigation Measures

Mitigation is not required.

Residual Impacts

There would be no impacts.

Impact AQ-5: Would the No Project Alternative (Alternative 1) expose receptors to significant levels of TACs?

In the No Project Alternative (Alternative 1), the Project would not be constructed. Construction phase emissions would not occur, and operations emissions from vehicle travel would occur as in the baseline conditions.

Impact Determination

Since no construction phase emissions would occur under the No Project Alternative (Alternative 1), there would be no potential for receptors to be exposed to significant levels of TACs, and there would be no impacts.

Mitigation Measures

Mitigation is not required.

Residual Impacts

There would be no impacts.

Impact AQ-6: Would the No Project Alternative (Alternative 1) conflict with or obstruct implementation of an applicable air quality plan?

In the No Project Alternative (Alternative 1), the Project would not be constructed and therefore no conflicts or obstructions with applicable air quality plans would occur. The Project objectives, including those relating to increasing the efficiency of goods movement, would not be achieved.

Impact Determination

Since no construction 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 impacts.

3.1.5.3. Alternative 2 – Reduced Project Alternative

Under the Reduced Project Alternative (Alternative 2), the Project site area would be reduced from 89.2 acres to 52.7 acres (73 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 AQ-1: Would construction of the Reduced Project Alternative (Alternative 2) result in emissions that exceed the SCAQMD regional thresholds of significance for construction emissions?

In the Reduced Project Alternative (Alternative 2), the usable site area would decrease by half. Since construction activities would be the same, with reduced intensity, the maximum daily emissions associated with the Reduced Project Alternative (Alternative 2) would be similar or slightly less than the Proposed Project. Since the area of the Reduced Project Alternative (Alternative 2) is half that of the Proposed Project, VOC emissions from pavement and striping would be substantially less than the Proposed Project.

Impact Determination

Since construction emissions would be slightly less than the Proposed Project, which are less than significant, impacts of the Reduced Project Alternative (Alternative 2) would also be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

Impact AQ-2: Would construction of the Reduced Project Alternative (Alternative 2) result in off-site ambient air pollutant concentrations that exceed the SCAQMD thresholds of significance?

Since construction activities would essentially be the same, but with reduced intensity, the level of off-site ambient air pollutant concentrations during construction would be similar to or slightly less than the Proposed Project.

Impact Determination

Since construction emissions would be slightly less than the Proposed Project, which result in less than significant impacts, impacts of the Reduced Project Alternative (Alternative 2) would be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

Impact AQ-3: Would the Reduced Project Alternative (Alternative 2) result in operational emissions that exceed SCAQMD peak day regional emission thresholds of significance?

In the Reduced Project Alternative (Alternative 2), operational emissions would be less than the Proposed Project.

Impact Determination

Operations would be about half that of the Proposed Project given the 50 percent reduction in the operational area. The Proposed Project emissions were below the SCAQMD's daily operational threshold for all criteria air pollutants, except NOx which was estimated to be 88.89 lb/day (Table 3.1-7). Assuming a proportional decrease based on the site size, emissions of NOx under the Reduced Project Alternative (Alternative 2) would be around 44.45 lb/day, which is below the 55 lbs/day threshold Therefore, impacts for the Reduced Project Alternative (Alternative 2) are less than significant.

Project Features and Mitigation Measures

No mitigation is required; however, the Proposed Project would require the use of zero-emission operational equipment by January 1, 2030 per Project Feature PF AQ-1 (*Zero-Emission Operational Equipment*). See Section 3.1.5.1, *Proposed Project*, under Impact AQ-3, for the full text of the Project Feature.

Residual Impacts

Impacts would be less than significant.

Impact AQ-4: Would operation of the Reduced Project Alternative (Alternative 2) result in off-site ambient air pollutant concentrations that exceed SCAQMD thresholds of significance?

In the Reduced Project Alternative (Alternative 2), operational emissions would be similar to or slightly less than the Proposed Project. The off-site ambient air pollutant concentrations associated with activity at the site would be similar to or slightly less than the Proposed Project.

Impact Determination

Since impacts would be similar to or less than the Proposed Project, which had less than significant impacts, impacts for the Reduced Project Alternative (Alternative 2) are less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

Impact AQ-5: Would the Reduced Project Alternative (Alternative 2) expose receptors to significant levels of TACs?

In the Reduced Project Alternative (Alternative 2), construction activities would be the same, with reduced intensity, and operational emissions would be similar to or slightly less than the Proposed Project. The potential to expose receptors to significant levels of TACs would be similar to or slightly less than the Proposed Project.

Impact Determination

Since impacts would be similar to or less than the Proposed Project, which had less than significant impacts, impacts for the Reduced Project Alternative (Alternative 2) are less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

Impact AQ-6: Would the Reduced Project Alternative (Alternative 2) conflict with or obstruct implementation of an applicable air quality plan?

In the Reduced Project Alternative (Alternative 2), the Project site area would be reduced while 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. As the Proposed Project would not conflict with or obstruct implementation of any applicable air quality plans, and the Reduced Project Alternative (Alternative 2) is similar but with decreased intensity, the Reduced Project Alternative (Alternative 2) would also be compatible with applicable air quality plans.

Impact Determination

As with the Proposed Project, the Reduced Project Alternative (Alternative 2) would not result in an inconsistency with the AQMP, CERP, or the CAAP. Therefore, the Reduced Project Alternative (Alternative 2) would not result in a conflict with, and would not obstruct, implementation of an applicable air quality plan, and impacts would be less than significant.

Mitigation Measures

Mitigation is not required.

Residual Impacts

Impacts would be less than significant.

3.1.5.4. Summary of Impact Determinations

Table 3.1-9 summarizes the CEQA impact determinations of the Proposed Project and alternatives related to Air Quality and Health Risk. 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 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 3.1-9: Summary Matrix of Potential Impacts and Mitigation Measures for Air Quality

Alternative	Environmental Impacts	Impact Determination	Applied Project Features/Mitigation Measures	Residual Impacts
Proposed Project	**AQ-1:** Result in emissions that exceed the SCAQMD regional thresholds of significance for construction emissions	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-2: Result in construction off-site ambient air pollutant concentrations that exceed the SCAQMD thresholds of significance	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-3: Result in operational emissions that exceed SCAQMD peak day regional emission thresholds of significance	Operation emissions would be significant for NOx in all operational years	**PF AQ-1:** Zero-Emission Operational Equipment **MM AQ-1:** Zero-Emission Cargo-Handling Equipment	Significant and Unavoidable
	AQ-4: Result in operational off-site ambient air pollutant concentrations that exceed SCAQMD thresholds of significance	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-5: Expose receptors to signifi-cant levels of TACs	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-6: Conflict with or obstruct imple-mentation of an applicable air quality plan	Less Than Significant	Mitigation Not Required	Less Than Significant

Alternative	Environmental Impacts	Impact Determination	Applied Project Features/Mitigation Measures	Residual Impacts
Alt 1 – No Project	AQ-1	No Impact	Mitigation Not Required	No Impact
	AQ-2	No Impact	Mitigation Not Required	No Impact
	AQ-3	No Impact	Mitigation Not Required	No Impact
	AQ-4	No Impact	Mitigation Not Required	No Impact
	AQ-5	No Impact	Mitigation Not Required	No Impact
	AQ-6	No Impact	Mitigation Not Required	No Impact
Alt 2 – Reduced Project	AQ-1	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-2	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-3	Less Than Significant	Mitigation Not Required **PF AQ-1:** Zero-Emission Operational Equipment	Less Than Significant
	AQ-4	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-5	Less Than Significant	Mitigation Not Required	Less Than Significant
	AQ-6	Less Than Significant	Mitigation Not Required	Less Than Significant

3.1.5.5. Mitigation Monitoring

To reduce operational NOx emissions, PF AQ-1 would require a 100 percent transition to zero-emissions yard equipment by January 1, 2030. Additionally, MM AQ-1 would require use of zero-emission cargo-handling equipment at the start of operation, subject to agreement on feasibility.

PF AQ-1 and MM AQ-1 would be applied to the Proposed Project as a condition of approval. MM AQ-1 would not apply to Alternative 2 (Reduced Project Alternative). Mitigation is not applicable to Alternative 1 (No Project).

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 would be a breach of the Permit/Lease.
Timing	Prior to January 1, 2030.
Methodology	LAHD will include this Project Feature in lease agreements 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 Applicable Law comes into effect that requires the cargo-handling equipment used on site to be zero-emission equipment, the Applicable 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 the permit with Tenant(s).

3.1.6. Significant Unavoidable Impacts

Operational NOx emissions for the opening year or at full buildout would result in a significant unavoidable impact related to air quality and health risk for the Proposed Project. No other significant unavoidable impacts related to air quality and health risk would occur for the Proposed Project or alternatives.