Section 3.3

Greenhouse Gas Emissions

Summary

This section evaluates the Greenhouse Gas (GHG) emissions and climate change impacts associated with Proposed Project activities. This section includes:

- A description of the existing setting as it relates to GHG emissions and climate change;
- A discussion of regulations and policies regarding GHG that are applicable to the Proposed Project;
- A discussion of the analysis methodology;
- A summary of 1996 Certified EIR findings;
- Potential GHG emissions and impacts to climate change associated with Proposed Project activities;
- A description of mitigation measures proposed to reduce significant impacts, as applicable; and
- Residual impacts after mitigation and significance under the California Environmental Quality Act (CEQA).

Key Points

- The Proposed Project would be consistent with plans and policies intended to reduce GHG emissions and climate change impacts.
- Proposed Project GHG emissions would be less than South Coast Air Quality Management District (SCAQMD) CEQA thresholds.
- Proposed Project emissions would be less than the CEQA Baseline.
- Mitigation measures are not required.
- The Proposed Project would not result in significant and unavoidable impacts to GHG and climate change.

3.3.1 INTRODUCTION

Section 2, Project Description, describes in detail activities associated with the Proposed Project. In summary, the Proposed Project seeks to amend Permit No. 750 to allow for an extension of the lease by up to 10 years (to 2024), during which time, Phase 1 - Continued Operation would continue without change to existing activities and throughput would remain at 1.2 million tons. At the end of the 10-year period, the facility would be decommissioned and restored during Phase 2 - Non-operational Restoration Period. Phase 1 and Phase 2 activities are described in detail in Section 2.5.1, and discussed in this section as they relate to GHG.

This section describes the environmental and regulatory setting for GHG. It also describes GHG impacts that may result from implementation of the Proposed Project and provides mitigation measures, where feasible and appropriate.

3.3.2 ENVIRONMENTAL SETTING

The Proposed Project site is located in the Harbor District of the City of Los Angeles, within the South Coast Air Basin (SCAB). The SCAB consists of the non-desert portions of Los Angeles, Riverside, and San Bernadino Counties and all of Orange County, and the adjacent offshore waters, shown in

Figure 3.3.1. The air basin covers an area of approximately 6,000 square miles and is bounded on the west by the Pacific Ocean; on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains; and on the south by the San Diego County line.

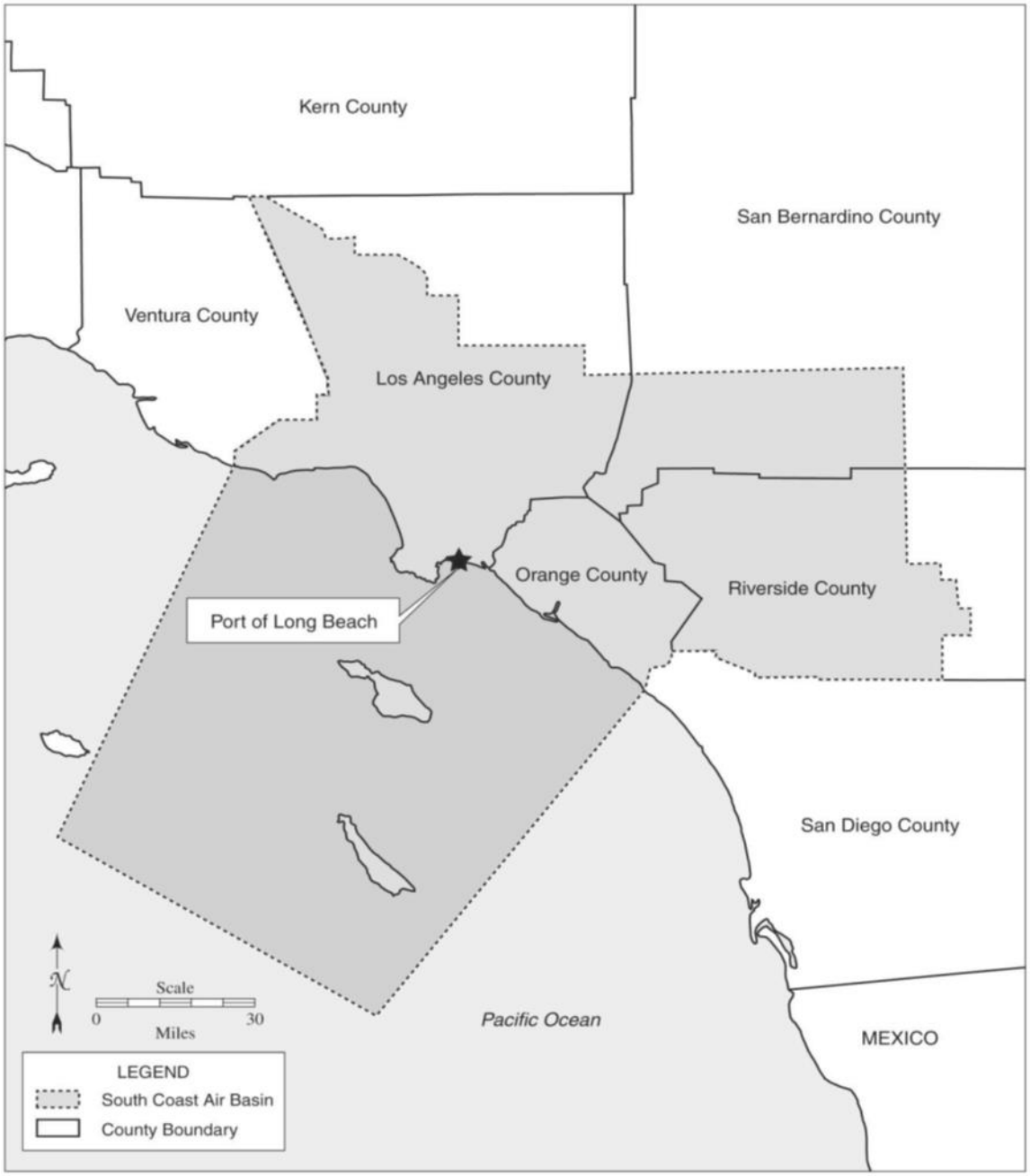

Figure 3.3.1. South Coast Air Basin

3.3.2.1 Greenhouse Gas Pollutants

GHGs are gases that trap heat in the atmosphere. The term GHGs includes gases that contribute to the natural greenhouse effect, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O),

as well as gases that are only human-made and that are emitted through the use of modern industrial products, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). These last three families of gases, while not naturally present in the atmosphere, have properties that also cause them to trap infrared radiation when they are present in the atmosphere. Together, these six gases comprise the major GHGs that are recognized by the Kyoto Accords (United Nations 1997). There are other GHGs that are not recognized by the Kyoto Accords due either to the smaller role that they play in climate change or the uncertainties surrounding their effects. Atmospheric water vapor, for example, is not recognized by the Kyoto Accords because there is not an obvious correlation between water vapor concentrations and specific human activities. Water vapor appears to act as a positive feedback mechanism; higher temperatures lead to higher water concentrations, which in turn cause more global warming (IPCC 2013).

GHGs have long atmospheric lifetimes (1 year to several thousand years) and therefore remain in the atmosphere for time periods long enough to allow them to be dispersed around the globe. GHGs are therefore considered to be global pollutants and GHG impacts to global climate change are inherently cumulative.

The effect each of these gases has on global warming is a combination of the volume of their emissions and their 100-year global warming potential (GWP). GWP, a unitless quantity, indicates, on a pound-for-pound basis, how much a gas will contribute to global warming relative to how much warming would be caused by the same mass of CO_2. CH_4 and N_2O are substantially more potent than CO_2, with GWPs (100-year horizon) of 28 and 298, respectively (IPCC 2007). In emissions inventories, GHG emissions are typically reported in terms of metric tons (MT or mt); equivalent to 1000 kilograms of carbon dioxide equivalents (CO_2e), which are calculated as the product of the mass emitted of a given GHG and its specific GWP. In this document, the unit “metric tons” is used to report GHG emissions.

The most important GHG in human-induced global warming is CO_2. While many gases have much higher GWPs than CO_2, CO_2 is emitted in vastly higher quantities and accounts for approximately 78 percent of the GWP of all GHGs emitted by the United States (EPA 2021). Fossil fuel combustion, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO_2 emissions and thus substantial increases in global atmospheric CO_2 concentrations over the last century. The International Panel on Climate Change's (IPCC) Sixth Assessment Synthesis Report (IPCC 2023) identified that the global annual average CO_2 concentration reached 410 parts per million (ppm) in 2019. This value represents an increase of about 46 percent since the pre-industrial era. The buildup of CO_2 in the atmosphere is a result of increased emissions and its relatively long lifespan in the atmosphere of 50 to 200 years.

Concentrations of the second most prominent GHG, CH_4, have also increased due to human activities such as agriculture, degradation of waste in landfills, cattle farming, and natural gas mining. In 2019, the atmospheric level of CH_4 was more than double the pre-industrial level, up to 1,886 parts per billion (ppb) as compared to 715 ppb (IPCC 2013, 2023). CH_4 has a relatively short atmospheric lifespan of only 12 years, but it has a higher GWP potential than CO_2.

N_2O concentrations have increased from about 270 ppb in pre-industrial times to about 332 ppb by 2019 (IPCC 2014, 2023). Most of this increase can be attributed to agricultural practices (such as soil and manure management), as well as fossil-fuel combustion and the production of some acids. N_2O has a 120-year atmospheric lifespan, meaning that, in addition to its relatively large GWP, its influence is long lasting, which increases its role in global warming.

3.3.2.2 Climate Change

GHGs differ from criteria pollutants in that GHG emissions do not cause direct adverse human health effects. Rather, the direct environmental effect of GHG emissions is the increase in global temperatures, which in turn has numerous indirect effects on the environment and humans. For example, some observed changes include shrinking glaciers; thawing permafrost; later freezing and earlier break-up of ice on rivers, lakes, and oceans; and shifts in plant and animal ranges (IPCC 2023). Other, longer term environmental impacts of global warming include sea level rise (SLR); changing weather patterns with increases in the severity of storms and droughts; changes to local and regional ecosystems, including the potential loss of species; and a reduction in winter snowpack.

The current understanding of climate change and adaptation options in California is summarized in California's Fourth Climate Change Assessment, a coordinated effort between the Governor's Office of Planning and Research, Energy Commission, and the Natural Resources Agency. California's Fourth Climate Change Assessment is a compilation of scientific research studies projecting climate change impacts and exploring what those impacts mean for various sectors. These forty-four technical reports and seven external contributions are accessible through the California's Fourth Climate Change Assessment website (CCA 2018).

Cal-Adapt is the state's portal for climate projections developed for California's Climate Change Assessments. Cal-Adapt allows visualizations of climate scenarios at the local level and wildfire projections for the state. Current predictions suggest that in the next 25 years California will experience higher temperatures, uncertain precipitation, reduced snowpack, SLR, and increased wildfires. More specifically, California's Fourth Climate Change Assessment predicts the following (CalAdapt 2023):

- Temperature near the Port of Los Angeles (Port or POLA): CalAdapt data shows that temperature may increase by approximately 2.7 degrees Fahrenheit (°F) by 2050 and 3.2 °F by 2070.
- Precipitation near the Port: CalAdapt shows that precipitation projections do not show a consistent trend during the next century. The Mediterranean seasonal precipitation pattern is expected to continue, with most precipitation falling during winter from North Pacific storms. However, even modest changes would have a significant impact because California ecosystems are conditioned to historical precipitation levels and water resources are nearly fully utilized.
- Snowpack in California: CalAdapt indicates that if GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack. How much snowpack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under wetter climate projections, the loss of snowpack would pose challenges to water managers and hamper hydropower generation.
- SLR near the Port: CalAdapt SLR estimates the fraction of a year during which sea level may exceed the historical maximum of 150 centimeters (cm). The middle emissions estimate of SLR projections shows that by 2070, sea level may exceed the historical maximum 1 percent of the year but may exceed it 27 percent by 2090. The high emissions estimate of SLR projections shows that by 2070, sea level may exceed the historical maximum 17 percent of the year but may it increase 78 percent by 2090.
- Wildfire in California: The frequency, severity, and impacts of wildfire are sensitive to climate change as well as development patterns, temperature increases, wind patterns, precipitation changes, and pest infestations. CalAdapt shows that much of California can expect an increased risk of wildfire, with a wildfire season that starts earlier, runs longer, and features more extreme fire events.

In addition to SLR information in California's Climate Assessment, the state prepared the Sea-Level Rise Guidance (SLR Guidance) in 2018. The guidance was prepared by the Ocean Protection Council, the California Natural Resources Agency, the Office of Planning Research, and the California Energy Commission (OPC 2018). The SLR Guidance presents a synthesis of available science on SLR projections, an approach for state agencies and local governments to evaluate those projections and related hazard information in decision making, and preferred coastal adaptation approaches. Table 30 of the SLR Guidance shows that coastal areas in Los Angeles may experience SLR between 3.8 to 8.4 millimeters (mm) for a high emissions scenario by 2050, 2.3 to 7.3 mm SLR between 2060 and 2080 for a low emissions scenario, and 5.5 to 13 mm SLR between 2060 and 2080 for a high emissions scenario.

Both CalAdapt and the SLR Guidance predict acceleration in SLR, but the rate of acceleration and inundation scenarios vary depending on global CO_2 concentrations and analysis year. In 2018, the POLA conducted the Seal Level Rise Adaptation study to assess the potential impacts of rising sea levels on the Port's infrastructure and operations (POLA 2018). Findings of the study are discussed in Section 3.3.6.3.

As stated above, climate change is predicted to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. This is likely to increase the risk of mortality and morbidity due to heat-related illness on the elderly; individuals with chronic conditions such as heart and lung disease, diabetes, and mental illnesses; infants; the socially or economically disadvantaged; and those who work outdoors. The expected increase in temperatures and resulting increases in ultraviolet radiation due to climate change are likely to exacerbate existing air quality problems unless measures are taken to reduce GHGs as well as air pollutants and their precursors.

A 2008 study identified direct links between increased levels of CO_2 in the atmosphere and increases in human mortality (Jacobson 2008). The study determined the amounts of ozone and airborne particles that result from temperature increases in CO_2 emissions. The study showed two important effects:

- Higher temperatures due to CO_2 increased the chemical rate of ozone production in urban areas; and
- Increased water vapor due to CO_2-induced higher temperatures boosted chemical ozone production even more in urban areas.

The study further indicated that the effects of CO_2 emissions are most pronounced in areas that already have significant pollution, such as California. Many of the plans, policies, and regulations identified in the Regulatory Setting section of this document are directed at reducing these impacts.

3.3.3 REGULATORY SETTING

Climate change has been recognized as a threat to the global climate, economy, and population. As a result, the climate change regulatory setting – federal, state, and local - is complex and evolving. This section identifies key legislation, executive orders (Eos), and seminal court cases related to climate change germane to the Proposed Project.

Sources of air emissions in California are regulated by the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and SCAQMD. In addition, regional and local jurisdictions play a role in GHG management. This section provides a summary of key EOs, regulations, and policies that potentially apply to the Proposed Project but is not intended to present an all-inclusive listing of applicable requirements.

3.3.3.1 Federal

April 2007 Supreme Court Ruling

In Massachusetts et al. v. Environmental Protection Agency et al. (549 U.S. 497), the U.S. Supreme Court ruled that GHGs were air pollutants within the meaning of the Clean Air Act (CAA) and that the act authorizes the EPA to regulate CO_2 emissions from new motor vehicles, should those emissions endanger the public health or welfare. The Court did not mandate that the EPA enact regulations to reduce GHG emissions but found that the only instances where the EPA could avoid taking action were if it found that GHGs do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHGs contribute to climate change. In 2009, the EPA Administrator signed two distinct findings regarding GHGs under CAA Section 202(a).

- Endangerment Finding: the EPA Administrator found that the current and projected concentrations of the six key GHGs (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: the EPA Administrator found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

The findings themselves did not impose requirements on industry or other entities. However, this action was a prerequisite to finalizing the EPA's proposed GHG emissions standards for light-duty vehicles (EPA 2009).

GHG Standards for Medium- and Heavy-Duty Vehicles

In 2011, EPA in coordination with National Highway Traffic Safety Administration (NHTSA) issued Phase 1 GHG emission and fuel economy standards for medium- and heavy-duty trucks manufactured in model years 2014 to 2018. In 2016, EPA and NHTSA jointly issued Phase 2 standards for medium- and heavy-duty vehicles through model year 2027 designed to further improve fuel efficiency and reduce CO_2 emissions.

In April 2023, EPA announced a proposal to revise existing standards to reduce GHG emissions from heavy-duty vehicles in model year 2027 and set new, more stringent standards for model years 2028 through 2032. This proposed program, known as Phase 3, would apply to heavy-duty vocational vehicles (i.e., delivery trucks, refuse haulers, public utility trucks, transit, shuttle, school buses, etc.) and tractors (i.e., day cabs and sleeper cabs on tractor-trailer trucks). These standards apply to vehicle manufacturers and would not require specific action on the part of the Proposed Project.

GHG Standards for Light Duty Vehicles

The EPA has implemented several regulatory frameworks for GHG emissions from vehicles. One key framework is the Corporate Average Fuel Economy (CAFE) standards, administered jointly by the EPA and the NHTSA. Under the CAFE standards, the EPA sets GHG emission standards for passenger cars and light-duty trucks, while the NHTSA sets fuel economy standards. These standards are designed to improve vehicle fuel efficiency and reduce GHG emissions from the transportation sector. The following is a summary of the key phases.

- Phase I (2012–2016): The EPA issued the first set of GHG emission standards for passenger cars and light-duty trucks for model years 2012 to 2016. These standards aimed to reduce GHG emissions and improve fuel efficiency.

- Phase II (2017–2025): The EPA and NHTSA jointly established more stringent GHG emission and fuel economy standards for passenger cars and light-duty trucks for model years 2017 to 2025. These standards require automakers to achieve increasingly lower emission levels and higher fuel economy over time.

These standards apply to vehicle manufacturers and would not require specific action on the part of the Proposed Project.

3.3.3.2 State

California has enacted a variety of laws that relate to climate change, many of which set aggressive goals for GHG reductions within the state and are based on executive orders issued by state governors. The discussion below provides an overview of the CARB and Office of Planning and Research documents and of the primary executive orders and legislation that relates to climate change and may affect the GHG emissions associated with the Proposed Project. Many of the plans, policies, and regulations in this section apply to state agencies and local governments and would not require specific action on the part of the Proposed Project; they are included here to highlight the GHG framework in California.

Executive Order S-3-05, Assembly Bill 32, 2008 Scoping Plan, and 2014 Scoping Plan Update

In 2005, Executive Order (EO) S-03-05 established the following state targets: (1) year 2000 levels by 2010; (2) year 1990 levels by 2020; and (3) 80 percent below 1990 levels by 2050. EO S-3-05 established state targets and directed the state legislature to develop legislation to address those targets.

In 2006, Assembly Bill (AB) 32 codified the first two targets of EO S-3-05 into state law. AB 32 directed state regulatory agencies to develop rules and regulations to meet the 2020 state targets, required CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions, and required CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG reductions.

In 2008, CARB adopted the AB 32 Scoping Plan, which set forth the framework for facilitating the state's AB 32 GHG goals. The Scoping Plan's GHG reduction actions included direct regulations, compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. In 2014, CARB adopted an update to the 2008 Scoping Plan that built upon the initial Scoping Plan with new strategies to achieve the third AB 32 state target, 1990 emission levels by 2020.

The 2008 Scoping Plan and 2014 Scoping Plan Update envisioned that reductions in GHG emissions would come from virtually all sectors of the economy and be accomplished from a combination of policies, planning, direct regulations, market approaches, incentives, and voluntary efforts. These efforts target GHG emission reductions from cars and trucks, electricity production, fuels, and other sources.

EO B-30-15, Senate Bill 32, and 2017 Scoping Plan Update

In April 2015, EO B-30-15 established an interim, Statewide GHG emissions-reduction target of 40 percent below 1990 levels by 2030 and directed state legislature to develop legislation to address this state target. This interim target was established in order to ensure the state meets the EO S-3-05 target of reducing GHG emissions to 80 percent below 1990 levels by 2050.

In 2016, Senate Bill (SB) 32 codified the EO B-30-15 target and directed state regulatory agencies to develop rules and regulations to meet the target. CARB adopted the 2017 Scoping Plan Update to

align with the EO B-30-15 target. The 2017 Scoping Plan Update focused on the transportation sector, aiming to reduce its significant contribution to GHG emissions; measures included expanding zero-emission vehicle adoption, improving public transit, promoting sustainable land use planning, and encouraging alternative fuels and vehicle technologies. The Scoping Plan also highlighted the importance of expanding renewable energy generation and improving energy efficiency across sectors and developed strategies to promote energy efficiency and low-carbon technologies. The Scoping Plan also introduced strategies to reduce Short-Lived Climate Pollutants (SLCP), such as methane and black carbon, which have significant near-term warming effects.

EO B-55-18, AB 1279, and 2022 Scoping Plan Update

In 2018, EO B-55-18 established the following GHG emission reduction targets for California state agencies: 1) Carbon neutrality by 2045; and 2) 85 percent reduction below 1990 levels by 2045. AB 1279 codified these targets.

In 2022, CARB released the 2022 Scoping Plan Update to assess progress towards achieving the SB 32 2030 target of 40 percent below 1990 emission levels and lay out a path to achieve carbon neutrality in 2045 to align with EO B-55-18 and AB 1279. The Scoping Plan expands upon earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The Scoping Plan also incorporated an approach to decarbonize every sector of the economy and reduce petroleum demand by 94 percent.

Idling Restrictions

CARB set regulations to restrict idling from commercial vehicles (Title 13 California Code of Regulations [CCR], Section 2485) and off-road equipment such as construction equipment (Title 13, CCR, Section 2449) to 5 minutes primarily to control airborne toxic emissions from diesel fuel combustion. However, idling restrictions have the co-benefit of also reducing GHG emissions.

Low Carbon Fuel Standard

CARB identified the Low Carbon Fuel Standard (LCFS) as a Discrete Early Action item under AB 32 and adopted the standard in 2009 (17 California Code of Regulations [CCR] 95480–95490). The LCFS intended to reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by 10 percent by 2020. CARB extended the LCFS program to 2030, making changes to the design and implementation of the program including doubling the statewide carbon intensity reduction to 20 percent by 2030. The extension also added new crediting opportunities to promote zero-emission vehicle adoption and advanced technologies to achieve decarbonization in the transportation sector. Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the “lifecycle” of a transportation fuel. This program applies to fuel providers and would not require specific action on the part of the Proposed Project.

Advanced Clean Truck Program

CARB developed and the Office of Administrative Law (OAL) approved the Advanced Clean Truck (ACT) Program in 2021. ACT is intended to increase the penetration of zero-emission heavy-duty trucks into the market. A key feature is a zero-emission vehicle (ZEV) truck sales mandate that would begin in 2024 and increase to up to 75 percent ZEV by 2035 depending on truck gross vehicle weight rating. This program applies to vehicle sales and would not require specific action on the part of the Proposed Project.

Advanced Clean Cars Program

CARB adopted and OAL approved the Advanced Clean Cars II regulations in 2022, imposing the next level of low-emission and zero-emission vehicle standards for vehicle model years 2026–2035. The program aims to help meet federal ambient air quality ozone standards and California's carbon neutrality targets. A key feature is ZEV passenger cars, trucks, and SUVs sales mandate that would ramp up to 100-percent ZEV sales by 2035. This program applies to vehicle sales and would not require specific action on the part of the Proposed Project.

Ocean-Going Vessels At-Berth Regulation

CARB approved the original Ocean-Going Vessels At-Berth Regulation in 2007, setting control requirements for emissions from container, refrigerated cargo (reefer), and cruise vessels while hoteling at berth. The At-Berth Regulation was amended on December 30, 2020, increasing its requirements for already-covered vessel types, and expanding its requirements to include auto carriers (roll-on/roll-off vessels) and tanker ships to control hoteling emissions at-berth starting in 2025 for POLA and the Port of Long Beach. Even though this regulation is meant to curtail local criteria pollutant emissions, it may have some co-benefits for reducing GHGs if controlled in conjunction with renewable-based electricity. It must be noted that the bulk vessel category, the type of vessels that would be part of the Proposed Project and its alternatives, do not have requirements under the current ruling.

Renewable Portfolio Standard, SB 100 & EO B-55-18

California's Renewable Portfolio Standard (RPS) established California's renewable electricity procurement target of 33 percent by 2020. The RPS was revised, and its goals accelerated in 2015, increasing California's renewable electricity procurement target to 50 percent by 2030. The latest revisions were promulgated via SB 100 and EO B-55-18 in 2018. EO B-55-18 and SB 100 were signed on the same day. EO B-55-18 setting the new state-wide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045. Specifically, it set a 2045 goal of powering all retail electricity sold in California and state agency electricity needs with renewable and zero-carbon resources, including those such as solar and wind energy that do not emit climate-altering GHGs. SB 100 increased the RPS target to 60 percent by 2030 and required that 100 percent of the state's electricity come from carbon-free resources by 2045. The RPS applies to power providers and would not require specific action on the part of the Proposed Project.

3.3.3.3 Local

The Sustainable City pLAn / LA Green New Deal pLAn

The 2015 City of Los Angeles Sustainable City pLAn (pLAn) outlined the City's long-term sustainability goals and targets across various sectors, including energy, transportation, water, waste, and environmental justice through 2035. The pLAn was revised in 2019 as LA's Green New Deal pLAn, which extended the roadmap through 2050. Some key features include 100 percent renewable energy by 2045, 100 percent net-zero carbon new buildings by 2050, and 100 percent ZEVs by 2050. In addition, the Green New Deal pLAn set a target aimed to reduce Port-related GHG emissions by 80% by 2050 via the following:

- Incorporating sustainable practices in tenant lease agreements at cargo terminals by 2030;
- Developing technology and pilot at-berth controls for liquid bulk vessels by 2028;
- Deploying 50-100 zero emission trucks in a clean truck pilot by 2035; and,
- Implementing an updated Clean Truck Program with prioritization on zero emission trucks.

City policies and plans typically apply to City agencies, local governments, or are Port-wide actions and would not require specific action on the part of the Proposed Project; they are included here to highlight the GHG framework in California.

Port of Los Angeles Policies

Port Climate Action Plan (CAP)

The 2007 Green LA Plan led the Los Angeles Harbor District (LAHD) to develop an individual CAP to explore opportunities to reduce GHG emissions from municipal operations (such as Port buildings and Port workforce operations). The CAP outlines specific steps that the LAHD has taken and will take on global climate change. These steps include specific actions for energy audits, green building policies, onsite photovoltaic solar energy, green energy procurement, tree planting, water conservation, alternative fuel vehicles, increased recycling, and green procurement.

The CAP also identifies San Pedro Bay Ports Clean Air Action Plan (CAAP) measures that have significant GHG reduction co-benefits, such as the Vessel Speed Reduction Program (VSRP) and Alternative Marine Power (AMP). GHG reduction needs from Port's tenant activities are recognized in the CAP, but are deferred to the CAAP, which addresses tenant operations.

In addition, the June 2008 Port of Los Angeles Sustainability Assessment contains an assessment of existing programs and policies against the eight goals that were identified in Executive Directive No. 10 on Sustainability Practices in the City of Los Angeles. LAHD has also completed annual GHG inventories of the Port's municipal activities and reported these to third-party registries since 2006. LAHD's Annual Inventory of Air Emissions has also included GHG estimates for transportation activities associated with goods movement for ocean-going vessels (OGVs), harbor craft, trucks, locomotives, and cargo handling equipment since 2006. LAHD expanded the GHG inventories to include an expanded geographical delineation for OGVs, trucks, and locomotives. These annual inventories and their methodology reports can be found on the Port's website (POLA 2022, POLA 2023). The CAP applies to Port-wide sources and would not require specific action on the part of the Proposed Project.

San Pedro Bay Ports Clean Air Action Plan

The Port, in conjunction with the Port of Long Beach and with the cooperation of SCAQMD, CARB, and EPA, adopted the CAAP in 2006, adopted an updated CAAP in 2010, and in 2017 (LAHD 2006-2017). The CAAP is a sweeping plan designed to reduce the health risks posed by air pollution from all port-related emissions sources, including ships, trains, trucks, terminal equipment, and harbor craft. In addition, the 2017 CAAP Update aligns with the California Sustainable Freight Action Plan, supports the zero-emissions and freight efficiency targets set by the state and other agencies, and contains the following GHG reduction goals:

- Reduce GHGs from Port related sources to 40 percent below 1990 levels by 2030; and
- Reduce GHGs from Port related sources to 80 percent below 1990 levels by 2050.

In addition, other CAAP Update strategies not directly related to GHG reduction (i.e., criteria pollutant and cancer risk reduction strategies) may result in GHG reductions as older technologies are replaced with newer, more fuel-efficient ones.

Port of Los Angeles Actions to Reduce GHG Emissions by 2050

In September 2014, LAHD prepared Actions to Reduce GHG Emissions by 2050 and submitted the document to the City of Los Angeles (POLA 2014). The document presents a summary of the actions

being undertaken by LAHD to reduce GHG emissions associated with LAHD operations, as well as its leadership role to help the maritime industry reduce its emissions occurring in the Port area. The document shows that quantifiable progress has been made in reducing GHG emissions reductions from 1990 to 2013 and outlines actions/strategies that are either being implemented or evaluated for possible implementation, in an effort to continue to reduce GHG emissions. While not a legal mandate, the plan establishes a Port-wide goal of 35 percent reduction by 2035 and 80 percent reduction by 2050.

LAHD Sustainable Construction Guidelines

The LAHD adopted the Sustainable Construction Guidelines (SCG) in 2009. As part of LAHD's overall environmental goals and CAAP strategies, any construction at the Port must follow the SCG. The guidelines reinforce and require sustainability measures under construction contracts, addressing a variety of emission sources that operate at the Port. In addition, the LAHD Construction Guidelines include Best Management Practices based on CARB-verified best available control technology (BACT), designed to reduce air emissions from construction sources. The SCG would apply to all sources, such as construction equipment and construction trucks, associated with the Proposed Project.

Additional Rules, Regulations and Policies

In addition to the above, rules, regulations, and policies, discussed in Chapter 3.1, Air Quality that reduce fuel consumption and increase energy efficiency, would have the co-benefit of also reducing GHG emissions.

3.3.4 METHODOLOGY

This section summarizes the methodology used to quantify GHG emissions from continued operation (Phase 1) and non-operational restoration (Phase 2) activities. Phase 1 and Phase 2 activities are described in detail in Section 2.5.1 of this SEIR. The analysis assumptions, source characteristics, activity, emission factors, and other supporting information are presented in a tabular format Appendix B, Air Quality and GHG Calculation Tables.

Annual GHG emissions were calculated for CO_2, CH_4, and N_2O associated with Phase 1 and Phase 2 activities. Emissions were converted to CO_2e using the 100-year horizon GWPs of 28 for CH_4 and 298 for N_2O from the 4th IPCC Assessment Report (IPCC 2007). The 4th IPCC Assessment Report was chosen for this analysis because it is consistent with the Port's 2023 Emissions Inventory Methodology Document and the EPA's 2021 Inventory of U.S. Greenhouse Gas Emissions and Sinks (POLA 2023, EPA 2021).

Impacts were determined by subtracting the CEQA Baseline, which is discussed at the end of this section, from the maximum of Phase 1 and Phase 2 emissions, and comparing the resulting increment to SCAQMD significance thresholds, discussed in Section 3.3.5 Thresholds of Significance.

The emissions quantified in this analysis were calculated using the latest available data, assumptions, and emission factors at the time this document was prepared. The numerical results presented in the tables of the report were rounded, often to the nearest whole number, for presentation purposes. As a result, totals presented in the tables may not add exactly.

The activity descriptions and activity data used in the GHG emission calculations for baseline and the Proposed Project are the same as described in Section 3.1, Air Quality and Meteorology, are not repeated here. The methodologies used to quantify GHG emissions are also very similar to those discussed in Section 3.1 and are not repeated here. However, in cases where the GHG methodologies

differ slightly from those discussed in Section 3.1, they are discussed here. The following summarizes the methodology for quantifying GHG emissions by source type.

Summary of Phase 1 Activities and Analysis Methodology

- Phase 1 Material Transport Sources.
  - Dry-bulk vessels (engine exhaust) - Activity and methodology are essentially the same as those discussed in detail in Section 3.1.4, Air Quality, Methodology, Summary of Phase 1 Activities and Methodology. Annual activity reflects 28 vessels. The only key difference from the methodology discussed in Section 3.1.4 is that GHG emissions were calculated for vessels transiting beyond the SCAB over-water boundary of approximately 50 nautical miles, to the California border of approximately 170 nautical miles.
  - Tugboats (engine exhaust) - Annual activity reflects 2 tugboats per vessel, necessary to assist 28 annual vessels, and is the same as that discussed in Section 3.1.4, Air Quality, Methodology, Summary of Phase 1 Activities and Methodology. Emission factors are different from those discussed in Section 3.1.4 and reflect zero-hour emission factors reported in the Port's 2023 Emissions Inventory Methodology Document (POLA 2023). Zero-hour emission factors are appropriate because engine deterioration does not significantly affect GHG emission factors (per POLA 2023 Emissions Inventory Methodology Report Table 3.2). Tugboat emission factors are presented in Appendix B, Table A-23.
  - Trucks (exhaust) - Annual activity reflects 93,566 truckloads and transit distances provided by the SA Recycling (Applicant) based on 2021/2022 activity and is not expected to change in the future. Truck activity and transit distance are presented and referenced in Appendix A, Table A-2. Emission factors were obtained from CARB's Emission Factors Model (EMFAC) model discussed in Section 3.1.4 and the emission methodology is the same as that discussed in detail in Section 3.1.4 (CARB 2021).
  - Worker vehicles (engine exhaust) - Annual activity was calculated by multiplying the 140 average number of daily workers, provided by the Applicant, by 365 annual operating days. This is a conservative assumption because the facility typically operates Monday through Saturday; activities on Sunday occur on days a ship is at berth. The transit distance is the same as that discussed in Section 3.1.4. Activity and transit distance are presented and referenced in Appendix B, Table A-2. Emission factors were obtained from CARB's EMFAC model, also discussed in Section 3.1.4. The emission methodology is the same as that discussed in detail in Section 3.1.4.
  - Locomotives (engine exhaust) – The Applicant reported 599 annual rail cars were delivered to the facility in 2021/2022 and that 3 rail cars were brought to the facility at any one time. It was assumed that one locomotive was required per visit. Therefore, a total of 200 annual locomotive visits were calculated to have occurred and would continue to occur in the future. Based on the distance from nearby rail yards, it was estimated that 3 hours would be needed per each locomotive visit and therefore, 600 hours of annual locomotive use. The emission methodology is the same as that discussed in detail in Section 3.1.4.
  - Phase 1 On-Site Sources Subject to Annual Emissions Reporting (AER) (engine exhaust). As discussed in Section 3.1.4, annual emissions of criteria pollutants from stationary material handling and material processing sources were quantified by the Applicant and reported to the SCAQMD as part of the SCAQMD's AER program. Although GHG emissions are not subject to the AER program, annual fuel use was reported by equipment and fuel type. GHG emissions were calculated as the product of annual fuel use and emissions factors reported in The Climate Registry (TCR). GHG emissions associated external combustion sources were calculated as the product of fuel use and emission factors

specific to each fuel type. Emission factors were obtained from TCR Tables 1.1 and 1.7. GHG emissions associated with internal combustion sources were calculated using emission factors from the TCR Tables 1.1 and 2.7.

- Phase 1 On-Site Sources not Subject to AER Reporting (engine exhaust). Emissions from mobile equipment and loading/unloading activities, not subject to AER reporting, were calculated based on the Applicant's 2021/2022 inventory of equipment and fuel use. GHG emissions associated external combustion sources, all the sources in this category, were calculated as the product of fuel use and emission factors specific to each fuel type. Emission factors were obtained from TCR Tables 1.1 and 1.7.
- Phase 1 Indirect GHG Emissions (electricity use). Indirect GHG emissions were calculated based on Phase 1 electricity use. Electricity use is directly linked to material throughput and was provided by the Applicant for 2021/2022 activities. 2021/2022 activity and associated electricity use would not change for Phase 1 activities. Emissions were calculated as the product of electricity use and emission factors where emission factors were obtained from TCR, Table 3.1. Emission factors are presented and referenced in Appendix B, Table A-53.

Summary of Phase 2 Activities and Analysis Methodology

- Phase 2 One Dry-Bulk Vessel (engine exhaust). One vessel would be needed for one day to load and transport approximately 5,500 tons of processed metal from dismantled on-site structures. Vessel emissions were calculated using the same methodology discussed in Phase 1 for dry-bulk vessels.
- Phase 2 Tugboats (engine exhaust). Two tugboats would be used to assist the vessel. The same methodology described in Phase 1 was used in the analysis of Phase 2 tugboats.
- Phase 2 Equipment Exhaust, Vehicle Exhaust, and Indirect Emissions from Electricity Use. The same methodology as discussed in Section 3.1.4 was used to calculate GHG emissions associated with Phase 2 non-shipping emissions. In summary, California Emissions Estimator Model (CalEEMod) version 2022.1.1.13 model was used to quantify emissions from Phase 2 non-vessel activities (CAPCOA 2022). The CalEEMod model is approved by the SCAQMD and is well suited to many land development projects. The model uses emission factors for off-road equipment and on-road vehicles from the CARB emissions inventory. The activity schedule and equipment utilization, developed and provided by the Applicant, were used as CalEEMod input, and are included in Appendix B, Table A-55, CalEEMod Output. CalEEMod default values were used in instances where equipment utilization was unavailable from the project proponent or LAHD.

CEQA Baseline

The CEQA Baseline is discussed in detail in Section 2.4.7 of Chapter 2, Project Description. In summary, the CEQA Baseline for the Proposed Project is existing operation in Fiscal Year 2021/2022. CEQA Baseline emissions were calculated using the methodology discussed above and are presented in Table 3.3-1 below.

Table 3.3-1. CEQA Baseline, GHG Emissions (metric tons per year)

Source Category	CO_2	CH_4	N_2O	CO_2e
Vessels - at Berth	1,190	0	0	1,209
Vessels – Transit	2,174	0	0	2,208
Vessels – Anchorage	358	0	0	364
Tugboats	94	0	0	95

Table 3.3-1. CEQA Baseline, GHG Emissions (metric tons per year)

Source Category	CO_2	CH_4	N_2O	CO_2e
Trucks	9,308	0	1	9,751
Rail	82	0	0	83
Onsite Equipment	4,268	0	0	4,374
Worker Vehicles	608	0	0	615
Indirect GHG Emissions from Electricity Use	3,999	0	0	4,015
2021/2022 CEQA Baseline	**22,082**	**1**	**2**	**22,714**

Notes:
Emissions may not add exactly due to rounding.
CO_2 equivalent (CO_2e) is the product of the emissions of a given GHG and its specific GWP. See Section 3.3.4, Methodology.

3.3.5 THRESHOLDS OF SIGNIFICANCE

CEQA Guidelines Appendix G (California Code of Regulations [CCR] Title 14, Division 6, Chapter 3, Section 15000–15387) recommends that significance criteria established by the applicable air quality management district or air pollution control district be relied upon to make determinations of significance and recommends consideration of the following in assessing impacts. In addition, CEQA also affords the lead agency discretion to evaluate the significance of GHG emissions quantitatively or qualitatively, to select the model or methodology it considers appropriate for doing so, provided it supports its decision with substantial evidence, and recommends consideration of the following in assessing GHG impacts:

Would the project:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions?

The Initial Study/Notice of Preparation (IS/NOP) addressed both questions and determined that the first question would be evaluated further in the SEIR and that the second question would be discussed further in the SEIR as an informational item. Therefore, in accordance with the determination made in the IS/NOP, this assessment provides additional review in Section 3.3.6.1 on whether the Proposed Project would generate GHG emissions, either directly or indirectly, and on Section 3.3.6.2 on whether implementation of the Proposed Project would produce any new impacts regarding consistency with relevant plans, policies and regulations.

The CEQA guidelines do not specify significance thresholds and allow 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 in 2008 adopted a threshold of 10,000 metric tons per year (mty) of CO_2e for industrial projects. This threshold has been included as part of the SCAQMD Air Quality Thresholds since 2008 (SCAQMD 2008, SCAQMD 2023).

Finally, 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 quantitative 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 under the subsections on sea level rise in Section 3.3.6.3.

3.3.6 IMPACT DETERMINATION

3.3.6.1 Impact GHG-1: Would the Proposed Project generate GHG emissions, either directly or indirectly, that would exceed the SCAQMD 10,000 mty CO_2e threshold?

Discussion of 1996 Certified EIR Findings

The 1996 Certified EIR did not evaluate GHG impacts because the document predates CEQA Guidelines recommending consideration of GHG impacts.

Impacts of the Proposed Project without Mitigation

Phase 1 and Phase 2 activities would result in direct GHG emissions from engine exhaust and indirect GHG emissions from electricity use. Table 3.3-2 summarizes GHG emissions by source category. The CEQA increment was determined by subtracting the CEQA Baseline from the maximum of Phase 1 and Phase 2 annual emissions. Table 3.3-2 shows that the CEQA increment would be below the SCAQMD significance threshold and that emissions would be less than the CEQA Baseline.

The table shows that Phase 1 truck and worker vehicle emissions would be reduced, in comparison to the CEQA Baseline, as older vehicles are replaced with more fuel efficient and electric vehicles, per existing regulatory requirements. This reduction is incorporated into CARB's EMFAC model and is reflected in the analysis. Conversely, although it is anticipated that future indirect GHG emissions associated with electricity use would be reduced in accordance with California's RPS, which set a 60 percent renewable electricity procurement target by 2030, as discussed in Section 3.3.3.2, the anticipated reduction was conservatively not accounted for in the analysis. It should also be noted that the analysis calculated emissions for the first year of activity under the proposed 10-year lease and did not take credit for anticipated emission reductions, due to existing regulatory requirements beyond the first year; future emissions were assumed to remain unchanged after the first year of the proposed 10-year lease. This is a conservative approach, as emissions would reasonably be expected to decrease in future years due to more stringent regulatory requirements.

As discussed in Section 3.1.4, Methodology, Phase 2 non-vessel emissions were calculated, using CalEEMod, for each year of activity. Vessel emissions were calculated using the same methodology used to calculate emissions during Phase 1 activities.

As discussed in Section 3.3.4, Methodology, the CEQA increment was determined by subtracting the CEQA Baseline from the maximum of Phase 1 and Phase 2 emissions, and comparing the resulting increment to SCAQMD significance thresholds, discussed in Section 3.3.5 Thresholds of Significance. Since Phase 1 has the higher emissions, it was used for determining potential impacts.

Table 3.3-2. Proposed Project Annual GHG Emissions (metric tons/year)

Source Category	CO_2	CH_4	N_2O	CO_2e
2021/2022 Baseline				
Vessels - at Berth	1,190	0	0	1,209
Vessels – Transit	2,174	0	0	2,208

Table 3.3-2. Proposed Project Annual GHG Emissions (metric tons/year)

Source Category	CO_2	CH_4	N_2O	CO_2e
Vessels – Anchorage	358	0	0	364
Tugboats	94	0	0	95
Trucks	9,308	0	1	9,751
Rail	82	0	0	83
Onsite Equipment	4,268	0	0	4,374
Worker Vehicles	608	0	0	615
Indirect GHG Emissions from Electricity Use	3,999	0	0	4,015
2021/2022 Baseline	**22,082**	**1**	**2**	**22,714**
Proposed Project - Phase 1				
Vessels - at Berth	1,190	0	0	1,209
Vessels – Transit	2,174	0	0	2,208
Vessels – Anchorage	358	0	0	364
Tugboats	94	0	0	95
Trucks	9,299	0	1	9,734
Rail	82	0	0	83
Onsite Equipment	4,268	0	0	4,374
Worker Vehicles	585	0	0	591
Indirect GHG Emissions from Electricity Use	3,999	0	0	4,015
Proposed Project - Phase 1	**22,050**	**1**	**2**	**22,673**
Proposed Project - Phase 2				
2034 Equipment Exhaust, Vehicle Exhaust, Electricity Use	199	0	0	200
2035 Equipment Exhaust, Vehicle Exhaust, Electricity Use	780	0	0	791
2035 Shipping Emissions				
Vessels - at Berth	10	0	0	10
Vessels – Transit	106	0	0	107
Vessels – Anchorage	0	0	0	0
Tugboats	3	0	0	3
2036 Equipment Exhaust, Vehicle Exhaust, Electricity Use	1,183	0	0	1,233
2037 Equipment Exhaust, Vehicle Exhaust, Electricity Use	863	0	0	897
Proposed Project - Phase 2 (max annual)	**1,183**	**0**	**0**	**1,233**
CEQA Impacts				
CEQA Threshold				*10,000*
CEQA Increment	*-32*	*0*	*0*	*-41*
CEQA Significant Impact?				*No*

Notes:
Emissions may not add exactly due to rounding.
CO_2 equivalent (CO_2e) is the product of the emissions of a given GHG and its specific GWP. See Section 3.3.4, Methodology.

Mitigation Measures Applicable to the Proposed Project

No mitigation measures are needed.

Significance After Mitigation

The Proposed Project would not result in any new significant impacts under Impact GHG-1.

3.3.6.2 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?

Discussion of 1996 Certified EIR Findings

The 1996 Certified EIR did not evaluate GHG impacts because the document predates CEQA Guidelines recommending consideration of GHG impacts.

Impacts of the Proposed Project without Mitigation

Table 3.3-3 summarizes the consistency of the Proposed Project with key relevant GHG reduction plans, policies or regulations.

Table 3.3.-3. Consideration of State and Local GHG-Reducing Plans and Policies

Plan or Policy	Plan/Policy Measure	Discussion
Standards for Medium- and Heavy-Duty Vehicles	Phases 1, 2, and 3 set GHG emission and fuel economy standards for medium- and heavy-duty vehicles.	*No Conflict.* The standards require vehicle manufacturers to achieve increasingly lower emission levels and higher fuel economy over time. Medium- and heavy-duty vehicles would be subject to these standards. No element of the Proposed Project would conflict with the standards.
California GHG Reduction Targets	AB32 Targets: Year 2000 levels by 2010 Year 1990 levels by 2020 80% below 1990 levels by 2050 SB32 Target: 40 percent below 1990 levels by 2030 AB1279 Targets: Carbon neutrality by 2045 85% reduction below 1990 levels by 2045 CARB Scoping Plans 2008, 2014, 2017, 2022 developed strategies to achieve California's GHG reduction targets.	*No Conflict.* California established statewide goals but did not identify measures directly applicable at a project-level. The Proposed Project's vehicle, ship, tugboat, and off-road equipment use and associated fuels would be subject to State's regulations and requirements that are designed to accelerate the transition to zero-emission technologies. No element of the Proposed Project would impede California's progress toward transition to low- or zero-emission vehicles and low-carbon and alternative fuels. Electricity would be sourced from the Los Angeles Department of Water and Power (LADWP), which is subject to the RPS requirements. Therefore, electricity used at the site would comply with state electricity sector GHG reduction strategies. No element of the Proposed Project would impede California's progress toward renewable energy goals.
Low Carbon Fuel Standard	Set latest statewide carbon intensity reduction to 20 percent by 2030.	*No Conflict.* This regulation applies primarily to California's fuel providers. No element of the Proposed Project would conflict with this regulation.
RPS	RPS established California's renewable electricity procurement targets:	*No Conflict*: Electricity would be sourced from LADWP, which is subject to the RPS requirements. Therefore, electricity used at the site would comply with state electricity sector GHG

Table 3.3.-3. Consideration of State and Local GHG-Reducing Plans and Policies

Plan or Policy	Plan/Policy Measure	Discussion
	33% by 2020 50% by 2030 Carbon neutrality (zero-net GHG emissions) by 2045	reduction strategies. No element of the Proposed Project would impede California's progress toward renewable energy goals.
Advanced Clean Truck/Advanced Clean Car Regulations	CARB established ZEV sales mandates to increase the penetration of ZEV trucks and automobiles into the market.	*No Conflict.* These regulations set sales mandates. Proposed Project vehicles would be subject to California's sales mandates and as such would not conflict with these regulations. No element of the Proposed Project would conflict with the standards.
Limited Idling Time for Commercial Vehicles and Off-Road Equipment	Both regulations restrict idling to 5 minutes.	*No Conflict.* Commercial vehicles (e.g., equipment and delivery trucks) would be subject to lease measures during Phase 1. Equipment idling would comply with the idling restriction via the LAHD Sustainable Construction Guidelines imposed on the contractor during Phase 2.
City of Los Angeles Green New Deal Sustainability pLAn (2019)	The pLAn set the following goals for 2050: zero carbon grid, zero carbon transportation, zero carbon buildings, zero waste, and zero wasted water. Goals and measures identified below, although not directly applicable at a project-level, are most relevant to the Proposed Project and Action Alternative.	*No Conflict.* The Proposed Project would not impede the City's achievement of pLAn goals as discussed below.
	pLAn-1. Renewable Energy:	Electricity would be sourced from LADWP, which is subject to the RPS requirements. Therefore, electricity used at the site would not conflict with the pLAn's renewable energy strategies. No element of the Proposed Project would impede the City's progress toward renewable energy goals.
	pLAn-2. Local Water: Sourcing water locally uses less energy than purchasing water.	Water would be sourced from LADWP, which is subject to the State and City requirements.
	pLAn-4. ZEVs:	The Proposed Project's vehicle use would be subject to State vehicle regulations and requirements that are designed to accelerate the transition to zero-emission and low-emission vehicles.
	Reduce port-related GHG emissions by 80% by 2050.	Tugboats and on-site equipment would be subject to CARB's harbor craft and mobile equipment requirements and as such would not conflict with pLAn measures.
City of Los Angeles Construction and Demolition (C&D) Waste Recycling Ordinance	The City of Los Angeles approved a Citywide construction and demolition waste recycling ordinance in 2010. This ordinance requires all	*No Conflict.* This would include demolition waste generated by the Proposed Project. Los Angeles Sanitation District (LASAN) is responsible for the C&D waste recycling policy. All haulers and contractors responsible for handling C&D waste must obtain a Private Waste Hauler Permit from LASAN prior to collecting, hauling and transporting C&D waste, and C&D waste

Table 3.3.-3. Consideration of State and Local GHG-Reducing Plans and Policies

Plan or Policy	Plan/Policy Measure	Discussion
	mixed C&D waste generated within City limits be taken to City-certified C&D waste processors.	can only be taken to City certified C&D processing facilities. The Proposed Project would comply with City of Los Angeles C&D Ordinance.
City of Los Angeles General Plan – Mobility Element	The City of Los Angeles General Plan Mobility Element was developed to improve the way people, goods, and resources are moved in Los Angeles.	*No Conflict.* The Proposed Project, by using designated truck routes to and from the facility, would be consistent with this General Plan Element.
San Pedro Bay Ports CAAP: 2007, 2010 Update, 2017 Update	The 2006 CAAP and 2010 Update were primarily designed to reduce criteria pollutants and air toxics. However, many of the CAAP strategies would also reduce GHG emissions. The CAAP 2017 Update furthers the goals of the previous CAAPs and includes the following targets for GHG reduction: Reduce GHGs from port-related sources to 40% below 1990 levels by 2030. Reduce GHGs from port-related sources to 80% below 1990 levels by 2050.	*No Conflict.* The Proposed Project would not impede the Port's achievement of CAAP goals. The following CAAP initiatives related to GHG emission reductions would apply to Proposed Project activities: Vessel Speed Reduction Program – Approximately 95% of vessels visiting the Berths 210/211 complied with VSRP and would continue to do so in the future. Trucks used to bring metal to the facility are subject to the Port's Clean Truck Program. The facility uses Pacific Harbor Line (PHL) switcher locomotives to bring rail cars to the facility. PHL is required by the CAAP to maintain the cleanest available locomotives and to limit idling to 15 minutes. The facility uses a hybrid electric crane for ship loading.
LAHD 2009 Sustainable Construction Guidelines	All construction at the Port must adhere to the LAHD's 2009 Sustainable Construction Guidelines. The guidelines reinforce and require sustainability measures under construction contracts, addressing a variety of emission sources that operate at the Port during construction.	*No Conflict.* The Proposed Project is required to implement LAHD's Sustainable Construction Guidelines under a construction contract.

As shown in Table 3.3-1 above, the implementation of the Proposed Project would not conflict with any of the applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions.

Mitigation Measures Applicable to the Proposed Project

No mitigation measures are needed.

Significance After Mitigation

The Proposed Project's implementation would not create any new significant impacts under Impact GHG-2.

3.3.6.3 Informational Assessment: SLR

CEQA is concerned with SLR impacts on the physical environment. Thus, this SLR discussion has been included for informational purposes and no significance determination is made regarding SLR.

Global warming is a cumulative effect resulting in part from the accumulation of GHGs in the atmosphere. SLR refers to the long-term increase in the average level of the Earth's oceans and coastal areas and is primarily driven by global warming. Warmer temperatures cause glaciers and ice sheets, such as those in Greenland and Antarctica, to melt at an accelerated rate. The resulting meltwater flows into the oceans, contributing to SLR.

The rate and extent of SLR can vary regionally due to factors such as local land subsidence, oceanic circulation patterns, and gravitational effects. Although SLR is a global phenomenon and no single project can affect its overall trend, localized SLR, whether permanent or temporary, may affect coastal erosion, increased frequency of coastal flooding, saltwater intrusion into coastal aquifers, and threats to coastal ecosystems and infrastructure.

Recent estimates of SLR are discussed in Section 3.3.2.2, Climate Change as part of Section 3.3, Environmental Setting. All estimates predict some acceleration in SLR, but the rate of acceleration and inundation scenarios vary depending on global CO_2 concentrations and analysis year. Perhaps the best study of SLR effects at the Port is the Sea Level Rise Adaptation Study conducted by the Port of Los Angeles in 2018 to assess the potential impacts of rising sea levels on the Port's infrastructure and operations (POLA 2018). The Study assessed the Port's vulnerability to SLR, examined potential impacts of several SLR scenarios on critical port infrastructure, and identified adaptation strategies to manage the risks.

The Study assessed several SLR scenarios that represent a range of scenarios for planning and adaptation purposes. These scenarios included an SLR of 12 inches by the year 2030, 24 inches by the year 2050, and 37 inches by the year 2100. Additionally, each SLR scenario was assessed under two tide conditions: daily tidal levels and the 100-year storm tide, representing permanent inundation and temporary flooding, respectively. Since the Proposed Project is proposing a 10-year lease extension followed by an up to 5-year non-operational restoration period, the 12 inches in year 2030 would be the most relevant scenario for the Proposed Project. Furthermore, since the Study did not assess scenarios between 2030 and 2050, the 24 inches in year 2050 was also evaluated in this analysis.

Figure E-4 of the study shows that the Proposed Project site would remain free of inundation and flooding if sea level rises by 12 inches in the year 2030 and by 24 inches in the year 2050.

3.3.6.2 Summary of Impact Determinations

Table 3.3-4 provides a summary of the impact determinations of the Proposed Project related to GHG emissions. This table is meant to allow easy comparison of the potential impacts of the Proposed Project.

For each type of potential impact, the table describes the impact, notes the impact determinations, describes any applicable mitigation measures, and notes the impact remaining after mitigation. All impacts, whether significant or not, are included in this table.

Table 3.3-4. Summary Matrix of Potential Impacts and Mitigation Measures for GHG Emissions Associated with the Proposed Project

Environmental Impacts	Impact Determination	Mitigation Measures	Impacts After Mitigation
Impact GHG-1: Would the Proposed Project generate GHG emissions, either directly or indirectly that would exceed the SCAQMD 10,000 mty CO_2e threshold.	No new significant impact would occur	Mitigation is not required	No new significant impact would occur
Impact GHG-2: Would the Proposed Project conflict with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions	No new significant impact would occur	Mitigation is not required	No new significant impact would occur

3.3.6.3 Mitigation Monitoring

No mitigation is required.

3.1.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the Proposed Project would not cause any new significant and unavoidable impacts.

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