4.2 Air Quality

This section identifies and evaluates issues related to air quality in the context of the proposed project. It describes the physical and regulatory setting, the criteria used to evaluate the significance of potential impacts, the methods used to evaluate these impacts, and the results of the impact analysis.

4.2.1 Environmental Setting

a. Air Quality and Public Health

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of an overall endeavor to prevent further deterioration and to facilitate improvement in air quality. The National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety, and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings (United States Environmental Protection Agency [U.S. EPA] 2022a). As the scientific methods for the study of air pollution health effects have progressed over the past decades, adverse effects have been shown to occur at lower levels of exposure. For some pollutants, no clear thresholds for effects have been demonstrated. New findings over time have, in turn, led to the revision and lowering of NAAQS which, in the judgment of the U.S. EPA, are necessary to protect public health. Ongoing assessments of the scientific evidence from health studies continue to be an important part of setting and informing revisions to federal and State air quality standards (South Coast Air Quality Management District [SCAQMD] 2017). The NAAQS and CAAQS are listed Table 4.2-1.

At the regional level, the SCAQMD is the regulatory agency responsible for improving air quality for large areas of Los Angeles, Orange County, Riverside and San Bernardino Counties, including the Coachella Valley. The city of Los Angeles is located within the South Coast Air Basin (Air Basin) which is a distinct geographic subarea within the SCAQMD's jurisdiction. The SCAQMD, together with the Southern California Association of Governments (SCAG), has the responsibility for ensuring that national and State ambient air quality standards are achieved and maintained for the Air Basin. Failure to comply with these standards puts State and local agencies at risk for penalties in the form of lawsuits, fines, a federal takeover of state implementation plans, and a loss of funds from federal agencies such as the Federal Highway Administration and Federal Transit Administration.

To meet the air quality standards, regional plans are developed, including the SCAQMD's Air Quality Management Plan (AQMP), which incorporates regional demographic projections and integrated regional land use and transportation strategies from SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). These plans work together to examine multiple pollutants, cumulative effects, and transport issues related to attaining healthful air quality in the region. In addition, a host of regulatory standards at the federal, State, regional, and local level function to identify and limit exposure of air pollutants and toxic air contaminants (TACs).

b. Local Air Quality and Sources of Air Pollution

As mentioned above, the city is located within the Air Basin, which is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and San Diego County to the south. The Air Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, in addition to the Coachella Valley area in Riverside County. The regional climate within the Air Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Air Basin is primarily influenced by meteorology and a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, and industry.

The Air Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid- to late-afternoons on hot summer days. Winter inversions frequently break by mid-morning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino counties. In the winter, the greatest pollution problem is the accumulation of carbon monoxide (CO) and nitrogen oxides (NO_X) due to low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

Air pollutant emissions within the Air Basin are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles. Air Pollutant Types.

Criteria Pollutants

The six principal pollutants for which national and State criteria and standards have been promulgated, known as “criteria pollutants,” and which are most relevant to current air quality planning and regulation in the Air Basin include ozone, respirable and fine particulate matter (PM_{10} and $PM_{2.5}$, respectively), CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, which have been adopted for them.

Ozone

Ozone is a gas that is formed when volatile organic compounds (VOCs) and NO_X – both byproducts of internal combustion engine exhaust – undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of ozone irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Respirable and fine particulate matter, PM_{10} and $PM_{2.5}$, consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, such as pollen and windstorms, are naturally occurring. However, in urban areas such as the city, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. The human body naturally prevents the entry of larger particles into the body. However, small particles can enter the body and become trapped in the nose, throat, and upper respiratory tract. These small particulates can potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates can become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Carbon Monoxide

CO is a colorless, odorless gas primarily emitted from combustion processes and motor vehicles due to incomplete combustion of carbon-containing fuels, such as gasoline or wood. In urban areas, such as the city, automobile exhaust accounts for the majority of CO emissions. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Air Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Nitrogen Dioxide

NO_2 is a nitrogen oxide (NO_X) compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of NO_X compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic areas, particularly in urban areas, such as the city, may be exposed to higher concentrations of NO_2 than

those indicated by regional monitors. NO_2 absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}. NO_X can irritate the nose and throat, and increases one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_X is as a precursor to the formation of ozone.

Sulfur Dioxide

Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is the predominant form found in the lower atmosphere and is a product of burning sulfur or burning materials that contain sulfur. Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. Emissions of SO_2 aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of SO_2, and long-term exposure to both pollutants leads to higher rates of respiratory illness.

Lead

Lead is a metal found naturally in the environment, as well as in manufactured products. The highest levels of lead in the air are usually found near lead smelters. The major sources of lead emissions in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Lead is also emitted from the sanding or removal of old lead-based paint (LBP). Lead emissions are primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

Additional State Criteria Pollutants

In addition to the national standards, the State of California regulates State-identified criteria pollutants, including sulfate (SO_4^{2-})[1], hydrogen sulfide (H_2S), visibility-reducing particles, and vinyl chloride. With respect to the State-identified criteria pollutants, most land use development projects either do not emit them (i.e., H_2S [nuisance odor] and vinyl chloride), or otherwise account for these pollutants (i.e., SO_4^{2-} and visibility reducing particles) through other criteria pollutants. For example, SO_4^{2-} are associated with SO_X emissions, and visibility-reducing particles are associated with particulate matter emissions. A description of the health effects of the State-identified criteria air pollutants is provided below.

SULFATES

SO_4^{2-} are the fully oxidized ionic form of sulfur. SO_4^{2-} occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized during the combustion process and subsequently converted to SO_4^{2-} in the atmosphere. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. SO_4^{2-} are particularly

[1] The molecular formula for "sulfate" is SO_4^{2-}, which means each oxygen atom has six valence electrons. Since sulfate has four oxygen atoms, that equals 24 valence electrons. Sulfate has a charge of "2–," which means it has an additional two electrons.

effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

HYDROGEN SULFIDE

H_2S is a colorless gas with the odor of rotten eggs. The most common sources of hydrogen sulfide emissions are oil and natural gas extraction and processing and natural emissions from geothermal fields. Industrial sources of hydrogen sulfide include petrochemical plants and kraft paper mills. Hydrogen sulfide is also formed during bacterial decomposition of human and animal waste and is present in emissions from sewage treatment facilities and landfills. Exposure to hydrogen sulfide can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 parts per million (ppm), which is considerably higher than the odor threshold. Hydrogen sulfide is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level (California Air Resources Board [CARB] 2022a).

VISIBILITY-REDUCING PARTICLES

Visibility-reducing particles come from a variety of natural and human-made sources and can vary greatly in shape, size, and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. Certain visibility-reducing particles are directly emitted to the air, such as windblown dust and soot, while others are formed in the atmosphere through chemical transformations of gaseous pollutants (e.g., SO_4^{2-}, nitrates, organic carbon particles) which are the major constituents of particulate matter. As the number of visibility-reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Exposure to some haze-causing pollutants have been linked to adverse health impacts like PM_{10} and $PM_{2.5}$, as discussed above (CARB 2022b).

VINYL CHLORIDE

Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products and is generally emitted from industrial processes. Other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. Short-term health of effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches, while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans. Most health data on vinyl chloride relate to carcinogenicity; thus, the people most at risk are those who have long-term exposure to elevated levels, which is more likely to occur in occupational or industrial settings. However, control methodologies applied to industrial facilities generally prevent emissions to the ambient air (CARB 2022c).

Volatile Organic Compounds and Toxic Air Contaminants

Although the SCAQMD's primary mandate is attaining the NAAQS and the CAAQS for criteria pollutants within the district, SCAQMD also has a general responsibility to control emissions of air contaminants and prevent endangerment to public health. As a result, the SCAQMD has regulated pollutants other than criteria pollutants, such as VOCs, TACs, greenhouse gases (GHGs), and stratospheric ozone-depleting compounds.

Volatile Organic Compounds

VOCs are organic chemical compounds of carbon and are not "criteria" pollutants themselves; however, VOCs are a prime component (along with NO_X) of the photochemical processes by which such criteria pollutants as O_3, NO_2, and certain fine particles are formed. They are, therefore, regulated as "precursors" to formation of these criteria pollutants. Some are also identified as TACs and have adverse health effects. VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids, internal combustion associated with motor vehicle usage, and consumer products (e.g., includes chemically formulated products used by household and institutional consumers, architectural coatings, etc.).

Toxic Air Contaminants

TACs is a term used to describe airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health and include both carcinogens and non-carcinogens. CARB and the California Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. CARB has listed approximately 200 toxic substances, including those identified by the U.S. EPA, which are identified on the California Air Toxics Program's TAC List. TACs are also not classified as "criteria" air pollutants. The greatest potential for TAC emissions during construction is related to diesel particulate matter (DPM) emissions associated with heavy-duty equipment. During long-term operations, sources of DPM may include heavy-duty diesel-fueled delivery trucks and stationary emergency generators. The effects of TACs can be diverse and their health impacts tend to be local rather than regional; consequently, ambient air quality standards for these pollutants have not been established, and analysis of health effects is instead based on cancer risk and exposure levels.

c. Sensitive Receptors

The NAAQS and CAAQS were established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect the portion of the public most susceptible to respiratory distress as a result of poor air quality, such as children under 14 years of age, persons over 65 years of age, persons engaged in strenuous work or exercise, and persons with pre-existing cardiovascular and/or chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, long-term health care facilities, rehabilitation centers, convalescent centers, hospitals, retirement homes, schools, playgrounds, and childcare centers (SCAQMD 2005). Single- and multi-family residences surround the project site to the north, south, and west. There are no off-site sensitive receptors to the east of the project site.

d. Odors

The SCAQMD's 2005 Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning identifies multiple sources that may cause odors, including, but not limited to, agriculture (farming and livestock), chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. None of these odor-causing lands uses occur on site or are known to be in the vicinity of the project site.

4.2.2 Regulatory Setting

a. Federal Laws and Regulations

Federal Clean Air Act

The federal Clean Air Act (CAA) was enacted in 1970 and has been amended numerous times in subsequent years, with the latest amendments occurring in 1990. The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare (U.S. EPA 2022b). The U.S. EPA is responsible for the implementation and enforcement of the CAA, which establishes the NAAQS, specifies future dates for achieving compliance, and requires the U.S. EPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to land use development projects include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions) (U.S. EPA 2022b).

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. Table 4.2-1 shows the NAAQS currently in effect for each criteria pollutant. The Air Basin fails to meet national standards for ozone and $PM_{2.5}$ and, therefore, is considered a federal "non-attainment" area for these pollutants. In addition, Los Angeles County fails to meet the national standard for lead and, therefore, is considered a federal non-attainment area for lead.

Title II pertains to mobile sources, which includes on-road vehicles (e.g., cars, buses, motorcycles) and non-road vehicles (e.g., aircraft, trains, construction equipment). Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the U.S. EPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially, and the specification requirements for cleaner burning gasoline are more stringent.

The NAAQS and the CAAQS for the California criteria air pollutants (discussed below) have been set at levels considered safe to protect public health, including the health of sensitive populations and to protect public welfare.

Table 4.2-1 Ambient Air Quality Standards and Air Basin Attainment Status

		California Ambient Air Quality Standards (CAAQS)		National Ambient Air Quality Standards (NAAQS)	
Pollutant	Averaging Period	Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O_3)	1-Hour	0.09 ppm	N	N/A	--
	8-Hour	0.070 ppm	N	0.070 ppm	N (Extreme)
Carbon Monoxide (CO)	8-Hour	9.0 ppm	A	9.0 ppm	A (Maintenance)
	1-Hour	20.0 ppm	A	35.0 ppm	A (Maintenance)
Nitrogen Dioxide (NO_2)	Annual	0.030 ppm	A	0.053 ppm	A (Maintenance)
	1-Hour	0.18 ppm	A	0.10 ppm	U/A
Sulfur Dioxide (SO_2)	Annual	N/A	--	0.03 ppm	U/A
	24-Hour	0.04 ppm	A	0.14 ppm	U/A
	1-Hour	0.25 ppm	A	0.075 ppm	U/A
Small Particulate Matter (PM_{10})	Annual	20 µg/m^3	N	N/A	--
	24-Hour	50 µg/m^3	N	150 µg/m^3	A (Maintenance)
Fine Particulate Matter ($PM_{2.5}$)	Annual	12 µg/m^3	N	12 µg/m^3	N (Moderate)
	24-Hour	N/A	--	35 µg/m^3	N (Serious)
Sulfates	24-Hour	25 µg/m^3	A	--	--
Lead (Pb)	30-Day Average	1.5 µg/m^3	A	N/A	--
	3-Month Average	N/A	--	0.15 µg/m	N
Hydrogen Sulfide	1-hour	0.03 ppm	Unclassified	N/A	N/A

A = attainment; N = nonattainment; U/A = unclassified/attainment; ppm=parts per million; µg/m^3 = micrograms per cubic meter; N/A = not applicable because no standard is established

Source: SCAQMD 2016 and CARB 2022d

Construction Equipment Fuel Efficiency Standard

The U.S. EPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements, which are contained in 40 Code of Federal Regulations (CFR) Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register [FR] 38958 [June 29, 2004], and most recently updated in 2014 [79 FR 46356]). Emissions requirements for new off-road Tier 4 vehicles were completely phased in by the end of 2015.

b State Laws and Regulations

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practicable date. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight

of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. Table 4.2-1 includes the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the State. As shown therein, the CAAQS include more stringent standards than the NAAQS. The Air Basin fails to meet State standards for ozone, PM_{10}, and $PM_{2.5}$ and, therefore, is considered "non-attainment" for these pollutants.

California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards. State Programs for Toxic Air Contaminants

State Programs for Toxic Air Contaminants

The California Air Toxics Program is an established two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or "listed," as a TAC in California. In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of Airborne Toxic Control Measures (ATCMs), both for stationary and mobile sources, including On-Road and Off-Road Vehicle Rules. These ATCMs include measures, such as limits on heavy-duty diesel motor vehicle idling and emission standards for off-road diesel construction equipment, in order to reduce public exposure to DPM and other TACs. These actions are also supplemented by the Assembly Bill (AB) 2588 Air Toxics "Hot Spots" program and Senate Bill (SB) 1731, which require facilities to report their air toxics emissions, assess health risks, notify nearby residents and workers of significant risks if present, and reduce their risk through implementation of a risk management plan. SCAQMD has further adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

Diesel Risk Reduction Program

CARB identified particulate emissions from diesel-fueled engines as TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which moved the State into the risk management phase of the program. CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and the Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. The Diesel Advisory Committee approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase. During the control measure phase, specific statewide regulations designed to further reduce DPM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each

regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce DPM emissions.

State Implementation Plan

The SIP is a collection of documents that set forth the State's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, State regulations, and federal controls. CARB is the lead agency for all purposes related to the SIP under State law. Local air quality management districts and other agencies, such as the California Department of Pesticide Regulation and the California Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards the SIP revisions to the U.S. EPA for approval and publication in the Federal Register. The items included in the California SIP are listed in 40 CFR 52.220.

As the regional air quality management district, the SCAQMD is responsible for preparing and implementing the portion of the SIP applicable to the portion of the Air Basin within its jurisdiction. The air quality management district for each region adopts rules, regulations, and programs to attain federal and State air quality standards and appropriates money (including permit fees) to achieve these standards. In addition, the following CCR sections would be applicable to the project:

- **Engine Idling.** In accordance with Section 2485 of CCR Title 13, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.
- **Emission Standards.** In accordance with Section 93115 of CCR Title 17, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

c. Regional and Local Laws and Regulations

Air Quality Management Plan and Regional Transportation Plan/Sustainable Communities Strategy

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs that serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The most significant air quality challenge in the Air Basin is to reduce NO_X emissions to meet the 2037 ozone standard deadline for the non-Coachella Valley portion of the South Coast Air Basin, as NO_X plays a critical role in the creation of ozone. The 2022 AQMP includes strategies to ensure the SCAQMD does its part to further the district's ability to meet the 2015 federal ozone standards. The district would need to reduce emissions of NO_X by 67 percent beyond what is required by the adopted rules and regulations in 2037 to meet the 2015 federal ozone standard (SCAQMD 2022a). The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other CAA measures to meet the 8-hour ozone standard. Since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the ozone standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of annual $PM_{2.5}$ standards (SCAQMD 2017)[2].

[2] Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2016 AQMP for detailed discussion).

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State, and local levels and industries. The majority of these emissions are from heavy-duty trucks, ships, and other State and federally-regulated mobile source emissions the majority of which are beyond the SCAQMD's control. The SCAQMD has limited control over truck emissions with rules such as Rule 1196. The 2022 AQMP is composed of stationary and mobile source emission reductions including traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources (e.g., aircraft, locomotives, and ocean-going vessels). These strategies are to be implemented in partnership with the CARB and U.S. EPA. The district will not meet the standard without significant federal action. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero- and low-emission technologies. Of the needed NO_x emissions reductions, 46 percent will come from federal actions, 34 percent from CARB actions, and 20 percent will come directly from SCAQMD actions (SCAQMD 2022a).

The AQMP also incorporates the transportation strategy and transportation control measures from SCAG's 2020-2045 RTP/SCS Plan (Connect SoCal) (SCAG 2020). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties, and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG coordinates with various air quality and transportation stakeholders in southern California to ensure compliance with the federal and State air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and State air quality plans to attain the NAAQS. Connect SoCal includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with measures prepared by SCAG (SCAQMD 2022a). Connect SoCal and Transportation Control Measures, included as Appendix IV-C of the 2022 AQMP, are based on SCAG's Connect SoCal.

The 2022 AQMP forecasts the 2037 emissions inventories ''with growth'' based on SCAG's Connect SoCal. The region is projected to see a 12 percent growth in population, 17 percent growth in housing units, 11 percent growth in employment, and 5 percent growth in VMT between 2018 and 2037. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State, and federal levels (SCAQMD 2022a). Project-level significance thresholds established by local air quality management districts set the level at which a project would cause or have a cumulatively considerable contribution to an exceedance of the NAAQS and/or CAAQS. Therefore, if a project's air pollutant emissions exceed the NAAQS and/or CAAQS, the project could cause or contribute to the human health impacts.

SCAQMD Air Quality Guidance Documents

The SCAQMD published the CEQA Air Quality Handbook (approved by the SCAQMD's Governing Board in 1993) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts (SCAQMD 1993). The CEQA Air Quality Handbook provides standards, methodologies, and procedures for conducting air quality analyses. However, the SCAQMD is currently in the process of replacing the CEQA Air Quality Handbook with the Air Quality Analysis Guidance Handbook. While

this process is underway, the SCAQMD has provided supplemental guidance on the SCAQMD website (SCAQMD 2022b).

The SCAQMD has also adopted land use planning guidelines in its Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, which considers impacts to sensitive receptors from facilities that emit TAC emissions (SCAQMD 2005). SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMDs guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the Final Localized Significance Threshold Methodology for CEQA evaluations that is intended to provide guidance when evaluating the localized effects from mass emissions during construction or operation of a project (SCAQMD 2008). The SCAQMD adopted additional guidance regarding $PM_{2.5}$ emissions in a document called Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds (SCAQMD 2006). The latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and Final Localized Significance Threshold Methodology.

SCAQMD Rules and Regulations

SCAQMD has adopted several rules and regulations to regulate sources of air pollution in the Air Basin and to help achieve air quality standards for land use development projects. Rules and regulations relevant to the proposed project include the following:

- **Rule 401 – Visible Emissions.** This rule states that 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 one hour, which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view. Implementation of PDF AQ-1, as detailed in Section 4.2.3, *Impact Analysis*, would reduce visible emissions during project construction.
- **Rule 402 – Nuisance.** This rule applies to the transfer of gasoline from any tank truck, trailer, or railroad tank car into any stationary storage tank or mobile fueler, and from any stationary storage tank or mobile fueler into any mobile fueler or motor vehicle fuel tank. This rule has specific requirements for facility equipment and operation, such as operating signs, daily maintenance inspection protocol, and periodic compliance inspection protocol.
- **Rule 403 – Fugitive Dust.** This rule pertains to any activity or human-made condition capable of generating fugitive dust. The rule has best available control measures that are applicable to all construction activity sources. New construction would be required to comply with all provisions of Rule 403 including, but not limited to:
    - All on-site unpaved demolition and construction areas would be watered at least twice daily during excavation and construction activities. Temporary dust covers would be used to reduce dust emissions and meet SCAQMD Rule 403. Wetting twice daily could reduce fugitive dust by as much as 50 percent.
    - The construction area would be kept sufficiently dampened to control dust caused by grading and hauling activities and to provide reasonable control of dust caused by wind.

- All clearing, earth-moving, and excavation activities would be discontinued during periods of high winds (i.e., greater than 15 miles per hour) to prevent excessive amounts of dust.
- All dirt/soil would be secured by watering and/or other appropriate means to prevent spillage and dust.
- All dirt/soil materials transported off site would be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The project general contractors would maintain and operate construction equipment in a manner to minimize exhaust emissions.
- Trucks waiting to be filled, or where filling activities would last longer than five minutes would be turned off.

- **Rule 1113 – Architectural Coatings.** This rule limits the content of VOC in architectural coatings that are supplied, sold, offered for sale, and manufactured within SCAQMD's jurisdiction. Effective January 1, 2019, all building envelope coatings were limited to a VOC content of 50 grams per liter.
- **Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities.** This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.
- **Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines.** This rule applies to stationary compression ignition engines greater than 50 brake hp and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake hp are not permitted to operate more than 50 hours per year for maintenance and testing.

City of Los Angeles General Plan

Air Quality Element

Local jurisdictions have the authority and responsibility to reduce air pollution through their land use decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. In general, the City of Los Angeles' General Plan (including the Framework, Air Quality, Mobility 2035, and Health and Wellness Elements) and the City of Los Angeles' Green New Deal (Sustainability pLAn 2019) contain policies and programs for the protection of the environment and health through improved air quality. These serve to provide additional critical guidance for the betterment of public health for the region and city.

The most directly-related of those plans, the City's General Plan Air Quality Element, was adopted on November 24, 1992, and sets forth the goals, objectives, and policies that guide the City in its implementation of its air quality improvement programs and strategies. A number of these goals, objectives, and policies are relevant to land use development and relate to traffic mobility, minimizing particulate emissions from construction activities, discouraging single-occupancy vehicle trips, managing traffic congestion during peak hours, and increasing energy efficiency in City facilities and private developments.

The Air Quality Element establishes six goals:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimal impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures, including passive measures, such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

The City is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, the City can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

Plan for a Healthy Los Angeles

The Plan for a Healthy Los Angeles, adopted by the City Council on March 31, 2015 and amended in November 2021, lays the foundation to create healthier communities for all residents in the city. As an element of the General Plan, it provides high-level policy vision, along with measurable objectives and implementation programs, to elevate health as a priority for the City's future growth and development. With a focus on public health and safety, the Plan for a Healthy Los Angeles provides a roadmap for addressing the most basic and essential quality-of-life issues: safe neighborhoods; a clean environment (i.e., improved ambient and indoor air quality); the opportunity to thrive; and access to health services, affordable housing, and healthy and sustainably produced food.

4.2.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would result in a significant impact associated with air quality if the project would:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;

3. Expose sensitive receptors to substantial pollutant concentrations; and/or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

2006 L.A. CEQA Thresholds Guide

The City's L.A. CEQA Thresholds Guide provides assistance in answering the CEQA Guidelines Appendix G Environmental Checklist questions. According to the L.A. CEQA Thresholds Guide, the air quality analysis should identify combustion emissions from construction equipment; fugitive dust emissions from grading, excavation, and hauling; worker, haul, and vendor mobile emissions during construction; operational emissions; CO hotspots; and TACs. The L.A. CEQA Thresholds Guide provides significance thresholds for operational emissions identical to the SCAQMD thresholds discussed below.

SCAQMD Thresholds

As stated in the CEQA Guidelines, the significance criteria established by the regional air quality management district or air pollution control district may be relied upon to make significance determinations. The SCAQMD has adopted guidelines for quantifying and determining the significance of air quality emissions, as discussed below.

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

The criteria for determining consistency with the SCAQMD's AQMP are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993). Projects would be consistent with the AQMP if:

- Criterion 1: The project will not result in:
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new violations; or
  - Delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- Criterion 2: The proposed project will not exceed the assumptions in the AQMP, including:
  - The population and employment growth projections used to forecast the AQMP future emissions levels;
  - Includes provisions for mitigation; or
  - Is consistent with the AQMP control measures.

REGIONAL SIGNIFICANCE THRESHOLDS

The SCAQMD recommends the quantitative regional significance thresholds for temporary construction activities and long-term project operation in the Air Basin presented in Table 4.2-2.

Table 4.2-2 SCAQMD Air Quality Significance Thresholds

Pollutant	Construction (lbs/day)	Operation (lbs/day
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550

lbs/day = pounds per day; NO_X = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_X = sulfur oxide; CO = carbon monoxide

Source: SCAQMD 2019

CARBON MONOXIDE HOTSPOTS

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. The entire Air Basin is in conformance with State and federal CO standards, and most air quality monitoring stations no longer report CO levels. The Long Beach monitoring stations report CO. The highest maximum 1-hour and 8-hour CO concentrations reported at the Long Beach monitoring stations are 4.7 ppm and 2.1 ppm in 2018 and 2019, respectively, which are below the respective thresholds of 20 ppm and 9 ppm (SCAQMD 2023). Ambient concentrations include area source as well as mobile source emissions within the area. Given the ambient concentrations, a project in the Air Basin near the South Coastal LA County 3 Station (Hudson) would need to emit concentrations over four times the ambient hourly or 8-hour emissions for that project's emissions to cause an exceedance of the applicable standards. Typical development projects, including the proposed project, would not emit the levels of CO necessary to result in a localized hot spot. Specifically, if the maximum 1-hour concentration at the monitoring station (i.e., all emission sources within the area surrounding the station) is 4.7 ppm and the threshold is 20 ppm, the project would need to result in a concentration of 15.3 ppm for emissions from the project to result in an exceedance of the NAAQS and/or CAAQS. This means the project would need to emit more than three times the amount of CO as all the other existing sources within the vicinity of the monitoring station. Therefore, the proposed project would not result in impacts associated with CO hotspots, and CO hotspots are not discussed further in this document.

LOCALIZED SIGNIFICANCE THRESHOLDS

In addition to the regional thresholds stated above, the SCAQMD developed Localized Significance Thresholds (LSTs) in response to its Governing Board's Environmental Justice Enhancement Initiative (1-4), which updates the CEQA Air Quality Handbook (SCAQMD 1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_X, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum pollutant levels a project can emit and not cause or contribute to an air quality exceedance of the most stringent applicable NAAQS or CAAQS. The LSTs take into consideration ambient concentrations in each source receptor area (SRA)[3], distance to the sensitive receptor, and project size. LSTs have been developed for emissions generated in construction areas up to 5 acres. However, LSTs only apply to emissions in a fixed

[3] The SCAQMD is broken into smaller geographic areas called "source receptor areas." Each SRA has an individualized localized significance thresholds based on average ambient air quality.

stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008).

The project site is within SRA 4 (South Los Angeles County Coastal). SCAQMD provides LST tables for project sites that measure 1, 2, or 5 acres. The project site is approximately 20 acres in total but individual construction areas range from less than one 1 to 7 acres. Therefore, the construction LST analysis conservatively uses the 1-acre site size for the 327 Harbor Site and the 5-acre site size for Phases 1, 2, and 3 on the OSP Specific Plan Site. LSTs are provided for sensitive receptors located 82 to 1,640 feet from the project disturbance boundary. The border of construction activity would occur within 82 feet for Phases 1, 2, and 3 on the OSP Specific Plan Site and within 166 feet on the 327 Harbor Site. According to the SCAQMD's Final Localized Significance Threshold Methodology, projects located closer than 82 feet to the nearest sensitive receptor should use the LSTs for receptors located at 82 feet (SCAQMD 2008). Therefore, the analysis below uses the LST values for 82 feet for Phases 1, 2, and 3 on the OSP Specific Plan Site, and 100 feet for the 327 Harbor Site. Applicable LSTs for construction and operation in SRA 4 are shown in Table 4.2-3. Where emissions exceed the screening values or where it was determined prudent for the analysis, a refined dispersion analysis was conducted to determine the project's potential to result in significant impacts. Thresholds used for the refined dispersion modeling for operational analysis are provided below in Table 4.2-3.

Table 4.2-3 SCAQMD's LSTs for SRA 4

Pollutant	Construction	Operational
1-acre site; 166 feet (50 meters) to closest sensitive receptor (lbs/day)		
Gradual conversion of NO_X to NO_2	32	32
CO	789	789
PM_{10}	13	3
$PM_{2.5}$	4	1.6
5-acre site; 82 feet (25 meters) to closest sensitive receptor (lbs/day)		
Gradual conversion of NO_X to NO_2	65	65
CO	1,530	1,530
PM_{10}	14	4
$PM_{2.5}$	5.6	1.6
Refined LST Analysis for Operational Analysis ($\mu g/m^3$)		
Gradual conversion of NO_X to NO_2		
1-hour	NA	188
Annual	NA	57
CO		
1-hour	NA	22,857
8-hour	NA	10,286
PM_{10} and $PM_{2.5}$		
24-hour	NA	2.5
Annual	NA	1

lbs/day = pounds per day; mg/m^3 = micrograms per cubic meter
Source: SCAQMD 2009

TOXIC AIR CONTAINMENTS THRESHOLDS

The SCAQMD has promulgated rules in furtherance of the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Hot Spots Act) (SCAQMD Rules and Regulations XIV – Toxics and Other Non-Criteria Pollutants, Rules 1401, and 1402), and prepared supplemental guidelines for preparing health risk assessments (HRAs) as a supplement to OEHHA's guidance manuals (SCAQMD 2020). These SCAQMD rules and supplemental guidelines provide guidance for the preparation of HRAs for stationary and certain mobile sources, such as truck movement and idling, ship hoteling at ports, and train idling. The SCAQMD has developed limited guidance and documents relevant to HRAs and CEQA analyses for non-stationary source land use projects. Specifically, these rules and guidelines do not require HRAs to be prepared as part of CEQA documents that evaluate the construction and operational impacts of residential and/or commercial projects, like the proposed project. With regard to construction impacts, the SCAQMD does not recommend preparing HRAs to determine the human health risk associated with the construction of land use projects, CEQA Air Quality Handbook (SCAQMD 1993). In addition, the SCAQMD has not provided any guidance on how to apply the 2015 OEHHA Risk Assessment Guidelines Guidance Manual to construction activities (OEHHA 2015).

Nonetheless, SCAQMD has developed significance thresholds for the emissions of TACs from stationary sources based on health risks associated with elevated exposure to such compounds. For carcinogenic compounds, cancer risk is assessed in terms of incremental excess cancer risk. A project would result in a potentially significant impact if it would generate an incremental excess cancer risk of 10 in 1 million (1×10^{-6}) or a cancer burden of 0.5 excess cancer cases in areas exceeding a risk of 1 in 1 million. Additionally, non-carcinogenic health risks are assessed in terms of a hazard index. A project would result in a potentially significant impact if it would result in a chronic and/or acute hazard index greater than 1.0 (SCAQMD 2019).

In addition, CARB's Air Quality and Land Use Handbook (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). SCAQMD adopted similar recommendations in its Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (2005). Together, CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

Methodology

Criteria pollutant emissions for project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air quality management districts to account for local requirements and conditions, and/or user-defined inputs. The input data and subsequent construction and operation emission estimates for the proposed project are summarized below and detailed in Appendix B. CalEEMod output files for the project are included in Appendix B.

Construction Emissions

Construction emissions modeled include criteria pollutant emissions generated by construction equipment used on site and by vehicle trips associated with construction such as worker and vendor trips. Construction emissions were modeled by proposed project phase based on land uses.

Construction at the 327 Harbor Site is anticipated to commence in 2023 and be completed within 24 months, and construction of the OSP Specific Plan is anticipated to occur over three Phases spanning approximately 14 to 20 years. For the purposes of a conservative analysis, it is anticipated construction activities on the OSP Specific Plan Site would commence in 2024 and end in 2037.

Two project development scenarios are proposed (see Section 2, *Project Description*) that would involve phasing the construction on the OSP Specific Plan Site in different ways. Under Scenario A, the densest development would be located in Phases 2 and 3, whereas under Scenario B, development would be densest in Phases 1 and 2. The development standards for each scenario are presented in Table 4.2-4. Under both scenarios, construction of Phase 1 is anticipated to occur between 2024 and 2030, construction of Phase 2 is anticipated to occur between 2031 and 2035, and construction of Phase 3 is anticipated occur between 2034 and 2037.

Table 4.2-4 Maximum Development Standards per Project Phase by Scenario

Location	Gross Acres	Maximum Dwelling Units	Maximum Commercial Retail Uses (sf)	Maximum Neighborhood Serving Uses (sf)
Scenario A				
327 Harbor Site	0.56	47	0	0
OSP SP Site Phase 1	7.31	375	0	32,000
OSP SP Site Phase 2	5.92	600	25,000	30,000
OSP SP Site Phase 3	7.14	578	20,000	23,000
Total Site	**20.95**	**1,600**	**45,000**	**85,000**
Scenario B				
327 Harbor Site	0.56	47	0	0
OSP SP Site Phase 1	7.31	450	0	39,000
OSP SP Site Phase 2	5.92	673	30,000	37,000
OSP SP Site Phase 3	7.14	430	15,000	9,000
Total Site	**20.95**	**1,600**	**45,000**	**85,000**

SP = Specific Plan; sf = square feet

Construction of each Phase on the OSP Specific Plan Site would include the phased demolition of existing structures, site preparation, grading and excavation, building construction, paving, and architectural coating activities. In addition, utilities realignment and upgrades would be included in each phase, as needed, to serve the proposed buildings. In total, 500,303 sf of existing buildings would be demolished. The maximum depth of excavation on the OSP Specific Plan Site would be 25 feet below ground surface (bgs) for the removal of uncertified fill and construction of the two-level underground parking structures. A total of 378,645 cubic yards (cy) of soil would be exported from the OSP Specific Plan Site. With a capacity of 16 cy per truck, soil hauling would result in approximately 23,666 one-way truck trips.

Construction on the 327 Harbor Site would include site preparation, grading, building construction, paving, and architectural coating. Excavation on the 327 Harbor Site would be a maximum of 5 feet bgs for removal of approximately 4,300 cy of uncertified artificial fill material, except for the placement of 24-inch piles, which would include ground disturbance to a maximum depth of 45 feet

bgs. With a capacity of 16 cy per truck, soil hauling from the 327 Harbor Site would result in approximately 280 one-way truck trips.

Haul trucks would export soil and materials to the Sunshine Canyon Landfill in unincorporated Los Angeles County and the Azusa Land Reclamation in the city of Azusa. Hauling would primarily be directed along 1st Street, 3rd Street, and Harbor Boulevard. A Construction Management Plan, including haul routes, worker parking, job site informational signage, delivery and material off-haul hours, traffic control plan, and schedule, would be implemented during project construction.

Construction would primarily occur Monday through Friday between the hours of 7:00 a.m. to 3:30 p.m., with occasional work on Saturdays or past 3:30 p.m. on weekdays.

Operational Emissions

In CalEEMod, operational sources of criteria pollutant emissions include area, energy, and mobile sources. Mobile source emissions consist of emissions from vehicle trips generated by the project. The trip generation rate and vehicle miles traveled (VMT) estimates from the Transportation Assessment Memorandum of Understanding (MOU) by Los Angeles Department of Transportation (LADOT) were used to estimate mobile source emissions. As referenced in the MOU, the project would generate 10,298 daily trips (LADOT 2022).

Emissions attributed to energy use include emissions from natural gas consumption for space and water heating and cooking. Area source emissions are generated by landscape maintenance equipment, use of common space fireplaces/fire pits, use of consumer products such as aerosols, and architectural coatings. It is noted that electricity emissions only apply to GHG emissions (as the energy is generated off site and therefore may not be relevant for local and regional air quality conditions) and are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour. Electricity to the project site is currently and would continue to be provided by Southern California Edison (SCE).

Construction and Operational Emissions Overlap

During construction of the project, some project phases would be operational while other phases are being constructed, which would result in an overlap of construction and operational daily emissions. To determine regional emissions during the combined construction and operational activities, the following circumstances were analyzed:

- Construction of OSP Specific Plan Site Phases 2 and 3 while the 327 Harbor Site and OSP Specific Plan Site Phase 1 are operational.
- Construction of OSP Specific Plan Site Phase 3 while the 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2 are operational.

The emissions during these overlapping phases are compared to the operational regional thresholds to determine significance.

Health Risk Assessment

The Hot Spots Act regulates stationary sources. The Hot Spots Act is designed to provide information to State and local agencies and to the general public on the extent of airborne emissions from stationary sources and the potential public health impacts of those emissions (OEHHA 2003 and 2015). OEHHA, in conjunction with CARB and the California Air Pollution Control Officers Association (CAPCOA), has adopted guidance manuals for use in implementing the Air Toxics Hot Spots Program

as part of the Hot Spots Act (California Health and Safety Code Section 44360 et. seq.). The intent of developing the guidance manuals is to provide HRA procedures for use in the Air Toxics Hot Spots Program or for the permitting of new or modified stationary sources (OEHHA 2003 and 2015). Stationary sources are typically industrial-type uses that emit TACs and are regulated by and/or require permits from the air quality management districts. Examples of stationary sources include metal finishing/manufacturing, chrome plating facilities, various product manufacturing (e.g., food, chemical, material, etc.), stationary diesel engines (e.g., emergency backup generators), and refineries (CARB 2015). The guidance manuals are not meant to be used for a health risk evaluation of typical non-stationary source land use projects such as residential and commercial development projects.

OEHHA did not opine on or include CEQA significance thresholds applicable to construction activities or the operation of non-stationary source projects in the guidance manuals. Additionally, in the Risk Management Guidance for Stationary Sources of Air Toxics (OEHHA 2015), CARB and CAPCOA recognized that the OEHHA guidance manuals do not include guidance for CEQA and that such would be handled by individual air quality management districts (CARB 2015). For these reasons, the project is not subject to regulation under the Hot Spots Act, the OEHHA 2003 Guidance Manual, or 2015 Guidance Manual (OEHHA 2003; OEHHA 2015).

The CAPCOA guidance document, entitled Health Risk Assessments for Proposed Land Use Projects (CAPCOA 2009) provides lead agencies with guidance regarding when and how an HRA should be prepared. The CAPCOA HRA guidance document does not provide guidance on how HRAs for construction projects should be addressed in CEQA, and only recommends HRAs related to two types of land use projects, land use projects with toxic emissions impacts and land use projects that would place receptors in the vicinity of existing toxics sources. The proposed project would not meet either of these criteria. The proposed project would not include industrial uses or a stationary source that emits TACs. Additionally, the proposed project would not generate more than 100 heavy-duty truck trips per day or more than 40 truck trips operating transport refrigeration units (CARB 2005, SCAQMD 2003). The proposed project also would not involve siting sensitive receptors near (within 1,000 feet) of an existing stationary source or industrial use, including freeways, rail yards, or ports. Additionally, the roadways adjacent to the project site are not high traffic roadways (roadways with more than 100,000 vehicles per day), so the project would not contemplate siting sensitive receptors near high traffic roadways. This, coupled with the SCAQMD not recommending HRAs for construction, as discussed above under “Toxic Air Contaminants Thresholds,” demonstrates why an HRA is not required to be prepared with respect to construction activities.

While an HRA is not required for the proposed project, one was prepared for informational purposes only. The greatest potential for TAC emissions would occur during project construction and would be DPM emissions associated with heavy-duty equipment used during grading and building activities. In addition, minimal amounts of toxic substances such as oils, solvents, and paints used during construction would incrementally contribute to project-related TAC emissions. These products would comply with all applicable SCAQMD rules for their manufacture and use. The project would be subject to SCAQMD rules designed to limit exposure to TACs during construction activities.

A project-specific construction HRA was performed in accordance with OEHHA’s Guidance Manual for Preparation of Health Risk Assessments (hereafter “OEHHA Guidance Manual”) (OEHHA 2015). The OEHHA Guidance Manual takes into account the sensitivity of children to TAC emissions, children’s increased breathing rates, and children’s time spent at home. Children have a higher breathing rate compared to adults and would likely spend more time at home, resulting in longer exposure

durations. On June 5, 2015, SCAQMD incorporated the guidelines into relevant rules designed for permitting of stationary sources.

The process of assessing health risks and associated impacts includes a degree of uncertainty. The level of uncertainty depends on the availability of data and the extent to which assumptions are relied upon in cases where the data are incomplete or unknown. All HRAs rely upon scientific studies to reduce the level of uncertainty; however, it is not possible to completely eliminate uncertainty from the analysis. Where assumptions are used for incomplete or unknown data, it is standard practice to be conservative (i.e., assume the worst-case scenario) when conducting HRAs to avoid underestimating or underreporting the risk to the public. In general, sources of uncertainty that may lead to an overestimation or underestimation of the risk include (1) extrapolation of the toxicity data associated with animal exposure used to estimate exposure effects in humans and (2) uncertainty in the exposure estimates. In addition to uncertainty, there is variability in measured parameters with the greatest impact existing among the human population in respect to properties such as susceptibility to toxins, height, weight, food consumption, and breathing rates. To provide a conservative HRA, the most sensitive populations such as children and the elderly were used to model potential impacts (i.e., based on high-end breathing rates) by incorporating age-sensitivity factors (ASFs) and assuming no exposure reduction measures such as mechanical air filtration building systems.

Dispersion Modeling

Dispersion modeling was performed using the U.S. EPA-approved AERMOD with meteorological data from the representative SCAQMD monitoring station at the Long Beach Airport. On-site emission source locations correspond to the areas of construction activity per project phase. Volume line sources were used to represent the construction emissions sources. Construction emissions would not be generated during the nighttime hours (8:00 p.m. to 7:00 a.m.); therefore, the dispersion modeling allocates the emissions during daytime construction hours.

Sensitive receptors identified for modeling were placed at the location of nearby sensitive land uses, which includes all residential uses within 1,000 feet of the project site. This analysis focuses on residential impacts as residential exposure parameters, inclusive of ASFs and childhood breathing rates, result in the maximum exposure (conservative, worst-case) scenario. Other off-site receptors not specifically modeled would result in risk that would be less than that modeled due to increased dispersion of pollutants at distances greater than a 1,000-foot radius. In addition to off-site receptors, existing and future on-site receptors were also included in the dispersion modeling.

Cancer Risk

Health risk impacts are assessed using calculations and methodology consistent with the 2015 OEHHA Guidance Manual. Health impacts address construction DPM emissions and the effects on nearby sensitive uses (residential).

Health impacts are evaluated using a dose-response assessment, which describes the relationship between the level of exposure to a substance (i.e., the dose) and the incidence or occurrence of injury (i.e., the response). To determine the total dose to off-site sensitive receptors, the applicable exposure pathways (e.g., inhalation) for the emitted substances and the receptor locations must be identified. The applicable exposure pathways determine the exposure algorithms that are used to estimate dose. After the exposure pathways are identified, the applicable fate and transport algorithms are used to estimate concentrations in the applicable exposure media (e.g., air) and the exposure algorithms are used to determine the substance-specific dose. In accordance with the

OEHHA Guidance Manual, the inhalation pathway was evaluated for the proposed project's construction-related DPM. For the inhalation pathway, the dose is directly proportional to the breathing rate. As a conservative (i.e., health protective) approach, maximum breathing rates were used in this analysis.

Once the dose is determined, cancer risk is calculated by accounting for cancer potency of the specific pollutant, age sensitivity, exposure duration, averaging time for lifetime cancer risk, and time spent at home. The cancer potency factor (CPF) is specific for each pollutant and is determined through peer-reviewed scientific studies. For example, the Scientific Review Panel recommends a CPF for DPM of 3.0×10^{-4} micrograms per cubic meter ($\mu g/m^3$) and a slope factor of 1.1 ppm per day[4]. The ASFs account for greater susceptibility in early life as compared to adult exposure, starting from the third trimester of pregnancy to 16 years. The fraction of time at home (FAH) accounts for the time actually residing at the sensitive receptor location. FAH also accounts for time spent at home for various age groups. For example, newborns are expected to reside at home for longer periods of time compared to school-age children, and the elderly (retirees) are expected to spend more time at home compared to people of working age. Due to the schools located within the 1 in 1 million risk zone, an FAH of 1 was used consistent with OEHHA guidelines.

Each age group has different exposure parameters which require cancer risk to be calculated separately for each age group. The estimation of cancer risk uses the following algorithms:

Risk = Dose inhalation × Inhalation CPF × ASF (Equation 1)

Dose inhalation = CAIR × DBR × A × EF × ED × FAH / AT (Equation 2)

Where:

Inhalation CPF = inhalation cancer potency factor

ASF = age-sensitivity factor

CAIR = concentration of compound in air in $\mu g/m^3$

DBR = breathing rate in liters per kilogram of body weight per day (L/kg-body weight/day)

A = inhalation absorption factor (1 for DPM)

EF = exposure frequency in days per year (day/year)

ED = exposure duration in years (year)

FAH = fraction of time at home (percentage)

AT = averaging time period of exposure (day)

The OEHHA recommended values for these equations, as well as the daily breathing rates (DBR). Specific modeling details are included in Appendix B.

The incremental increase in cancer risk is the result of multiplying the dose by the pollutant-specific CPF. The potential inhalation excess cancer risk is calculated by multiplying the inhalation dose by the inhalation CPF.

The following nine sensitive receptor groups were modeled to determine potential cancer risk to residences in the vicinity of the project site:

- Off-site residences;
- Existing on-site Phase 1 residences;

[4] CPF and slope factors are built into the HARP2 model used for quantifying risk.

- Existing on-site Phase 2 residences;
- Existing on-site Phase 3 residences;
- Future on-site 327 Harbor Site residences;
- Future on-site OSP Specific Plan Site Phase 1 residences;
- Future on-site OSP Specific Plan Site Phase 2 residences;
- Combined existing and future risk for Phase 1; and
- Combined existing and future risk for Phase 2[5].

Potential impacts to future on-site receptors were quantified and included for informational purposes only, as CEQA does not require the analysis of potential impacts from a proposed project on itself. Only the risk from the receptor with the greatest risk for each sensitive receptor groups is discussed herein. The risk for all receptors, as well as modeling output, is included in Appendix B.

Non-Cancer Risk

Non-cancer chronic impacts were assessed based on the hazard index (HI). The evaluation of chronic impacts is based on the maximum annual emissions over a 12-month period of construction activity. The chronic HI is calculated by dividing the maximum modeled annual average concentration at the maximum impacted sensitive receptor by the concentration at or below which no adverse health effects are anticipated (recommended exposure limit [REL]). OEHHA recommends an ambient concentration of 5 μg/m^3 as the chronic inhalation REL for DPM exhaust. Therefore, no chronic impact would occur for a sensitive receptor exposed to an annual average DPM concentration of 5 μg/m^3 or less.

Localized Significance Thresholds

Where the LST look-up tables are not applicable for project analysis, AERMOD (dispersion modeling) is also used to determine maximum concentrations of criteria pollutants such as NO_2, CO, PM_{10}, and $PM_{2.5}$. When conducting air dispersion modeling for demonstrating compliance with the NAAQS and/or CAAQS, background (ambient) concentrations are required to be included in the analysis for all attainment pollutants. Ambient data was obtained via the SCAQMD's Historical Data by Year (SCAQMD 2023). Generally, the closest upwind monitoring station should be selected, with preference to the monitoring station with the most similar characteristics to the area for the source under consideration. Ambient data was taken from the SRA 4, South Coastal Los Angeles County monitoring station. The Air Basin is in nonattainment for PM_{10} CAAQS and $PM_{2.5}$ NAAQS and CAAQS, therefore significance thresholds are not determined using background concentrations. Instead, modeled maximum 24-hour and annual concentrations should be compared directly to the significant change thresholds of 2.5 and 1.0 μg/m^3, respectively, for operational emissions.

[5] Because there is the potential for residents from Phase 1 or Phase 2 to temporarily move from the site during reconstruction and then move back after reconstruction, there is the potential for these residents to be exposed to Risk from surrounding construction activities both prior to and subsequent to the reconstruction of that Phase. Therefore, as a conservative estimate of maximum potential risk to existing receptors, it is assumed that for both Phase 1 and Phase 2 the resident from the maximum exposed location prior to reconstruction of that Phase moves away and then moves back to the location of the maximum exposed location to risk from reconstruction activities in the remaining Phases. For example, residents from Phase 1 would be exposed to construction activities from the Harbor site prior to Phase 1 being reconstructed and then to construction activities from Phase 2 and Phase 3 after the reconstruction.

b. Project Design Features

No specific design features related to air quality are proposed by the project.

c. Project Impacts and Mitigation Measures

Threshold 1:	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT WOULD GENERATE AIR POLLUTANT EMISSIONS EXCEEDING SCAQMD THRESHOLDS. THEREFORE, THE PROPOSED PROJECT WOULD POTENTIALLY CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE 2022 SCAQMD AQMP AND IMPACTS WOULD BE POTENTIALLY SIGNIFICANT WITHOUT MITIGATION. WITH THE INCLUSION OF MITIGATION MEASURES AQ-1 AND AQ-2, CONSTRUCTION AND OPERATIONAL CRITERIA POLLUTANT EMISSIONS WOULD BE REDUCED TO LESS THAN SIGNIFICANT LEVELS, AND THE PROPOSED PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN.

The SCAQMD's CEQA Air Quality Handbook states that to assess if the project would conflict with or obstruct implementation of the applicable air quality plan, the project's compliance with the criteria from Chapter 12 of the CEQA Air Quality Handbook (see "SCAQMD Thresholds" above).

Criterion 1

As previously mentioned, Criterion 1 states:

The project will not result in:

- An increase in the frequency or severity of existing air quality violations;
- Cause or contribute to new violations; or
- Delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The AQMP provides strategies and measures to reach attainment with the thresholds for 8-hour and 1-hour ozone and $PM_{2.5}$. As shown in Table 4.2-6 through Table 4.2-7 under Impact AQ-2, the proposed project would generate criteria pollutant emissions that would exceed SCAQMD regional thresholds for criteria pollutants and ozone precursors (VOC and NO_X). Therefore, the project would increase the frequency or severity of an existing air quality violation, and delay the timely attainment of the air quality standards in the AQMP.

Criterion 2

As previously mentioned, Criterion 2 states:

The proposed project will not exceed the assumptions in the AQMP, including:

- The population and employment growth projections used to forecast the AQMP future emissions levels;
- Includes provisions for mitigation; or
- Is consistent with the AQMP control measures.

As described in Section 2, *Project Description*, the proposed project would involve the phased demolition of existing structures on the OSP Specific Plan Site and the construction of up to 1,553

residential units, 45,000 sf of commercial and retail uses, and 85,000 sf of Neighborhood Serving Uses. The 327 Harbor Site would be developed with 47 residential units to serve as replacement housing for current Rancho San Pedro residents during construction on the OSP Specific Plan Site. The proposed project includes two development scenarios (see Section 2, *Project Description*) that would involve phasing construction on the OSP Specific Plan Site in different ways. Under Scenario A, the densest development would be located in Phases 2 and 3, whereas under Scenario B, development would be densest in Phases 1 and 2. Under both scenarios, overall buildout of the project site would include development of up to 1,600 residential units, 45,000 sf of commercial and retail uses, and 85,000 sf of Neighborhood Serving Uses. Therefore, this analysis applies to both Scenario A and Scenario B.

The SCAQMD's current (2022) AQMP is based on the population projections from SCAG's 2020-2045 RTP/SCS. The proposed project would be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used to develop the AQMP.

As detailed in Section 4.10, *Population and Housing*, the proposed project would provide housing for an estimated 3,872 residents[6]. The project would include replacement housing for the existing 478 housing units on the project site; therefore, the proposed project would result in an estimated net increase of 2,715 residents on the project site[7]. SCAG forecasts the population of the city of Los Angeles will reach 4,771,300 by 2045, an increase of 837,500 residents from the city's estimated 2016 population (SCAG 2020). The proposed project's contribution to population growth would account for approximately 0.3 percent of the net population growth projected for the city of Los Angeles by 2045 and would be within SCAG's 2045 population forecast.

The proposed project would also include up to 45,000 sf of commercial uses, such as pharmacies, restaurants, grocery stores, and retail, as well as up to 85,000 sf of community amenities such as a workforce development center, childcare center, Boys and Girls Club, Social Hall, and Senior Center. As detailed in Section 4.10, *Population and Housing*, it is assumed that a 15,000-sf grocery store would be developed, as well as 12,000 sf of restaurant space and 103,000 sf of general retail/Neighborhood Serving Uses on the OSP Specific Plan Site. Based on these uses and the City of Los Angeles VMT Calculator Documentation, the proposed project would be anticipated to generate 314 jobs on the OSP Specific Plan Site (LADOT 2020)[8].

SCAG forecasts the employment of the city of Los Angeles will reach 2,135,900 by 2045, an increase of 287,600 employees from the city's estimated 2016 population (SCAG 2020). The proposed project's contribution to employment growth would account for approximately 0.1 percent of the employment growth projected for the city of Los Angeles by 2045 and would be within SCAG's 2045 employment forecasts. Therefore, population and employment growth generated by the proposed project would be within SCAG forecasts for the city and the project would not induce substantial unplanned population growth.

As stated below under Impacts AQ-2 through AQ-4, the proposed project would not exceed regulatory thresholds, and therefore, would not require implementation of mitigation measures. Additionally, the primary measures incorporated into the AQMP are intended to reduce emissions from stationary and mobile sources. The proposed project does not implement stationary sources. The majority of the SCAQMD implemented mobile source measures focus on facility fleets and off-road vehicles. As a mixed-use project, the project would not require a facility fleet and off-road vehicles used during

[6] 1,600 households x 2.42 persons per household = 3,872 persons, with the 2.42 persons per household based on the household demographics for the San Pedro Community Plan as detailed in Section 4.10, *Population and Housing*.
[7] 3,872 persons – 1,157 persons (478 households x 2.42 persons per household) = 2,715 persons
[8] 15,000 sf (4 employees per 1,000 sf) + 12,000 sf (4 employees per 1,000 sf) + 103,000 sf (2 employees per 1,000 sf) = 314 employees

construction would not be controlled by the project applicant; however, the construction contractors would be required to abide by SCAQMD regulatory requirements for construction equipment.

The AQMP forecasts also rely on the regional transportation strategies and control measures identified in SCAG's RTP/SCS. The SCAG's RTP/SCS includes a commitment to reduce emissions from transportation sources by promoting compact and infill development to comply with SB 375. As detailed in Table 4.5-7 in Section 4.5, *Greenhouse Gas Emissions*, the proposed residential project would not conflict with the SCAG's RTP/SCS goals. Therefore, the proposed project would be consistent with the control measures set forth in the AQMP.

City of Los Angeles General Plan Air Quality Element Consistency

The City of Los Angeles' General Plan, adopted in 1992, lists several air quality policies as part of its Air Quality Element that supplement those of the SCAQMD and guide the City in its implementation of local air quality improvement programs and strategies. As detailed in Table 4.2-5, the proposed project would be consistent with the goals and policies adopted by the City's General Plan for the reduction of air quality impacts.

Table 4.2-5 Consistency with Applicable General Plan Air Quality Element Goals

Strategy/Action	Project Consistency
Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure. ▪ Policy 1.2.2: Pursue the City's air quality objectives in cooperation with regional and other local jurisdictions. ▪ Policy 1.3.1: Minimize particulate emissions from construction sites. ▪ Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots which are associated with vehicular traffic.	**Consistent.** As stated above under Criteria 1 and 2, the project would not exceed regulatory thresholds and would be consistent with the SCAQMD's AQMP, including being consistent with the SCAG's RTP/SCS growth and transportation goals. During construction, the project would be required to follow all SCAQMD fugitive dust reduction measures, such as Rule 403, which would minimize particulate emissions from construction sites. The proposed project would not have temporary or permanent unpaved roads or parking lots. Therefore, the project would support the goal of achieving good air quality and mobility while promoting a healthy economic structure.
Goal 2: Less reliance on single-occupancy vehicle from fewer commute and non-work trips. ▪ Policy 2.2.1: Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies. ▪ Policy 2.2.2: Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Consistent.** The project is a mixed-use infill development and would involve the construction of 1,600 multi-family residential units (including the proposed development of the 327 Harbor Site), open area, associated road and parking, and up to 130,000 sf of commercial and neighborhood serving retail uses. The proposed project would be within walking/bicycling distance of existing residential, commercial, and recreational uses. In addition, the project site is serviced by the Los Angeles Bus System, including nine bus stops adjacent to or within the project site. The project site would be serviced by the LADOT Dash line, as well as Metro Bus Route 205. The project would incorporate at least 321 EV charging parking spaces, consistent with PDF GHG-2. These features would incentivize the use of public transit, active transportation, and fuel-efficient vehicles for traveling to and from the site. Therefore, the proposed project would promote alternative means of travel to minimize single-occupancy vehicle trips.
Goal 3: Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques. ▪ Policy 3.3.1: Implement best available system management technique and transportation management and mobility action plans to	**Not Applicable.** This goal is not applicable at a project-level and is intended for City-level action. However, the implementation of the proposed mixed-use infill project would not conflict with the City's ability to achieve this goal.

Strategy/Action	Project Consistency
improve the efficiency of existing transportation facilities, subject to availability of funding.	
Goal 4: Minimal impacts of existing land use pattern and future land use development on air quality by addressing the relationship between land use, transportation, and air quality. ▪ Policy 4.2.3: Ensure that new development is compatible with pedestrian, bicycles, transit, and alternative fuel vehicles. ▪ Policy 4.2.4: Require that air quality impacts be a consideration in the review and approval of all discretionary projects. ▪ Policy 4.2.5: Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects. ▪ Policy 4.3.1: Revise the City's General Plan/Community Plans to ensure that new or relocated sensitive receptors are located to minimize significant health risks posed by air pollution sources.	**Consistent.** The project is a mixed-use infill development and would involve the construction of 1,600 multi-family residential units (including the proposed development of the 327 Harbor Site), open area, associated road and parking, and up to 130,000 sf of commercial and neighborhood serving retail uses. The proposed project would be within walking/bicycling distance of existing residential, commercial, and recreational uses. In addition, the project is serviced by the Los Angeles Bus System, including nine bus stops adjacent to or within the project site. The project site would be serviced by the LADOT Dash line, as well as Metro Bus Route 205. The project would add new bicycle lanes, long- and short-term bicycle parking, a bicycle hub with lockers and showers, and traffic calming features. In addition, the project would incorporate at least 321 EV charging parking spaces. These features would incentivize the use of public transit, active transportation, and fuel-efficient vehicles for traveling to and from the site. All new residences would be equipped with minimum efficiency reporting value (MERV) 13 filtration systems.[1] The increased density of the development means that more residents can be accommodated in the dwelling units that are designed to further improve indoor air quality for the residents. Additionally, the project is not located adjacent to areas of high-industrial or high-traffic roadways; therefore, additionally minimizing impacts from potential pollutant sources. Accordingly, the proposed project would minimize impacts of the infill development by promoting alternative means of transportation, thereby reducing air quality and health impacts.
Goal 5: Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels, and the implementation of conservation measures, including passive measures, such as site orientation and tree planting. ▪ Policy 5.1.2: Effect a reduction in energy consumption and shift to non-polluting sources of energy in its building and operations. ▪ Policy 5.1.4: Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling. ▪ Policy 5.3.1: Support the development and use of equipment powered by electric or low-emitting fuels.	**Consistent**. The project would incorporate all applicable measures of the most current CALGreen Building Standards, which are comparable (and more stringent in certain categories) than LEED standards. The project would include a solar PV-ready roof system, high efficiency insulation, tankless water heaters, energy efficient LED lighting fixtures, high-efficiency temperature control systems, and water-efficient appliances and fixtures. Residential portions of the development would be electric only, limiting natural gas use to non-residential land uses. The project would incorporate at a minimum 230 parking spaces served by EV chargers. Additionally, the project would be compliant with Title 24 requirements for photovoltaic solar incorporation into the project design. Therefore, the project would promote energy efficiency and the use of renewable energy.

[1] MERV rating reports the ability of a filter to capture particulates between 0.3 and 10 microns, including diesel particulate matter. MERV filters are rated from 1 to 16, with a MERV 13-rated filter having the ability to reduce particles of 0.3 to 1 micron by 50 percent, 1 to 3 microns by 85 percent, and 3 to 10 microns by 90 percent (U.S. EPA 2022c).

Source: City of Los Angeles 1992.

Conclusion

As shown in the analysis above, the project would be consistent with the City's General Plan Air Quality Element but would not be consistent with the goals, objectives, and policies set forth in the SCAQMD's AQMP as the construction and operational air pollutant emissions would exceed the applicable thresholds. Therefore, the project would potentially conflict with or obstruct implementation of the applicable air quality plan, and impacts would be potentially significant.

Mitigation Measures

Mitigation Measures AQ-1 and AQ-2, provided below, would be required to minimize the potentially significant impacts related to criteria pollutant emissions.

AQ-1 Construction Equipment

The project applicant shall ensure the following requirements are incorporated into applicable bid documents, purchase orders, and contracts. Contractors shall confirm the ability to supply the compliant construction equipment prior to any ground-disturbing and construction activities:

- Mobile off-road construction equipment (wheeled or tracked) greater than 50 hp used during construction of the project shall meet the U.S. EPA Tier 4 final standards. In the event of specialized equipment use where Tier 4 equipment is not commercially available at the time of construction, the equipment shall, at a minimum, meet the Tier 3 standards. Zero-emissions construction equipment may be incorporated in lieu of Tier 4 final equipment. A copy of each equipment's certified tier specification or model year specification shall be available upon request at the time of mobilization of each piece of equipment.
- Mobile off-road construction equipment less than 50 hp used during construction of the project shall be electric or other alternative fuel type. A copy of each unit's certified tier specification or model year specification shall be available upon request at the time of mobilization of each applicable unit of equipment.
- Electric hook-ups to the power grid shall be used instead of temporary diesel- or gasoline-powered generators, whenever feasible. If generators need to be used, the generators shall be non-diesel generators.

AQ-2 Landscaping Equipment Electrification

The project shall include a minimum of 25 percent electric landscaping equipment use in all contracts for landscaping services to be rendered on site. This requirement shall be added to the Master Development Agreement between HACLA and the project Applicant.

Significance After Mitigation

The project's construction, operational, and combined construction and operational emissions with implementation of Mitigation Measures AQ-1 and AQ-2 are presented in Table 4.2-9, Table 4.2-10, and Table 4.2-11 under Impact AQ-2. Implementation of Mitigation Measure AQ-1 would reduce construction-related NO_X and VOC emissions to below significance thresholds (see Table 4.2-9). With implementation of Mitigation Measure AQ-2, VOC emissions from operational activities would be reduced to below significance thresholds (see Table 4.2-10). Additionally, implementation of these two mitigation measures would reduce combined construction and operational emissions to below the applicable significance thresholds. Therefore, the proposed project's construction and

operational impacts would be less than significant with incorporation of mitigation, and the proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

Threshold 2:	Would the project 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?

Impact AQ-2 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT WOULD POTENTIALLY RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF A CRITERIA POLLUTANT FOR WHICH THE SCAQMD REGION IS IN NONATTAINMENT UNDER THE NAAQS OR CAAQS, WHICH WOULD BE CONSIDERED A SIGNIFICANT IMPACT TO AIR QUALITY. POTENTIAL IMPACTS RELATED TO CUMULATIVE AIR QUALITY WOULD BE MITIGATED TO LESS THAN SIGNIFICANT LEVELS WITH IMPLEMENTATION OF MITIGATION MEASURES AQ-1 AND AQ-2. THEREFORE, AIR QUALITY IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

As described in Section 2, *Project Description*, the proposed project would involve the phased demolition of existing structures on the OSP Specific Plan Site and the construction of up to 1,553 residential units, 45,000 sf of commercial and retail uses, and 85,000 sf of Neighborhood Serving Uses. The 327 Harbor Site would be developed with 47 residential units to serve as replacement housing for current Rancho San Pedro residents during construction on the OSP Specific Plan Site. The proposed project includes two development scenarios (see Section 2, *Project Description*) that would involve phasing construction on the OSP Specific Plan Site in different ways. Under Scenario A, the densest development would be located in Phases 2 and 3, whereas under Scenario B, development would be densest in Phases 1 and 2.

Construction

Under both scenarios, the footprint of development would be identical, and construction and grading activities would be the same for all construction phases except architectural coating. The equipment and timing of each phase would remain the same regardless of scenario; however, as the number of units constructed for each Phase would change between Scenario A and Scenario B, the amount of VOC emissions from architectural coating activities would vary between the two. All other construction emissions would be identical.

Table 4.2-6 summarizes the estimated maximum daily emissions of pollutants associated with construction of the proposed project as compared to the SCAQMD's regional thresholds. Scenarios A and B show the maximum daily emissions from each Phase. The "Overlap by year" rows in Table 4.2-6 show the maximum daily emissions during years where development among Phases occurs concurrently. Specifically, during 2024 and 2025, it is anticipated construction activities would occur on both the 327 Harbor Site and Phase 1 in the OSP Specific Plan Site, and during 2034 and 2035, construction activities would occur in both Phases 2 and 3. It is not anticipated that construction of Phase 1 would overlap with construction of Phase 2. As shown in Table 4.2-6, VOC, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD regional thresholds for either scenario. However, NO_x emissions associated with construction of the project would be 121 pounds per day (lbs/day) under both Scenario A and Scenario B, which would exceed the regional threshold of 100 lbs/day. Because air pollutant emissions generated by project construction would exceed the SCAQMD's regional significance thresholds, project construction would potentially result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in non-attainment, and impacts would be potentially significant.

Table 4.2-6 Construction Emissions – Regional Threshold Comparison (lbs/day)

Phase/Overlap[1]	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)						
327 Harbor Site	4	34	40	<1	3	2
OSP Specific Plan Site Phase 1	13	114	150	<1	10	5
OSP Specific Plan Site Phase 2	17	77	151	<1	8	3
OSP Specific Plan Site Phase 3	19	82	149	<1	9	3
Overlap by Year[2]						
2024	15	121	159	<1	11	6
2025	13	108	151	<1	10	5
2034	28	111	207	<1	17	6
2035	21	50	133	<1	15	5
Scenario B (lbs/day)						
327 Harbor Site	4	34	40	<1	3	2
OSP Specific Plan Site Phase 1	13	114	150	<1	10	5
OSP Specific Plan Site Phase 2	18	77	151	<1	8	3
OSP Specific Plan Site Phase 3	15	82	149	<1	9	3
Overlap by Year[2]						
2024	15	121	159	<1	11	6
2025	13	108	151	<1	10	5
2034	30	111	207	<1	17	6
2035	21	50	133	<1	15	5
Maximum (lbs/day)						
Scenario A	28	121	207	<1	17	6
Scenario B	30	121	207	<1	17	6
Regional Construction Thresholds	75	100	550	150	150	55
Exceed Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_x = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

[1] The 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

[2] "Overlap by year" rows show the maximum daily emissions where development of Phases overlap. Specifically, during years 2024 and 2025 it is anticipated that construction activities will occur on both the 327 Harbor Site as well as within Phase 1 and in years 2034 and 2035 construction activities will occur in both Phases 2 and 3.

Source: See Appendix B

Operation

Under both scenarios, the footprint of development would be identical, resulting in the same amount of total growth. However, as the number of residential units and area of commercial and neighborhood serving retail development would change between Phases under Scenario A and Scenario B, the operational emissions by Phase would vary between the two scenarios. Table 4.2-7 summarizes the estimated maximum daily operational emissions of pollutants associated with the proposed project. As shown below, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD regional operational thresholds for either scenario. However, VOC emissions would exceed the regional threshold of 55 by 0.46 for Scenario A and 0.38 for Scenario B. Because VOC emissions generated by project operational activities would exceed the SCAQMD's regional operational significance thresholds, project operation has the potential to result in a cumulatively considerable

net increase of a criteria pollutant for which the project region is in non-attainment, and impacts would be potentially significant.

Table 4.2-7 Operational Emissions – Regional Threshold Comparison

Plan Area[1]	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)						
327 Harbor Site	2	1	9	<1	1	<1
OSP Specific Plan Site Phase 1	18	7	95	<1	17	5
OSP Specific Plan Site Phase 2	28	10	147	<1	28	8
OSP Specific Plan Site Phase 3	26	9	134	<1	25	7
Total Emissions	**74**	**27**	**385**	**1**	**72**	**20**
Existing Emissions	*18*	*9*	*109*	*<1*	*15*	*4*
Net Emissions	**55**	**17**	**277**	**<1**	**57**	**16**
Scenario B (lbs/day)						
327 Harbor Site	2	1	9	<1	1	<1
OSP Specific Plan Site Phase 1	21	8	114	<1	21	6
OSP Specific Plan Site Phase 2	32	12	169	<1	33	9
OSP Specific Plan Site Phase 3	18	6	94	<1	17	5
Total Emissions	**74**	**27**	**386**	**1**	**72**	**20**
Existing Emissions	*18*	*9*	*109*	*<1*	*15*	*4*
Net Emissions	**55**	**17**	**277**	**<1**	**57**	**16**
Maximum (lbs/day)						
Scenario A	55	17	277	<1	57	16
Scenario B	55	17	277	<1	57	16
Regional Operational Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	**Yes**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_X = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

Note: Totals may be rounded based on the values presented in the CalEEMod outputs.

[1] Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

Source: See Appendix B

Combined Construction and Operation

Under both scenarios, development of the project would result in the construction of later phases while initial phases are operational. The development footprint would be identical under both Scenarios A and B, resulting in the same amount of total growth. However, as the number of residential units and square footage of commercial and Neighborhood Serving retail development would differ between Phases under Scenario A and Scenario B, the operational emissions by Phase would vary between the two scenarios. Table 4.2-8 summarizes the estimated maximum daily emissions where construction and operational activities overlap. As shown below, VOC, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD regional operational significance thresholds for either scenario. Nonetheless, NO_X emissions would exceed the regional significance threshold of 55 lbs/day for both scenarios. Because NO_x emissions generated by project activities would exceed the SCAQMD's regional operational significance thresholds, project operation has the potential to

result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in nonattainment, and impacts would be potentially significant.

Table 4.2-8 Construction and Operational Overlap Emissions – Regional Threshold Comparison

Plan Area[1]	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)						
Construction of OSP Specific Plan Site Phases 2 and 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1						
Construction of OSP Specific Plan Site Phases 2 and 3	28	111	207	<1	17	6
Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1	20	8	104	<1	19	5
Total	**48**	**118**	**311**	**<1**	**35**	**11**
Construction of OSP Specific Plan Site Phase 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2						
Construction of OSP Specific Plan Site Phase 3	19	82	149	<1	9	3
Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2	48	18	251	<1	47	13
Total	**67**	**99**	**400**	**<1**	**56**	**16**
Scenario B (lbs/day)						
Construction of OSP Specific Plan Site Phases 2 and 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1						
Construction of OSP Specific Plan Site Phases 2 and 3	30	111	207	<1	17	6
Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1	24	9	123	0	22	6
Total	**54**	**119**	**330**	**0**	**39**	**12**
Construction of OSP Specific Plan Site Phase 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2						
Construction of OSP Specific Plan Site Phase 3	15	77	151	<1	8	3
Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2	55	21	292	<1	55	15
Total	**71**	**98**	**443**	**<1**	**64**	**19**
Maximum (lbs/day)						
Max Scenario A	67	118	400	<1	56	16
Max Scenario B	71	119	443	<1	64	19
Existing	*(18)*	*(9)*	*(109)*	*(<1)*	*(15)*	*(4)*
Net Scenario A	**49**	**109**	**292**	**<1**	**41**	**12**
Net Scenario B	**52**	**110**	**334**	**<1**	**49**	**14**
Regional Operational Thresholds	55	55	550	150	150	55
Exceed Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_X = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

Note: Totals may be rounded based on the totals presented in the CalEEMod outputs.

[1] Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

Source: See Appendix B

Mitigation Measures

Mitigation Measures AQ-1 and AQ-2 listed under Impact AQ-1, above, would be required to minimize the potentially significant impacts related to the cumulatively considerable net increase of a criteria pollutant for which the SCAQMD region is in nonattainment under the NAAQS or CAAQS.

Significance After Mitigation

Construction

As shown in Table 4.2-9, with implementation of Mitigation Measure AQ-1, construction NO_X emissions would be reduced to below significance thresholds. Therefore, project construction would not result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in nonattainment, and impacts would be less than significant with mitigation.

Table 4.2-9 Mitigated Construction Emissions – Regional Threshold Comparison (lbs/day)

Phase/Overlap[1]	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)						
327 Harbor Site	2	8	36	<1	2	<1
OSP Specific Plan Site Phase 1	7	27	132	<1	8	2
OSP Specific Plan Site Phase 2	13	26	134	<1	7	2
OSP Specific Plan Site Phase 3	16	30	132	<1	8	2
Overlap by Year[2]						
2024	5	29	140	<1	5	2
2025	4	28	134	<1	5	1
2034	16	40	190	<1	15	4
2035	16	27	137	<1	14	4
Scenario B (lbs/day)						
327 Harbor Site	2	8	36	<1	2	<1
OSP Specific Plan Site Phase 1	8	27	132	<1	8	2
OSP Specific Plan Site Phase 2	15	26	134	<1	7	2
OSP Specific Plan Site Phase 3	12	30	132	<1	8	2
Overlap by Year[2]						
2024	5	29	140	<1	5	2
2025	4	28	134	<1	5	1
2034	18	40	190	<1	15	4
2035	16	27	137	<1	14	4
Maximum (lbs/day)						
Scenario A	16	40	190	<1	15	4
Scenario B	18	40	190	<1	15	4
Regional Construction Thresholds	75	100	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_x = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

[1] The 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

[2] "Overlap by year" rows show the maximum daily emissions where development of Phases overlap. Specifically, during years 2024 and 2025 it is anticipated that construction activities will occur on both the 327 Harbor Site as well as within Phase 1 and in years 2034 and 2035 construction activities will occur in both Phases 2 and 3.

Source: See Appendix B

Operation

Table 4.2-10 shows the mitigated operational emissions with the incorporation of Mitigation Measure AQ-2. As illustrated therein, with implementation of Mitigation Measure AQ-2, VOC emissions would be reduced to below significance thresholds and operational impacts from the project would be less than significant.

Table 4.2-10 Mitigated Operational Emissions – Regional Threshold Comparison

Plan Area[1]	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)						
327 Harbor Site	2	1	8	<1	1	<1
OSP Specific Plan Site Phase 1	18	7	87	<1	17	5
OSP Specific Plan Site Phase 2	27	10	135	<1	28	8
OSP Specific Plan Site Phase 3	26	9	122	<1	25	7
Total Emissions	**73**	**26**	**352**	**1**	**72**	**20**
Existing Emissions	*18*	*9*	*109*	*<1*	*15*	*4*
Net Emissions	**54**	**17**	**244**	**<1**	**57**	**16**
Scenario B (lbs/day)						
327 Harbor Site	2	1	8	<1	1	<1
OSP Specific Plan Site Phase 1	21	8	104	<1	21	6
OSP Specific Plan Site Phase 2	31	11	155	<1	33	9
OSP Specific Plan Site Phase 3	18	6	85	<1	17	5
Total Emissions	**73**	**26**	**353**	**1**	**72**	**20**
Existing Emissions	*18*	*9*	*109*	*<1*	*15*	*4*
Net Emissions	**54**	**17**	**244**	**<1**	**57**	**16**
Maximum (lbs/day)						
Scenario A	54	17	244	<1	57	16
Scenario B	54	17	244	<1	57	16
Regional Operational Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_X = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

Note: Totals may be rounded based on the values presented in the CalEEMod outputs.

1. Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

Source: See Appendix B

Construction and Operation

Table 4.2-11 shows the combined mitigated construction and operational emissions with incorporation of Mitigation Measures AQ-1 and AQ-2. As shown in the table, with implementation of Mitigation Measures AQ-1 and AQ-2, NO_X emissions would be reduced to below significance thresholds. Therefore, impacts from implementation of the project would be less than significant with mitigation.

Table 4.2-11 Mitigated Construction and Operational Overlap Emissions – Regional Threshold Comparison

Plan Area[1]	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)						
Construction of OSP Specific Plan Site Phases 2 and 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1						
Construction of OSP Specific Plan Site Phases 2 and 3	16	40	190	<1	15	4
Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1	20	7	94	<1	18	5
Total	**36**	**48**	**284**	**<1**	**33**	**9**
Construction of OSP Specific Plan Site Phase 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2						
Construction of OSP Specific Plan Site Phase 3	16	30	132	<1	8	2
Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2	47	17	226	<1	47	13
Total	**63**	**47**	**358**	**<1**	**55**	**15**
Scenario B (lbs/day)						
Construction of OSP Specific Plan Site Phases 2 and 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1						
Construction of OSP Specific Plan Site Phases 2 and 3	18	40	190	<1	15	4
Operation of 327 Harbor Sire and OSP Specific Plan Site Phase 1	23	9	111	<1	22	6
Total	**41**	**49**	**301**	**<1**	**37**	**10**
Construction of OSP Specific Plan Site Phase 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2						
Construction of OSP Specific Plan Site Phase 3	12	26	134	<1	7	2
Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2	55	20	263	<1	55	15
Total	**67**	**47**	**397**	**<1**	**63**	**17**
Maximum (lbs/day)						
Max Scenario A	63	48	358	<1	55	15
Max Scenario B	67	49	397	<1	63	17
Existing	*(18)*	*(9)*	*(109)*	*(<1)*	*(15)*	*(4)*
Net Scenario A	**45**	**38**	**249**	**<1**	**40**	**11**
Net Scenario B	**48**	**39**	**288**	**<1**	**48**	**13**
Regional Operational Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_X = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

Note: Totals may be rounded based on the values presented in the CalEEMod outputs.

[1] Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

Source: See Appendix B

Threshold 3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3 CONSTRUCTION OF THE PROPOSED PROJECT WOULD POTENTIALLY RESULT IN AIR POLLUTANT EMISSIONS THAT EXCEED SCAQMD LOCALIZED SIGNIFICANT THRESHOLDS AND TAC EMISSIONS THAT WOULD RESULT IN POTENTIALLY SIGNIFICANT CARCINOGENIC OR ACUTE IMPACTS TO SENSITIVE RECEPTORS. POTENTIAL IMPACTS WOULD BE MITIGATED TO LESS THAN SIGNIFICANT LEVELS WITH IMPLEMENTATION OF MITIGATION MEASURES AQ-1 AND AQ-2. ADDITIONALLY, OPERATION OF THE PROPOSED PROJECT WOULD NOT RESULT IN SIGNIFICANT TAC EMISSIONS OR SITE NEW SENSITIVE RECEPTORS NEAR EXISTING SOURCES OF TACS. THEREFORE, IMPACTS RELATED TO THE EXPOSURE OF SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

As described in Section 2, *Project Description*, the proposed project would involve the phased demolition of existing structures on the OSP Specific Plan Site and the construction of up to 1,553 residential units, 45,000 sf of commercial and retail uses, and 85,000 sf of Neighborhood Serving Uses. The 327 Harbor Site would be developed with 47 residential units to serve as replacement housing for current Rancho San Pedro residents during construction on the OSP Specific Plan Site. The proposed project includes two development scenarios (see Section 2, *Project Description*) that would involve phasing construction on the OSP Specific Plan Site in different ways. Under Scenario A, the densest development would be located in Phases 2 and 3, whereas under Scenario B, development would be densest in Phases 1 and 2.

Localized Construction Emissions

As discussed under Impact AQ-2, under both scenarios, the total square footage of the project development footprint would be identical, the construction equipment and timing of each Phase, and construction and grading activities would be the same for all construction phases except architectural coating. Although the amount of VOC emissions from architectural coating activities would vary between the two scenarios, the localized emissions analysis does not address VOC emissions. Therefore, this analysis applies to both Scenario A and Scenario B.

Table 4.2-12 summarizes the estimated on-site maximum daily emissions of pollutants associated with construction of the proposed project. The proposed development within some Phases would occur concurrently, resulting in phase overlapping or "overlaps." Specifically, during the years 2024 and 2025, it is anticipated construction activities would occur on both the 327 Harbor Site and Phase 1 in the OSP Specific Plan Site, and during the years 2034 and 2035, construction activities would occur in both Phases 2 and 3 in the OSP Specific Plan Site. It is not anticipated that construction Phase 1 would overlap with construction of Phase 2 in the OSP Specific Plan Site. Table 4.2-12 shows only the maximum emissions generated by these anticipated phase overlaps, which would occur during 2034 when construction activities would occur in both Phases 2 and 3 on the OSP Specific Plan Site.

As shown in Table 4.2-12, CO, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD LSTs; however, NO_X emissions would exceed its LST threshold. LST thresholds are determined based on the site location, size, and distance to nearby receptors, as detailed in Section 4.2.3a, *Significance Thresholds and Methodology*. Because air pollutant emissions generated by project construction would exceed a SCAQMD LST, project construction would potentially expose sensitive receptors to substantial pollutant concentrations, and impacts would be potentially significant.

Table 4.2-12 Localized Project Construction Emissions (lbs/day)

Phase/Overlap[1]	NO_X	CO	PM_{10}	$PM_{2.5}$
327 Harbor Site	30	38	2	1
Threshold	32	789	13	4
Exceed Threshold?[2]	**No**	**No**	**No**	**No**
OSP Specific Plan Site Phase 1	98	141	7	4
Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**Yes**	**No**	**No**	**No**
OSP Specific Plan Site Phase 2	66	144	4	2
Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**Yes**	**No**	**No**	**No**
OSP Specific Plan Site Phase 3	64	140	4	2
Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**No**	**No**	**No**	**No**
Max Overlap[4]	105	184	7	5
Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**Yes**	**No**	**No**	**No**

lbs/day = pounds per day; NO_x = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

[1] Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

[2] Thresholds are based on allowed emissions from Source Receptor Area-4 for a 1-acre site at 100 feet.

[3] Thresholds are based on allowed emissions from Source Receptor Area-4 for a 5-acre site at 82 feet.

[4] "Max Overlap" represents the maximum emissions from the anticipated overlap of construction phasing. Specifically, the maximum overlap emissions are anticipated to occur in 2034 where construction activities would occur in both Phase 2 and Phase 3 in the OSP Specific Plan Site.

Source: See Appendix B

Localized Operational Emissions

Under both scenarios, the total number of residential units and square footage of commercial, retail, and Neighborhood Serving uses would be identical, resulting in the same amount of overall growth. However, as the number of units and square footage of commercial and neighborhood serving retail development would differ between Phases under Scenario A and Scenario B, the operational emissions from each Phase would vary between the two scenarios. Table 4.2-13 summarizes the project's localized operational emissions by emission source (area and energy) for each Phase and scenario as compared to the SCAQMD Localized Significance Thresholds.

Due to the size of the total site, as detailed in Section 4.2.3.a, *Significance Thresholds and Methodology*, comparison to the NAAQS and CAAQS is more appropriate for the analysis of air pollutant emissions as the LSTs are based on sites of up to 5 acres and the project site is greater than 5 acres. Thus, dispersion modeling was conducted for NO_X, CO, PM_{10}, and $PM_{2.5}$ for total operational emissions in addition to comparing the localized on-site emissions to the LST look-up tables. As shown in Table 4.2-13, the emissions generated by operation of the proposed project would not exceed SCAQMD LSTs for criteria pollutants. Therefore, operation of the project would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

Table 4.2-13 Localized Project Operational Emissions

Phase[1]	NO_X	CO	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)				
327 Harbor Site	<1	4	<1	<1
OSP Specific Plan Site Phase 1	<1	31	<1	<1
OSP Specific Plan Site Phase 2	1	49	<1	<1
OSP Specific Plan Site Phase 3	1	48	1	<1
Total Emissions	**1**	**132**	**1**	**<1**
Existing Emissions	*1*	*40*	*<1*	*<1*
Net Emissions	**<1**	**92**	**<1**	**<1**
Scenario B (lbs/day)				
327 Harbor Site	<1	4	<1	<1
OSP Specific Plan Site Phase 1	1	37	<1	<1
OSP Specific Plan Site Phase 2	1	55	<1	<1
OSP Specific Plan Site Phase 3	<1	35	<1	<1
Total Emissions	**1**	**132**	**<1**	**<1**
Existing Emissions	*1*	*40*	*<1*	*<1*
Net Emissions	**<1**	**92**	**<1**	**<1**
Maximum (lbs/day)				
327 Harbor Site	1	4	1	<1
Threshold (1-acre)	32	789	3	2
Exceed Threshold?	**No**	**No**	**No**	**No**
Scenario A	1	49	1	<1
Scenario B	1	55	<1	<1
Threshold (5-acre)	65	1,530	4	2
Exceed Threshold?	**No**	**No**	**No**	**No**
Maximum Daily Concentration (Refined Analysis) ($\mu g/m^3$)				
Maximum Daily (lbs/day)	1	132	<1	<1
Maximum Daily Impact (1-hour Highest)	82	4,615	-	-
Threshold	188	22,857	-	-
Maximum Daily Impact (1-hour Highest)	-	2,726	-	-
Threshold	-	10,286	-	-
Maximum Daily Impact (24 hour)	-	-	0.58	0.58
Threshold	-	-	2.5	2.5
Maximum Daily Impact (Annual)	17	-	0.29	0.29
Threshold	57	-	1	1
Exceed Threshold?	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_X = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

[1] Note that in the CalEEMod output, the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

Source: See Appendix B

Construction and Operation Localized Emissions

Under both scenarios, the total number of residential units and square footage of commercial, retail, and Neighborhood Serving uses would be identical, resulting in the same amount of overall growth. However, as the number of units and square footage of commercial and Neighborhood Serving retail development would differ between Phases under Scenario A and Scenario B, the operational emissions from each Phase would vary between the two scenarios. Table 4.2-14 summarizes the estimated maximum daily localized emissions for the two scenarios, where construction and operational activities overlap during the later portion of project construction. As shown below, CO, PM_{10}, and $PM_{2.5}$ emissions would not exceed SCAQMD localized operational significance thresholds for either scenario. However, NO_X emissions would exceed the regional significance threshold for both scenarios. Because NO_X emissions generated by project activities would exceed the SCAQMD's LST, the proposed project has the potential to not expose sensitive receptors to substantial pollutant concentrations , and impacts would be potentially significant.

Table 4.2-14 Construction and Operational Overlap Emissions – Localized Threshold Comparison

Phase[1]	NO_X	CO	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)				
Construction of OSP Specific Plan Site Phases 2 and 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1				
Construction of OSP Specific Plan Site Phases 2 and 3	88	184	5	2
Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1	<1	35	<1	<1
Total	**88**	**219**	**5**	**2**
Construction of OSP Specific Plan Site Phase 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2				
Construction of OSP Specific Plan Site Phase 3	32	789	13	4
Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2	<1	84	<1	<1
Total	**32**	**873**	**13**	**4**
Scenario B (lbs/day)				
Construction of OSP Specific Plan Site Phases 2 and 3 Plus Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1				
Construction of OSP Specific Plan Site Phases 2 and 3	88	184	5	2
Operation of 327 Harbor Site and OSP Specific Plan Site Phase 1	<1	41	<1	<1
Total	**88**	**225**	**5**	**2**
Construction of OSP Specific Plan Site Phase 3 Plus Operation of 327 Harbor sire and OSP Specific Plan Site Phases 1 and 2				
Construction of OSP Specific Plan Site Phase 3	32	789	13	4
Operation of 327 Harbor Site and OSP Specific Plan Site Phases 1 and 2	1	97	<1	<1
Total	**33**	**886**	**13**	**4**

Phase[1]	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum (lbs/day)				
Max Scenario A	88	873	13	4
Max Scenario B	88	886	13	4
Existing	*(9)*	*(109)*	*(15)*	*(4)*
Net Scenario A	**79**	**765**	**(2)**	**<1**
Net Scenario B	**79**	**777**	**(2)**	**<1**
Localized Significance Thresholds	**65**	**1,530**	**4**	**2**
Exceed Threshold?	**Yes**	**No**	**No**	**No**

lbs/day = pounds per day; NO_X = nitrogen oxides; VOC = volatile organic compounds; PM10 = particulate matter with a diameter of 10 microns or less; PM2.5 = particulate matter with a diameter of 2.5 microns or less; SO2 = sulfur dioxide; CO = carbon monoxide

Note: Totals may be rounded based on the values presented in the CalEEMod outputs.

1. Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

Source: See Appendix B

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a potential hazard to human health. TACs are further described in Section 4.2.1, *Environmental Setting*, above. The following subsections discuss the proposed project's potential to result in impacts related to TAC emissions during construction and operation. Health risks are associated with the exposure of sensitive receptors to carcinogenic and non-carcinogenic compounds. Carcinogenic risks can be defined in terms of the excess probability of developing cancer from exposure to a chemical at a given concentration based on a given population. Non-Carcinogenic risk is the potential of experiencing an adverse effect from exposure to TACs at a given concentration.

Construction

As previously stated, while an HRA is not required for the proposed project, one was prepared for informational purposes. Table 4.2-15 shows the maximum total risk from construction of the proposed project for each of the receptor groups. Additionally, the risk for existing and future on-site residential receptors are provided for informational purposes and do not factor into the significance findings. Risk for future on-site receptors takes into account the use of MERV 13 filtration systems as the project would be required to include them due to 2022 Title 24 requirements for ventilation systems[9]. MERV 13 standard air filtration will reduce PM_{10} and $PM_{2.5}$ emissions by at least 70 percent. Off-site worker receptors were conservatively modeled as residential receptors to indicate potential maximum risk for existing workers residing within 1,000 feet of the project site, as total risk for these individuals would be a combination of risk from exposure during the day and exposure at home. As residential risk assumes the receptor is at that location 24 hours per day, workers that live and work near the construction project would not be exposed to risk levels higher than the maximum risk reported for residential or worker risk. Figure 4.2-1 shows the location of the receptor for maximum impact for each receptor type.

[9] MERV rating reports the ability of a filter to capture particulates between 0.3 and 10 microns, including diesel particulate matter. MERV filters are rated from 1 to 16, with a MERV 13-rated filter having the ability to reduce particles of 0.3 to 1 micron by 50 percent, 1 to 3 microns by 85 percent, and 3 to 10 microns by 90 percent (U.S. EPA 2022c).

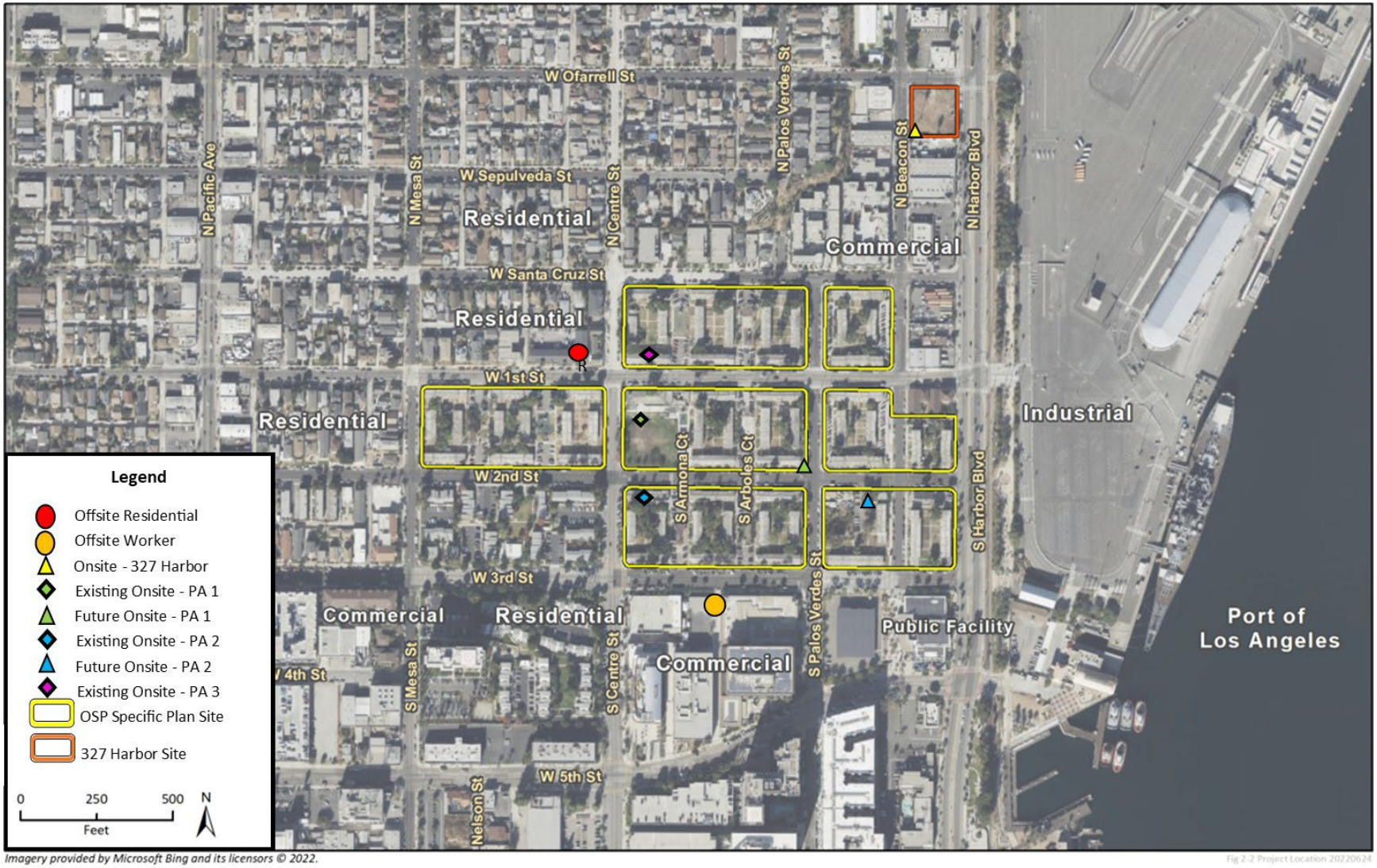
Table 4.2-15 Construction Health Risk

Receptor	Receptor #[1]	Cancer Risk (per million)	Chronic Risk
Off-site Risk			
Off-site Residential	145	115.6	0.4
Off-site Worker	394	36.1	0.266
On-site Risk (provided for information purposes)			
327 Harbor Site	485	1.86	0.039
Existing OSP Specific Plan Site PA 1	753	3.3	0.107
Existing OSP Specific Plan Site PA 2	1181	88.8	0.358
Existing OSP Specific Plan Site PA 3	1369	112.2	0.439
Future OSP Specific Plan Site PA 1	531	10.66	0.225
Future OSP Specific Plan Site PA 2	1205	3.07	0.133
Combined Existing and Future Risk PA 1		13.96	0.332
Combined Existing and Future Risk PA 2		91.87	0.358

[1] "Receptor #" indicates the number of the receptor location from the modeling program.

Source: See Appendix B

Figure 4.2-1 Maximum Cancer Risk Locations



Operational

Under both scenarios, the nature of the development and the location of the parcels to be developed would be identical. Therefore, the following analysis applies to both Scenario A and Scenario B.

Industrial manufacturing processes, warehousing, ports, rail yards, refineries, chrome platers, gasoline dispensing facilities, automotive repair facilities, and dry-cleaning facilities are the typical land uses that result in exposure of sensitive receptors to TACs. The proposed project would include a mixed-use development of residential, commercial, and neighborhood serving retail uses that would not include any of these potential sources, although minimal emissions may result from the use of consumer products. The proposed project would generate minor amounts of diesel fuel emissions from infrequent delivery trucks (less than 100 trucks accessing the site per day) and intermittent maintenance activities. Proposed project operations would result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings (from maintenance of units) and other products. An emergency back-up generator would not be included as part of the proposed project development. Given the land use type and activities anticipated, proposed project operations are not considered a substantial source of TACs or health risk. Therefore, operational activities would not expose sensitive receptors to substantial TAC concentrations and impacts would be less than significant.

CARB further suggests an operational HRA be conducted for developments resulting in sensitive receptors being placed within 500 feet of an existing high-volume roadway. A high-volume roadway is defined as an urban roadway with more than 100,000 vehicles per day. The closest high-volume roadway to the project site is State Route 47, which is more than 1,000 feet north of the 327 Harbor Site (the northernmost project parcel). Therefore, the proposed project would not place new sensitive receptors within 500 feet of a high-volume roadway. In addition, the Title 24 standards would require new residential units to include MERV 13 standard air filtration (at a minimum) to reduce PM_{10} and $PM_{2.5}$ emissions by at least 70 percent. Therefore, new residents are not anticipated to be adversely affected by exposure to long-term vehicle exhaust.

Mitigation Measures

Mitigation Measures AQ-1 and AQ-2 listed under Impact AQ-1, above, would be required to minimize the potentially significant impacts related to exposure of sensitive receptors to substantially pollutant concentrations.

Significance After Mitigation

Construction

As shown in Table 4.2-16, with implementation of Mitigation Measure AQ-1, NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions during construction would not exceed SCAQMD LSTs. Because air pollutant emissions generated during project construction would not exceed the SCAQMD's LSTs, project construction would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant with mitigation.

Table 4.2-16 Mitigated Localized Project Construction Emissions (lbs/day)

Phase/Overlap[1]	NOx	CO	PM_{10}	$PM_{2.5}$
327 Harbor Site	7	33	1	<1
Localized Significance Threshold	32	789	13	4
Exceed Threshold?[2]	**No**	**No**	**No**	**No**
OSP Specific Plan Site Phase 1	12	123	6	2
Localized Significance Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**No**	**No**	**No**	**No**
OSP Specific Plan Site Phase 2	17	127	1	1
Localized Significance Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**No**	**No**	**No**	**No**
OSP Specific Plan Site Phase 3	14	123	2	<1
Localized Significance Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**No**	**No**	**No**	**No**
Max Overlap[4]	20	167	2	1
Localized Significance Threshold	65	1,530	14	5.6
Exceed Threshold?[3]	**No**	**No**	**No**	**No**

lbs/day = pounds per day; NO_x = nitrogen oxides; VOC = volatile organic compounds; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; SO_2 = sulfur dioxide; CO = carbon monoxide

[1] Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

[2] Thresholds are based on allowed emissions from Source Receptor Area-4 for a 1-acre site at 100 feet.

[3] Thresholds are based on allowed emissions from Source Receptor Area-4 for a 5-acre site at 82 feet.

[4] "Max Overlap" represents the maximum emissions from the anticipated overlap of construction phasing. Specifically, the maximum overlap emissions are anticipated to occur in 2034 where construction activities would occur in both Phase 2 and Phase 3 in the OSP Specific Plan Site.

Source: See Appendix B

Combined Construction and Operational Emissions

Table 4.2-17 shows the combined construction and operational emissions with the incorporation of Mitigation Measures AQ-1 and Mitigation Measure AQ-2. As shown in the table, with implementation of Mitigation Measures AQ-1 and AQ-2, NO_X emissions would be reduced to below regulatory thresholds. Impacts from the implementation of the project would be less than significant with mitigation.

Table 4.2-17 Mitigated Construction and Operational Overlap Emissions – localized Threshold Comparison

Phase[1]	NO_X	CO	PM_{10}	$PM_{2.5}$
Scenario A (lbs/day)				
Construction of Phase 2 and Phase 3; Operation Harbor and Phase 1				
Construction Phase 2 and 3	20	167	2	1
Operation Harbor and Phase 1	<1	35	<1	<1
Total	**20**	**202**	**2**	**1**
Construction of Phase 3; Operation Harbor, Phase 1, and Phase 2				
Construction of Phase 3	32	789	13	4
Operation Harbor, Phase 1, and Phase 2	<1	84	<1	<1
Total	**32**	**873**	**13**	**4**
Scenario B (lbs/ day)				
Construction of Phases 2 and 3; Operation Harbor and Phase 1				
Construction of Phases 2 and 3	20	167	2	1
Operation Harbor and Phase 1	<1	41	<1	<1
Total	**20**	**208**	**2**	**1**
Construction of Phase 3; Operation Harbor, Phases 1 and 2				
Construction of Phase 3	32	789	13	4
Operation Harbor, Phases 1 and 2	1	97	<1	<1
Total	**33**	**886**	**13**	**4**
Maximum (lbs/day)				
Max Scenario A	32	873	13	4
Max Scenario B	33	886	13	4
Existing	*(9)*	*(109)*	*(15)*	*(4)*
Net Scenario A	23	765	(2)	<1
Net Scenario B	24	777	(2)	<1
Localized Significance Thresholds	**65**	**1,530**	**4**	**2**
Exceed Threshold?	**No**	**No**	**No**	**No**

NO_X = nitrogen oxides; CO = carbon monoxide; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less; PM_{10} = particulate matter with a diameter of 10 microns or less

Note: Totals may be rounded based on the values presented in the CalEEMod outputs.

1. Note that the 327 Harbor Site is referred to as "327 Harbor" in the CalEEMod outputs.

Source: See Appendix B

Toxic Air Contaminants

As shown in Table 4.2-18, implementation of Mitigation Measure AQ-1 would further reduce health risks from construction activities to off-site residential receptors.

Table 4.2-18 Reduced Construction Health Risk

Receptor	Receptor #[1]	Cancer Risk (ppm)	Chronic Risk
Off-site Risk			
Off-site Residential	145	9.1	0.039
Off-site Worker	345	4.0	0.037
On-site Risk (provided for information purposes)			
327 Harbor Site	485	0.23	0.007
Existing OSP Specific Plan Site PA 1	753	0.2	0.011
Existing OSP Specific Plan Site PA 2	1,181	6.3	0.030
Existing OSP Specific Plan Site PA 3	1,369	8.4	0.047
Future OSP Specific Plan Site PA 1	531	2.67	0.058
Future OSP Specific Plan Site PA 2	1,205	0.56	0.023
Combined Existing and Future Risk PA 1		2.87	0.069
Combined Existing and Future Risk PA 2		6.86	0.030

[1] "Receptor #" indicates the number of the receptor location from the modeling program.

Source: See Appendix B

Threshold 4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-4 IMPLEMENTATION OF THE PROPOSED PROJECT WOULD NOT CREATE OBJECTIONABLE ODORS OR RESULT IN OTHER EMISSIONS THAT WOULD AFFECT A SUBSTANTIAL NUMBER OF PEOPLE. IMPACTS RELATED TO OTHER EMISSIONS WOULD BE LESS THAN SIGNIFICANT.

As described in Section 2, *Project Description*, the proposed project would involve the phased demolition of existing structures on the OSP Specific Plan Site and the construction of up to 1,553 residential units, 45,000 sf of commercial and retail uses, and 85,000 sf of Neighborhood Serving Uses. The 327 Harbor Site would be developed with 47 residential units to serve as replacement housing for current Rancho San Pedro residents during construction on the OSP Specific Plan Site. The proposed project includes two development scenarios (see Section 2, *Project Description*) that would involve phasing construction on the OSP Specific Plan Site in different ways. Under Scenario A, the densest development would be located in Phases 2 and 3, whereas under Scenario B, development would be densest in Phases 1 and 2. Under both scenarios, the footprint of proposed development would be identical, and the overall buildout of the project site would involve the same types and amounts of land uses. Additionally, construction equipment use, construction activities, and the overall construction timeline would be the same for each scenario. Therefore, this analysis applies to both Scenario A and Scenario B.

Construction

Emissions leading to odors during project construction would occur from the use of on-site construction equipment, as well as off-gassing from paving and architectural coating activities. For construction activities, odors would be short-term in nature, generally limited to the project site, and are subject to SCAQMD Rule 402, Nuisance, which provides protocol to limit the generation of odors due to fossil fuel use. Construction activities would be temporary and transitory and associated odors would cease upon construction completion. Accordingly, construction of the proposed project would

not generate other emissions (such as those leading to odors) adversely affecting a substantial number of people, and impacts would be less than significant.

Operation

Common sources of operational odor complaints include sewage treatment plants, landfills, recycling facilities, and agricultural uses. The proposed project would not include these uses and would entail operation of residential, commercial, and Neighborhood Serving Uses. These residential and commercial uses do not typically emit substantial odors. Solid waste generated by proposed on-site uses would be stored in accordance with the requirements set forth by the City of Los Angeles and collected by a contracted waste hauler, ensuring that the collection and storage of on-site waste would be managed in a manner to prevent the proliferation of odors. Operational odor impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant; therefore, mitigation measures are not required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.2.4 Cumulative Impacts

The geographic scope for the cumulative air quality impact analysis is the Air Basin. Because the Air Basin is designated a nonattainment area for the federal and State one-hour and eight-hour ozone standards, State PM_{10} standards, federal 24-hour $PM_{2.5}$ standard, and federal and State annual $PM_{2.5}$ standard, there is an existing adverse effect in the Air Basin relative to these pollutants and additional, unplanned growth in the area has the potential to exacerbate the pollution and hinder the achievement of the NAAQS and CAAQS within the Air Basin. As identified in Table 3-1, *Cumulative Project List,* in Section 3.4, *Cumulative Development*, there are 12 currently planned and pending projects within a 0.5-mile radius of the project site.

This cumulative impact analysis is based on the SCAQMD's recommendations included in their CEQA Handbook. Individual projects under the SCAQMD's jurisdiction would cause a cumulatively considerable increase in emissions for which the Air Basin is in non-attainment if the individual project exceeds the SCAQMD's recommended thresholds.

a. Construction

As discussed under Impacts AQ-1 through AQ-3, construction emissions from the proposed project would be below regional and localized significance thresholds with the implementation of Mitigation Measures AQ-1 and AQ-2. The project would comply with all regulatory requirements, including, but not limited to, SCAQMD Rules 402, 403, and 1113.

Diesel particulate emissions would be the greatest TAC from construction activities. As detailed in Impact AQ-3, above, a construction HRA was conducted to determine the potential for risk to nearby sensitive receptors were provided for informational purposes only. As discussed in the thresholds and methodology section a construction health risk is not required. Therefore, impacts from the project's construction activities would be less than cumulatively considerable.

b. Operation

SCAQMD is the designated air quality control agency in the Air Basin, which is designated nonattainment for the 8-hour federal ozone standard and $PM_{2.5}$ standards. The Los Angeles County portion of the Air Basin is also designated non-attainment for lead at the federal level (U.S. EPA 2022b). The Air Basin is also designated nonattainment for State ozone, $PM_{2.5}$, and PM_{10} standards (CARB 2022b). The Air Basin is designated unclassifiable or in attainment for all other federal and state standards (CARB 2022b, U.S. EPA 2022b).

Operation of the cumulative projects as identified in Section 3, *Environmental Setting,* would add additional air pollution to the region further degrading the local and regional air quality. The greatest cumulative impact would be from the increased traffic volumes from growth within the city. However, as stated above, individual projects would not be cumulatively considerable if they would not exceed SCAQMD regulatory thresholds with or without mitigation. As shown in Impacts AQ-2 and AQ-3, above, the operation of the proposed project would not exceed regional or localized thresholds for any criteria pollutant with implementation of Mitigation Measure AQ-2.

Additionally, the proposed project, as a mixed-use development, would not introduce permitted or non-permitted sources of TACs. Likewise, the project would not site new residences within the established buffer distances for the existing regional or local TAC sources. Therefore, impacts from the project's operational activities would not be cumulatively considerable relative to air quality.

c. Conclusion

Given proposed project construction and operational activities would not exceed regional, local or TAC thresholds, the contribution of the proposed project to cumulative air quality impact from construction and operational activities would not be cumulatively considerable.

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