PLACENTIA AVENUE INDUSTRIAL AIR QUALITY, GLOBAL CLIMATE CHANGE, HRA, AND ENERGY IMPACT ANALYSIS

City of Perris

April 25, 2024

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

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EXECUTIVE SUMMARY

The purpose of this air quality, global climate change, health risk assessment and energy impact analysis is to provide an assessment of the impacts resulting from development of the proposed Placentia Avenue Industrial project and to identify measures that may be necessary to reduce potentially significant impacts.

Construction-Source Emissions

Project construction-source emissions would not exceed applicable regional thresholds of significance established by the South Coast Air Quality Management District (SCAQMD). For localized emissions, the project will not exceed applicable Localized Significance Thresholds (LSTs) established by the SCAQMD.

Project construction-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Given the temporary and short-term construction schedule, the project would not result in a long-term (i.e., lifetime or 30-year) exposure to Toxic Air Contaminants (TACs) as a result of project construction. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, impacts from TACs during construction would be less than significant.

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less than significant.

Operational-Source Emissions

Project operational-sourced emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. Project operational-source emissions would not result in or cause a significant localized air quality or TAC impacts as discussed in the Operations-Related Local Air Quality Impacts section of this report. Additionally, project-related trips will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO "hotspots). The Diesel Emissions Health Risk Assessment conducted for this project showed that DPM emissions from project-related truck trips will not cause a significantly elevated cancer risk or significant non-cancer-related health risk to nearby receptors. Project operational-source emissions would therefore not adversely affect sensitive receptors within the vicinity of the project.

Project operational-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). The project's emissions meet SCAQMD regional thresholds and will not result in a significant cumulative impact. The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential operational-source odor impacts are therefore considered less than significant.

Greenhouse Gases

Project-related GHG emissions would not exceed the SCAQMD screening threshold of 10,000 $MTCO_2e$ per year for industrial uses.

Furthermore, the project's GHG emissions would not exceed the SCAQMD screening threshold (based on EO S-3-05). The project would not conflict with the goals of AB-32, SB-32, or the City of Perris CAP; therefore, the project would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and impacts are considered to be less than significant.

Energy

For new development, such as that proposed by the Placentia Avenue Industrial project, compliance with California Building Standards Code Title 24 energy efficiency requirements (CALGreen), are considered demonstrable evidence of efficient use of energy. As discussed below, the project would provide for, and promote, energy efficiencies required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the project's operation is calculated to be comparable to, or less than, energy consumed by other industrial uses of similar scale and intensity that are constructed and operating in California. On this basis, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Impacts are considered to be less than significant.

1. INTRODUCTION

This section describes the purpose of this air quality, global climate change, health risk assessment, and energy impact analysis, project location, proposed development, and study area. Figure 1 shows the project location map and Figure 2 illustrates the project site plan.

PURPOSE AND OBJECTIVES

This study was performed to address the possibility of regional/local air quality impacts and global climate change impacts, from project related air emissions. The objectives of the study include:

- documentation of the atmospheric setting
- discussion of criteria pollutants and greenhouse gases
- discussion of the air quality and global climate change regulatory framework
- analysis of the construction related air quality and greenhouse gas emissions
- analysis of the operations related air quality and greenhouse gas emissions
- discussion of the health risk impacts
- analysis of the conformity of the proposed project with the SCAQMD AQMP
- analysis of the project's energy use during construction and operation
- recommendations for mitigation measures

The City of Perris is the lead agency for this air quality and greenhouse gas analysis, in accordance with the California Environmental Quality Act authorizing legislation. Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with terms unique to air quality and global climate change, a definition of terms has been provided in Appendix A.

PROJECT LOCATION

The approximately 27.25-acre project site is located on the northeast corner of Wilson Avenue and Placentia Avenue in the City of Perris, California. The project APN's are 300-170-003, 004, 005, 006, 010, 011, 012, 013, 014, 015, 016, and 017. The project site is currently vacant and located within the Perris Valley Commerce Center Specific Plan. A vicinity map showing the project location is provided on Figure 1.

PROJECT DESCRIPTION

The proposed project is to include a 578,265 square foot high-cube fulfillment center warehouse building. The project site is proposed to provide three access driveways on Wilson Avenue. The project north driveway and project south driveway will be truck only restricted to southbound left turns in and westbound right turns out only. The project central driveway will be a full access automobile only access. For purposes of this analysis, the proposed project is anticipated to be constructed and fully operational by year 2026. Figure 2 illustrates the proposed site plan.

PHASING AND TIMING

The proposed project is anticipated to be constructed and fully operational by the year 2026. The project is anticipated to be built in one phase with project construction anticipated to start no sooner than spring 2025 with a duration of 12 months. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario even if construction was to occur any time after the respective dates since emission factors

for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[1]

SENSITIVE RECEPTORS IN PROJECT VICINITY

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (South Coast Air Quality Management District 2008). Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours.

The nearest sensitive receptors to the project site include: the existing single-family residential uses located approximately 50 feet (~15 meters) to the south of the project site (across Placentia Avenue), 495 feet (~151 meters) to the east/northeast of the project site (across drainage channel), and 695 feet (~212 meters) to the west of the project site (along Redlands Avenue).

[1] As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2020.4.0, Section 4.3.2 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

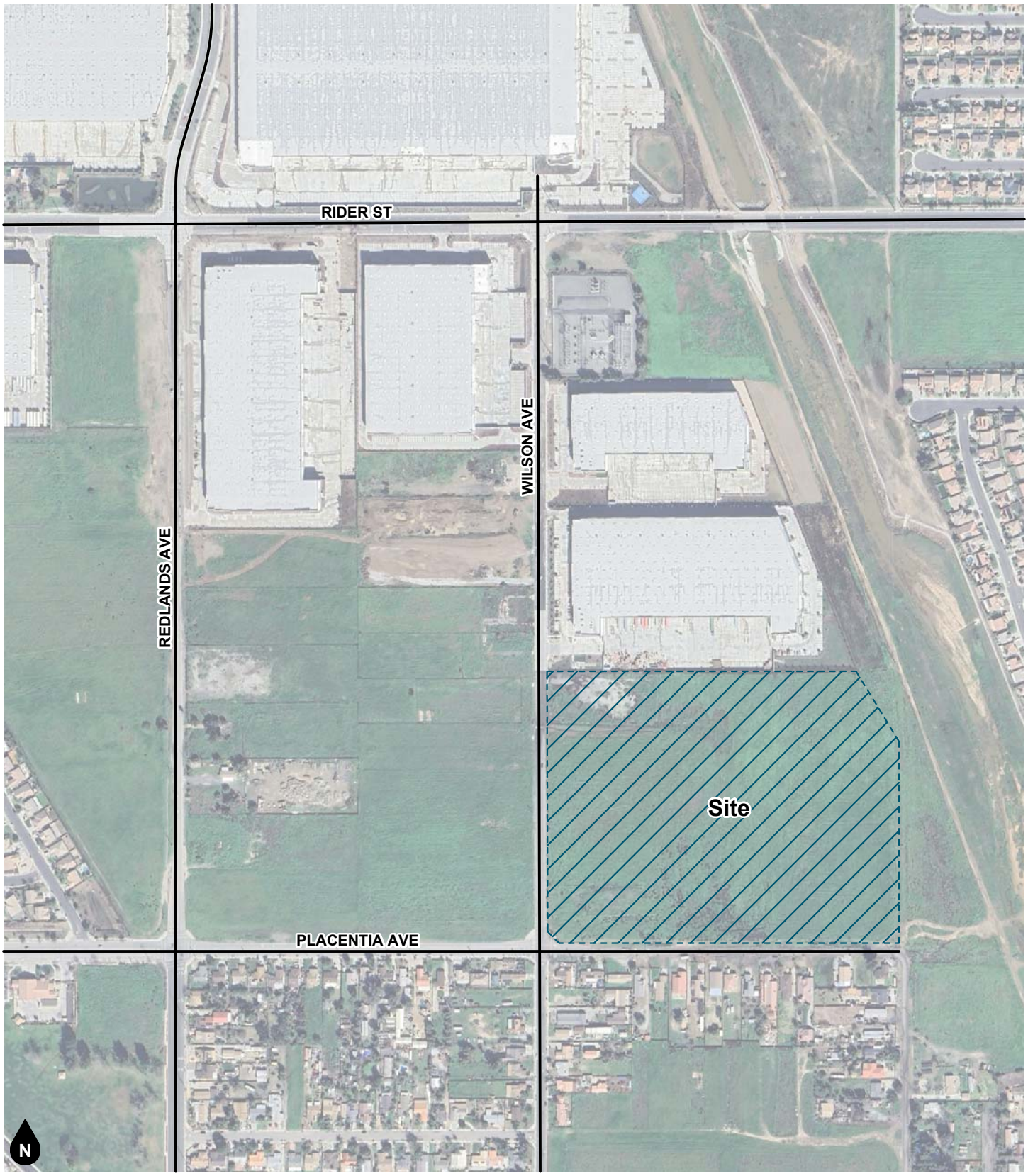


Figure 1
Project Location Map

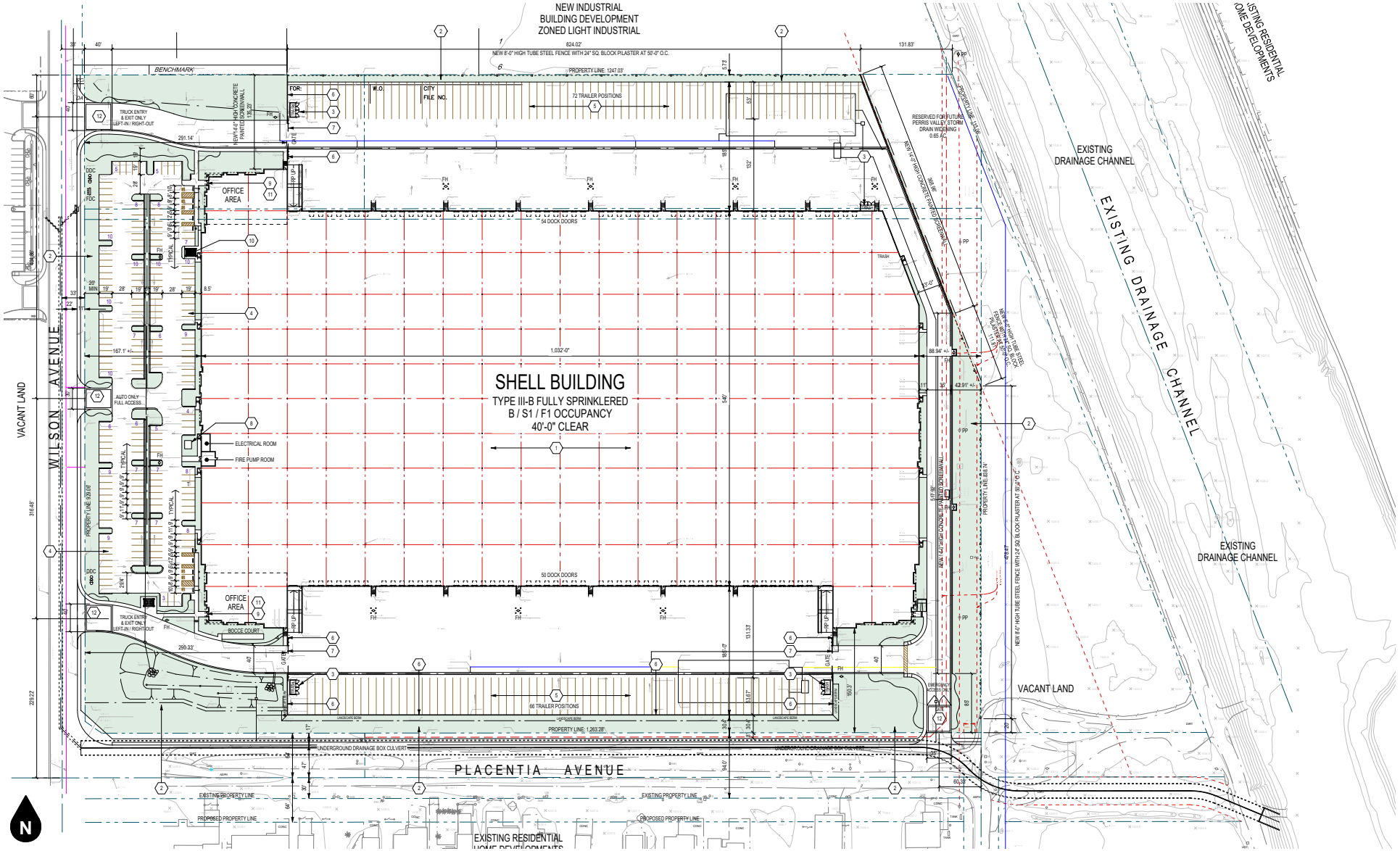


Figure 2
Site Plan

2. AIR QUALITY ANALYSIS

EXISTING AIR QUALITY CONDITIONS

Local Air Quality

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

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

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The topography and climate of southern California combine to make the Basin an area of high air pollution potential. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds.

The usually mild climatological pattern is disrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions that produce ozone. The region experiences more days of sunlight than any other major urban area in the nation except Phoenix (SCAQMD, 2007).

The temperature and precipitation levels for the City of Sun City, the closest station with updated data, are shown below in Table 1. Table 1 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 1
Local Monthly Climate Data

Descriptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	66.7	68.1	71.1	77.2	83.2	91.8	97.6	98.6	93.5	84.2	71.2	66.9
Avg. Min. Temperature	36.3	38.9	41.6	45.1	50.1	54.5	58.6	60.1	57.4	49.3	39.4	35.4
Avg. Total Precipitation (in.)	2.29	3.08	1.95	0.79	0.31	0.07	0.04	0.22	0.1	0.45	0.71	1.33

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8655
Data from the Sun City, CA station (048655).

Pollutants

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

Criteria Pollutants

The criteria pollutants consist of: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, lead, and particulate matter. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants.

Nitrogen Dioxides

Nitrogen Oxides (NOx) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NOx and the pollutants formed from NOx can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone (O_3) is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NOx and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NOx and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NOx and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NOx and VOC emissions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high

traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Dioxide

Sulfur Oxide (SOx) gases (including sulfur dioxide [SO2]) are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SOx dissolve easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead

Lead (Pb) is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter

Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particulate matter is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Reactive Organic Gases (ROG)

Although not a criteria pollutant, reactive organic gases (ROGs), or volatile organic compounds (VOCs), are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important of these toxic air contaminants, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air contaminants can result from emissions from normal operations as well as from accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to the 2013 California Almanac of Emissions and Air Quality, the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). DPM is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a TAC in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot". Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a TAC was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos

Asbestos is listed as a TAC by the CARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Riverside County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located at Asbestos Mountain in the San Jacinto Mountains, approximately 45 miles southeast of the project site. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

REGULATORY SETTING

The proposed project is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

Federal – United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The National Ambient Air Quality Standards (NAAQS) pollutants were identified using medical evidence and are shown below in Table 2.

The EPA and the CARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the Federal annual PM2.5 standard is met if the three-year average of the annual average PM2.5 concentration is less than or equal to the standard. Attainment status is shown in Table 3.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The State Implementation Plan (SIP) must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the State Implementation Plan (SIP).

As indicated below in Table 3, the Basin has been designated by the EPA as a non-attainment area for ozone (O_3) and suspended particulates (PM2.5). Currently, the Basin is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), suspended particulate matter (PM-10), and nitrogen dioxide (NO_2).

State – California Air Resources Board

The CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP). The California Ambient Air Quality Standards (CAAQS) for criteria pollutants are shown in Table 2. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. Furthermore, the motor vehicle emission standards established by CARB include compliance with the Safer Affordable Fuel-Efficient Vehicles (SAFE) Rule, issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020). The SAFE Rule sets fuel economy and carbon dioxide standards that increase 1.5 percent in stringency each year from model years 2021 through 2026, and apply to both passenger cars and light trucks. CARB. It also sets fuel specifications to further reduce vehicular emissions.

The South Coast Air Basin has been designated by the CARB as a nonattainment area for ozone, PM10 and PM2.5. Currently, the South Coast Air Basin is in attainment with the ambient air quality standards for CO, lead, SO2, NO2, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

On June 20, 2002, the CARB revised the PM10 annual average standard to 20 µg/m3 and established an annual average standard for PM2.5 of 12 µg/m3. These standards were approved by the Office of Administrative Law in June 2003 and are now effective. On September 27, 2007 CARB approved the South Coast Air Basin and the Coachella Valley 2007 Air Quality Management Plan for Attaining the Federal 8-hour

Ozone and PM2.5 Standards. The plan projected attainment for the 8-hour Ozone standard by 2024 and the PM2.5 standard by 2015.

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, Title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California.

The CARB is also responsible for regulations pertaining to TACs. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into the South Coast Air Basin. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

AB 617 Nonvehicular air pollution: criteria air pollutants and toxic air contaminants

This bill requires the state board to develop a uniform statewide system of annual reporting of emissions of criteria air pollutants and TACs for use by certain categories of stationary sources. The bill requires those stationary sources to report their annual emissions of criteria air pollutants and TACs, as specified. This bill required the state board, by October 1, 2018, to prepare a monitoring plan regarding technologies for monitoring criteria air pollutants and TACs and the need for and benefits of additional community air monitoring systems, as defined. The bill requires the state board to select, based on the monitoring plan, the highest priority locations in the state for the deployment of community air monitoring systems. The bill requires an air district containing a selected location, by July 1, 2019, to deploy a system in the selected location. The bill would authorize the air district to require a stationary source that emits air pollutants in, or that materially affect, the selected location to deploy a fence-line monitoring system, as defined, or other specified real-time, on-site monitoring. The bill authorizes the state board, by January 1, 2020, and annually thereafter, to select additional locations for the deployment of the systems. The bill would require air districts that have deployed a system to provide to the state board air quality data produced by the system. By increasing the duties of air districts, this bill would impose a state-mandated local program. The bill requires the state board to publish the data on its Internet Web site.

Regional

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. On June 30, 2016, the SCAQMD released its Draft 2016 AQMP.

Air Quality Management Plan

The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. On March 23, 2017 the CARB approved the 2016 AQMP. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. Now that the Plan has been approved by the CARB, it has been forwarded to the U.S. EPA for its review. The Plan was approved by the EPA on June 15, 2017.

In May 2022, the SCAQMD completed the 2022 Draft AQMP. The 2022 Draft AQMP is focused on attaining the 2015 8-hour ozone standard (70 ppb) for the South Coast Air Basin and Coachella Valley. The Draft 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emission technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP was adopted December 2, 2022, by SCAQMD Governing Board. The 2022 AQMP was approved and adopted by CARB on January 26, 2023.The 2022 AQMP strategy includes the following:[2]

- Wide adoption of zero emissions technologies anywhere available.
- Low NOx technologies where zero emissions aren't feasible.
- Federal Action.
- Zero emissions technologies for residential and industrial sources such as water and space heaters in buildings and homes regionwide.
- Incentive funding in environmental justice areas.
- Prioritize benefits on the most disadvantaged communities.

SCAQMD Rules and Regulations

During construction and operation, the project must comply with applicable rules and regulations. The following are the rules that the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402

Prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403

Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles

[2] SCAQMD 2022 AQMP Infographic. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2022-aqmp-infographic

per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 445

Prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

SCAQMD Rule 481

Applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

(1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
(2) Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
(3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108

Governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113

Governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143

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

SCAQMD Rule 1186

Limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303

Governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other pollutants.

SCAQMD Rule 1401

New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit TACs.

SCAQMD Rule 1403

Asbestos Emissions from Demolition/Renovation Activities, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM).

SCAQMD Rule 2202

On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

SCAQMD Rule 2305

The Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program aims to reduce nitrogen oxide and diesel emissions associated with warehouses, help meet federal standards and improve public health. The WAIRE Program is an indirect source rule that regulates warehouse facilities to reduce emissions from the goods movement industry. Owners and operators of warehouses that have 100,000 square feet or more of indoor floor space in a single building must comply with the WAIRE Program. WAIRE is a menu-based point system in which warehouse operators are required to earn a specific number of points every year. The yearly number of points required is based on the number of trucks trips made to and from the warehouse each year, with larger trucks such as tractors or tractor-trailers multiplied by 2.5. Warehouse operators may be exempt from parts of the rule if they operate less than 50,000 square feet of warehousing activities, if the number of points required is less than 10, or if the WAIRE menu action chosen under performs due to circumstances beyond the operator's control, such as a manufacturer defect. SCAQMD Rule 316 establishes fees to fund Rule 2305 compliance activities.

Air Quality Guidance Documents

SCAQMD CEQA Handbook

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance with the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the CEQA Air Quality Handbook (SCAQMD CEQA Handbook) prepared by the SCAQMD (1993) with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs of the AQMP. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that the SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. SCAQMD is in the process of developing an "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993. The 1993 CEQA Air Quality Handbook is still available but not online. In addition, there are sections of the 1993 Handbook that are obsolete. In order to assist the CEQA practitioner in conducting an air quality analysis while the new Handbook is being prepared, supplemental information regarding: significance thresholds and analysis, emissions factors, cumulative impacts emissions analysis, and other useful subjects, are available at the SCAQMD website[3]. The SCAQMD CEQA Handbook and supplemental information is used in this analysis.

Southern California Association of Governments

The 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 is the Federally designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan (RTIP), which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency, analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

[3] http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS or Plan). The Plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The Plan charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It outlines more than $556.5 billion in transportation system investments through 2040. The Plan was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. In June 2016, SCAG received its conformity determination from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) indicating that all air quality conformity requirements for the 2016 RTP/SCS and associated 2015 FTIP Consistency Amendment through Amendment 15-12 have been met.

On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy), and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than $638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

Local – City of Perris

Local jurisdictions, such as the City of Perris, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2022 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized 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.

The City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Air Quality Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The Healthy Community Element as well as the Conservation Element of the Perris General Plan summarize air quality issues in the Basin, air quality-related plans and programs administered by federal, state, and special purpose agencies, and establishes goals and policies to improve air quality.

Applicable goals and policies from the Healthy Community Element include:

Goal HC-6 Healthy Environment – Support efforts of local businesses and regional agencies to improve the health of our region's environment.

Policy HC-6.1 Support regional efforts to improve air quality through energy efficient technology, use of alternative fuels, and land use and transportation planning.

Policy HC-6.3 Promote measures that will be effective in reducing emissions during construction activities

- Perris will ensure that construction activities follow existing South Coast Air Quality Management District (SCAQMD) rules and regulations.

- All construction equipment for public and private projects will also comply with California Air Resources Board's vehicle standards. For projects that may exceed daily construction emissions established by the SCAQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD.
- Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures among others. Appropriate control measures will be determined on a project-by-project basis, and should be specific to the pollutant for which the daily threshold is exceeded.

Applicable goals and policies from the Conservation Element include:

Goal X Encourage improved energy performance standards above and beyond the California Title 24 requirements.

Policy X.B Encourage the use of trees within project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.

Table 2
State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O_3)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.070 ppm/8-hour	(a) Decline in pulmonary function and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm/1-hour 9.0 ppm/8-hour	35.0 ppm/1-hour 9.0 ppm/8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm/1-hour 0.03 ppm/annual	100 ppb/1-hour 0.053 ppm/annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm/1-hour 0.04 ppm/24-hour	75 ppb/1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM_{10})	50 µg/m^3/24-hour 20 µg/m^3/annual	150 µg/m^3/24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3/24-hour 12 µg/m^3/annual	
Sulfates	25 µg/m^3/24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) property damage.
Lead	1.5 µg/m^3/30-day	0.15 µg/m^3/3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf

Table 3
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Unclassifiable/Attainment
Nitrogen dioxide	Attainment	Unclassifiable/Attainment
Sulfur dioxide	Attainment	Unclassifiable/Attainment
PM10	Nonattainment	Nonattainment
PM2.5	Attainment	Unclassifiable/Attainment

Source : Source (Federal and State Status): SCAQMD 2022 Air Quality Management Plan (December 2022) http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

MONITORED AIR QUALITY

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the Final 2022 Air Quality Management Plan prepared by SCAQMD (December 2022) indicate that collectively, mobile sources account for 46 percent of the VOC, 85 percent of the NOx emissions, 89 percent of the CO emissions and 29 percent of directly emitted PM2.5, with another 18 percent of PM2.5 from road dust.

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in the Perris Valley Air Monitoring Area (Area 24), which is located in Riverside County and covers from the San Bernardino and Riverside County line on the north, Paloma Valley on the south, Perris on the west, and the San Jacinto Valley on the east. The nearest air monitoring station to the project site is the Perris Monitoring Station (Perris Station). The Perris Station is located approximately 2.6 miles southwest of the project site at 237 ½ N. D Street, Perris. As not all monitoring stations monitor all pollutants, data was also taken from the Lake Elsinore-W Flint Street Monitoring Station (Lake Elsinore Station) located approximately 12.15 miles southwest of the project site at 506 W Flint Street, Lake Elsinore. However, it should be noted that due to the air monitoring stations distances from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site. Table 4 presents the monitored pollutant levels from the Perris and Lake Elsinore Stations.

Table 4 summarizes 2020 through 2022 published monitoring data, which is the most recent 3-year period available. The data shows that during the past few years, the project area has exceeded the ozone standards.

Ozone

During the 2020 to 2022 monitoring period, the State 1-hour concentration standard for ozone was exceeded between 25 and 34 days each year at the Perris Station. The State 8-hour ozone standard has been exceeded between 60 and 77 days each year over the past three years at the Perris Station. The Federal 8-hour ozone standard was exceeded between 55 and 74 days each year over the past three years at the Perris Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Lake Elsinore Station did not record an exceedance of the state or federal 8-hour CO standard for the last three years.

Nitrogen Dioxide

The Lake Elsinore Station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

Particulate Matter

The State 24-hour concentration standards for PM10 were exceeded between four and six days each year over the last three years at the Perris Station. Over the past three years, the Perris Station did not record an exceedance of the Federal 24-hour standards for PM10.

There was insufficient data over the last three years for the Federal 24-hour standard for PM2.5 at the Lake Elsinore Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

Table 4
Air Quality Monitoring Summary

Pollutant (Standard)[1]		Year		
		2020	2021	2022
Ozone:	Maximum 1-Hour Concentration (ppm)	0.125	0.117	*
	Days > CAAQS (0.09 ppm)	34	25	*
	Maximum 8-Hour Concentration (ppm)	0.106	0.094	*
	Days > NAAQS (0.070 ppm)	74	55	*
	Days > CAAQS (0.070 ppm)	77	60	*
Carbon Monoxide:[2]	Maximum 8-Hour Concentration (ppm)	*	*	*
	Days > CAAQS (9 ppm)	0	0	0
	Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:[2]	Maximum 1-Hour Concentration (ppm)	0.044	0.044	0.037
	Days > CAAQS (0.18 ppm)	0	0	0
Inhalable Particulates (PM10):	Maximum 24-Hour Concentration (µg/m^3)	92.3	77.5	*
	Days > NAAQS (150 µg/m3)	0	0	0
	Days > CAAQS (50 µg/m3)	6	4	0
	Annual Average (µg/m3)	33.4	30.4	*
Ultra-Fine Particulates (PM2.5):[2]	Maximum 24-Hour Concentration (µg/m3)	41.6	28.8	16.2
	Days > NAAQS (35 µg/m3)	*	*	*
	Annual Average (µg/m3)	7.2	6.9	5.8

Notes:

Source: http://www.arb.ca.gov/adam/topfour/topfour1.php. Data from the Perris Monitoring Station, unless otherwise noted.

(1) CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million

* Means there was insufficient data available to determine value.

(2) Data taken from the Lake Elsinore-W Flint Street Monitoring Station.

AIR QUALITY STANDARDS

Significance Thresholds

Appendix G of the State CEQA Guidelines

Appendix G of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make a significance determination. Pursuant to Appendix G, the project would result in a significant impact related to air quality if it would:

- Conflict with or obstruct the implementation of the applicable air quality plan;
- 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;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The CEQA Guidelines Section 15064.7 provides the significance criteria established by the applicable air quality management district or air pollution control district, when available, may be relied upon to make determinations of significance. The potential air quality impacts of the project are, therefore, evaluated according to thresholds developed by SCAQMD in their CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent guidance, which are listed below.[4] Therefore, the project would result in a potentially significant impact to air quality if it would:

AIR-1: Conflict with or obstruct the implementation of the applicable air quality plan;

AIR-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation as a result of:

- Criteria pollutant emissions during construction (direct and indirect) in excess of the SCAQMD's regional significance thresholds,
- Criteria pollutant emissions during operation (direct and indirect) in excess of the SCAQMD's regional significance thresholds.

AIR-3: 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors);

AIR-4: Expose sensitive receptors to substantial pollutant concentrations that would:

- Exceed SCAQMD's localized significance thresholds,
- Cause or contribute to the formation of CO hotspots.

AIR-5: Create objectionable odors affecting a substantial number of people.

[4] While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from industrial land use projects such as the Project. As a result, lead emissions are not further evaluated herein.

The SCAQMD is in the process of developing an Air Quality Analysis Guidance Handbook to replace the CEQA Air Quality Handbook. In the interim, supplemental guidance has been adopted by the SCAQMD. The potential air quality impacts of the project are, therefore, evaluated according to numeric indicators developed by the SCAQMD in the CEQA Air Quality Handbook and supplemental guidance from the SCAQMD.[5]

Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, the SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the South Coast Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table 5.

Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significance Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significance Threshold Methodology (LST Methodology), revised July 2008, which details the methodology to analyze local air emission impacts. The Localized Significance Threshold Methodology found that the primary emissions of concern are NO_2, CO, PM10, and PM2.5.

The significance thresholds for the local emissions of NO_2 and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from Table 4 above, from the most restrictive ambient air quality standards for these pollutants that are outlined in the Localized Significance Thresholds. Table 5 shows the ambient air quality standards for NO_2, CO, and PM10 and PM2.5.

Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to TACs in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- TACs from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to hazardous air pollutants (HAP), the Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, (Diesel Analysis), prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create hazardous air pollutants through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the

[5] While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from residential land use projects such as the Project. As a result, lead emissions are not further evaluated herein.

source of the hazardous air pollutants and the toxicity of the hazardous air pollutants should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

The potential for health risks due to project-related DPM emissions is examined in Section 3 of this report.

Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

Table 5
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds[1]		
Pollutant	Construction (lbs/day)	Operation (lbs/day)
NOx	100	55
VOC	75	55
PM10	150	150
PM2.5	55	55
SOx	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants (TACs), Odor and GHG Thresholds		
TACs (including carginogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index > 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO2e for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants[2]		
NO2 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) & 0.0534 ppm (federal)	
PM10 24-hour average annual average	10.4 µg/m^3 (construction)[3] & 2.5 ug/m^3 (operation) 1.0 ug/m^3	
PM2.5 24-hour average	10.4 µg/m^3 (construction)[3] & 2.5 µg/m^3 (operation)	
SO2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 µg/m^3 (state)	
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) & 35 ppm (federal) 9 ppm (state/federal)	
Lead 30-day average Rolling 3-month average	1.5 µg/m^3 (state) 0.15 µg/m^3 (federal)	

Notes:
Source: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook
(1) Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)
(2) Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.
(3) Ambient air quality threshold based on South Coast AQMD Rule 403.

SHORT-TERM CONSTRUCTION EMISSIONS

Construction activities associated with the proposed project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the proposed project were obtained from the project applicant. The construction activities for the proposed project are anticipated to include: grading of approximately 27.25 acres; construction of a 578,265 square foot warehouse building (includes a 5,000 square foot mezzanine) and landscaping of approximately 107,049 square feet; paving of a parking lot with 201 automobile parking spaces and 138 trailer parking spaces and an additional approximately 9.48 acres for on-site roadways, loading areas and driveways; and application of architectural coatings. Grading of the proposed project is anticipated to balance. See Appendix B for more details.

The proposed project is anticipated to start construction no sooner than spring 2025, taking 12 months to complete. The project is anticipated to be operational in 2026.

Methodology

The following provides a discussion of the methodology used to calculate regional construction air emissions and an analysis of the proposed project's short-term construction emissions for the criteria pollutants. The construction-related regional air quality impacts have been analyzed for both criteria pollutants and GHGs.

Emissions are estimated using the CalEEMod (Version 2022.1.1.22) software, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California and is recommended by the SCAQMD.[6]

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The input values used in this analysis were adjusted to be project-specific for the construction schedule and the equipment used was based on CalEEMod defaults. The CalEEMod program uses the EMFAC2021 computer program to calculate the emission rates specific for the southwestern portion of Riverside County for construction-related employee vehicle trips and the OFFROAD2017 computer program to calculate emission rates for heavy truck operations. EMFAC2021 and OFFROAD2017 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Daily truck trips and CalEEMod default trip length data were used to assess roadway emissions from truck exhaust. The maximum daily emissions are estimated values for the worst-case day and do not represent the emissions that would occur for every day of project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators. Detailed construction equipment lists, construction scheduling, and emission calculations are provided in Appendix B.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent,

[6] South Coast Air Quality Management District, California Emissions Estimator Model, http://www.aqmd.gov/caleemod/.

stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (approximately 27.25 acres) a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures is used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 has been included in the CalEEMod modeling for the proposed project.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied after January 1, 2014 will be limited to an average of 50 grams per liter or less of VOCs for building coatings and 100 grams per liter or less of VOCs for traffic coatings. CalEEMod defaults have been adjusted accordingly.

The phases of the construction activities which have been analyzed below for each phase are: (1) grading, (2) building construction, (3) paving, and (4) application of architectural coatings. Details pertaining to the project's construction timing and the type of equipment modeled for each construction phase are available in the CalEEMod output in Appendix B.

Construction-Related Regional Impacts

The maximum construction-related criteria pollutant emissions from the proposed project are shown below in Table 6. Table 6 shows that none of the project's emissions will exceed regional thresholds. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts.

Local Air Quality Impacts from Construction

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain the following parameters:

(1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
(2) The maximum number of acres disturbed on the peak day.
(3) Any emission control devices added onto off-road equipment.
(4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The CalEEMod output in Appendix B show the equipment used for this analysis.

As shown in Table 7, the maximum number of acres disturbed in a day would be 4 acres during grading. The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold

Methodology prepared by SCAQMD (revised July 2008). The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were calculated based on the Perris Valley source receptor area (SRA) 24 and a disturbance value of two acres per day, to be conservative. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. The nearest sensitive receptors to the project site are the existing single-family residential uses located approximately 50 feet (~15 meters) to the south, 495 feet (~151 meters) to the east/northeast, and 695 feet (~212 meters) to the west of the project site; therefore, the SCAQMD Look-up Tables for 25 meters was used. Table 8 shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds.

The data provided in Table 8 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Construction-Related Health Impacts

Regarding health effects related to criteria pollutant emissions, the applicable significance thresholds are established for regional compliance with the state and federal ambient air quality standards, which are intended to protect public health from both acute and long-term health impacts, depending on the potential effects of the pollutant. Because regional and local emissions of criteria pollutants during construction of the project would be below the applicable thresholds, it would not contribute to long-term health impacts related to nonattainment of the ambient air quality standards. Therefore, significant adverse acute health impacts as a result of project construction are not anticipated.

Construction-Related Toxic Air Contaminant Impacts

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to the Office of Environmental Health Hazard Assessment (OEHHA)[7] and the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003),[8] health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 30-year) resident exposure duration. Given the temporary and short-term construction schedule (approximately 12 months), the project would not result in a long-term (i.e., lifetime or 30-year) exposure as a result of project construction. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds.

The project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities. Therefore, impacts from TACs during construction would be less than significant.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are short-term in nature and the odor emissions are expected to cease upon the drying or hardening of the odor

[7] Office of Environmental Health Hazard Assessment, Air Toxic Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessment, February 2015, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[8] South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, August 2003,http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobile-source-toxics-analysis.doc?sfvrsn=2.

producing materials. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors.

Table 6
Construction-Related Regional Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG[3]	NOx	CO	SO_2	PM10	PM2.5
Maximum Daily Emissions[1,2]	72.60	29.80	48.70	0.07	5.80	2.62
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Notes:

Source: CalEEMod Version 2022.1.1.22.

(1) Includes on-site and off-site emissions. On-site grading PM-10 and PM-2.5 emissions show compliance with SCAQMD Rule 403 for fugitive dust.

(2) Construction, painting and paving phases may overlap.

(3) SCAQMD Rule 1113 limits architectural coatings for buildings to 50 g/L VOC and parking lot striping to 100 g/L VOC.

Table 7
Maximum Number of Acres Disturbed Per Day

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Grading	Rubber Tired Dozers	1	0.5	0.5
	Graders	1	0.5	0.5
	Scrapers	2	1.0	2.0
	Crawler Tractors[1]	2	0.5	1.0
Total for phase		-	-	4.0

Notes:

Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2011b.

(1) Tractor/loader/backhoe is a suitable surrogate for a crawler tractor per SCAQMD staff.

Table 8
Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Grading	29.70	28.30	4.82	2.56
Building Construction	16.70	20.10	0.68	0.62
Paving	7.12	9.94	0.32	0.29
Architectural Coating	0.86	1.13	0.02	0.02
SCAQMD Thresholds[1]	170	883	7	4
Exceeds Threshold?	No	No	No	No

Notes:

Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 2 acres, to be conservative, at a distance of 25 m in SRA 24 Perris Valley.

(1) The nearest sensitive receptors are the existing single-family residential uses located approximately 50 feet (~15 meters) to the south, 495 feet (~151 meters) to the east/northeast, and 695 feet (~212 meters) to the west of the project site; therefore, the 25 meter threshold was used.

Note: The project will disturb up to a maximum of 4 acres a day during grading (see Table 7).

LONG-TERM OPERATIONAL EMISSIONS

The on-going operation of the proposed project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips and through operational emissions from the on-going use of the proposed project. The following section provides an analysis of potential long-term air quality impacts due to: regional air quality and local air quality impacts with the on-going operations of the proposed project.

Operations-Related Regional Air Quality Impacts

The potential operations-related air emissions have been analyzed below for the criteria pollutants and cumulative impacts.

Operations-Related Criteria Pollutants Analysis

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of the CalEEMod model. The operating emissions were based on the year 2026, which is the anticipated opening year per the Placentia Avenue Industrial Traffic Impact Analysis (TIA) prepared by Ganddini Group, Inc. (April 18, 2024) for the proposed project. The operations daily emissions printouts from the CalEEMod model are provided in Appendix B. The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, which are discussed below.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips (trip generation rate) from the TIA into the CalEEMod Model. The TIA found that the proposed project would create approximately 1,047 vehicle trips per day (non-PCE) and 1,252 vehicle trips per day (PCE) with a trip generation rate of 1.81 trips per thousand square foot per day. The program then applies the emission factors for each trip which is provided by the EMFAC2017 model to determine the vehicular traffic pollutant emissions.

The TIA found that the proposed warehouse would create 914 automobile round trips, 22 2-axle truck round trips, 28 3-axle truck round trips, and 83 4+-axle truck round trips per day (non-PCE). The vehicle mix for the Project was changed in CalEEMod to match the TIA (see Table 9) and the percentages in CalEEMod were changed to 87.3% autos (C-W) and 12.7% trucks (C-NW) to match the overall vehicle percentages given in the TIA. Due to the proposed project's location and proposed warehouse land use, the average customer based trip length was increased to 40 miles per SCAQMD recommendation, while all other trip lengths were based on the urban default values.

Area Sources

Per the CAPCOA Appendix A Calculation Details for CalEEMod, area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment. No changes were made to the default area source parameters.

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

Project Impacts

The maximum daily pollutant emissions created from the proposed project's long-term operations have been calculated and are shown below in Table 10. The results show that none of the SCAQMD regional thresholds would be exceeded. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analysis analyzes the vehicular CO emissions, local impacts from on-site operations per SCAQMD LST methodology, and odor impacts.

Local CO Emission Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented above.

To determine if the proposed project could cause emission levels in excess of the CO standards discussed above, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a Level of Service E or worse.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak CO concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: South Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day (2003 AQMP Appendix V, Table 4-7). The Los Angeles County Metropolitan Transportation Authority[9] evaluated the Level of Service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be Level of Service E during the morning peak hour and Level of Service F during the afternoon peak hour (MTA, Exhibit 2-5 and 2-6).

The TIA showed that the proposed project would generate a maximum of approximately 1,047 daily vehicle trips. The intersection with the highest traffic volume is located at Wilson Avenue and Rider Street and has an Opening Year (2026) With Project AM peak hour volume of 823 vehicles. The 1992 Federal Attainment

[9] Metropolitan Transportation Authority, *2004 Congestion Management Plan for Los Angeles County*, Adopted July 22, 2004.

Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. Therefore, as the intersection volume falls far short of 100,000 vehicles per day, no CO "hot spot" modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Local Air Quality Impacts from On-Site Operations

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The nearest sensitive receptors that may be impacted by the proposed project are the existing single-family residential uses located approximately 50 feet (~15 meters) to the south, 495 feet (~151 meters) to the east/northeast, and 695 feet (~212 meters) to the west of the project site.

The local air quality emissions from on-site operations were analyzed according to the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Per SCAQMD staff, the 5-acre Look-up Table, which is the largest site available, can be used as a conservative screening analysis for on-site operational emissions to determine whether more-detailed dispersion modeling would be necessary. The proposed project was analyzed based on the Perris Valley source receptor area (SRA) 24 and, as the site is 27.25 acres, used the thresholds for a five-acre project site.

Table 11 shows the on-site emissions from the CalEEMod model that includes natural gas usage, landscape maintenance equipment, and vehicles operating on-site and the calculated emissions thresholds. Per LST methodology, mobile emissions include only on-site sources which equate to approximately 10 percent of the project-related new mobile sources.[10] The data provided in Table 11 shows that the on-going operations of the proposed project would not exceed SCAQMD local operational thresholds of significance discussed above. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Health Impacts

Regarding health effects related to criteria pollutant emissions, the applicable significance thresholds are established for regional compliance with the state and federal ambient air quality standards, which are intended to protect public health from both acute and long-term health impacts, depending on the potential effects of the pollutant. Because regional and local emissions of criteria pollutants during operation of the project would be below the applicable thresholds, it would not contribute to long-term health impacts related to nonattainment of the ambient air quality standards. Therefore, significant adverse acute health impacts as a result of project operation are not anticipated.

Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from the intermittent diesel delivery truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project.

[10] The project site is approximately 0.3 miles in length at its longest point; therefore the on-site mobile source emissions represent approximately 1/19th of the shortest CalEEMod default distance of 5.75 miles. Therefore, to be conservative, 1/10th the distance (dividing the mobile source emissions by 10) was used to represent the portion of the overall mobile source emissions that would occur on-site.

Table 9
CalEEMod Revised Vehicle Mix Parameters

CalEEMod Vehicle Type	Vehicle Mix from Traffic Analysis	CalEEMod Default Mix[1]		CalEEMod Revised Mix[2]	
		Ratio	Number of Vehicles	Ratio	Number of Vehicles
Light Auto	Automobile	0.496	519	0.471	493
Light Truck < 3750 lbs	Automobile	0.038	40	0.036	38
Light Truck 3751-5750 lbs	Automobile	0.205	215	0.194	203
Med Truck 5751-8500 lbs	Automobile	0.158	166	0.150	157
Lite-Heavy Truck 8501-10,000 lbs	2-Axle Truck	0.031	33	0.016	17
Lite-Heavy Truck 10,001-14,000 lbs	2-Axle Truck	0.009	9	0.005	5
Med-Heavy Truck 14,001-33,000 lbs	3-Axle Truck	0.015	15	0.027	28
Heavy-Heavy Truck 33,001-60,000 lbs	4+-Axle Truck	0.016	17	0.079	83
Other Bus	--	0.001	1	0.000	0
Urban Bus	--	0.000	0	0.000	0
Motorcycle	Automobile	0.023	24	0.022	23
School Bus	--	0.001	1	0.000	0
Motor Home	--	0.006	6	0.000	0
Total		**1.0**	**1,047**	**1.0**	**1,047**

Notes:

(1) Source: CalEEMod Version 2022.1.1.22 default values for Opening year of 2026.

(2) Revised per the vehicle mix provided in the Traffic Impact Analysis (Ganddin Group, Inc., April 18, 2024) of 87.3% Autos, 2.1% 2-Axle Trucks, 2.7% 3-Axle Trucks and 7.9% 4+ Axle Trucks.

Table 10
Regional Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO2	PM10	PM2.5
Maximum Daily Emissions	22.80	16.70	103.00	0.27	19.70	5.37
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:

Source: CalEEMod Version 2022.1.1.22; the higher of either summer or winter emissions.

Table 11
Local Operational Emissions at the Nearest Receptors

	On-Site Pollutant Emissions (pounds/day)[1]			
On-Site Emission Source	NOx	CO	PM10	PM2.5
Area Sources[2]	0.21	25.10	0.04	0.03
Energy Usage[3]	2.97	2.49	0.23	0.23
Vehicle Emissions[4]	1.38	7.52	1.95	0.51
Total Emissions	4.56	35.11	2.22	0.77
SCAQMD Thresholds[5]	270	1,577	4	2
Exceeds Threshold?	No	No	No	No

Notes:

(1) Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 5 acres in SRA 24.

(2) Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

(3) Energy usage consists of emissions from on-site natural gas usage.

(4) On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.

(5) The nearest sensitive receptors are the existing single-family residential uses located approximately 50 feet (~15 meters) to the south, 495 feet (~151 meters) to the east/northeast, and 695 feet (~212 meters) to the west of the project site; therefore, the 25 meter threshold was used.

CUMULATIVE AIR QUALITY IMPACTS

There are a number of cumulative projects in the project area that have not yet been built or are currently under construction. Since the timing or sequencing of the cumulative projects is unknown, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. Further, cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered would cover an even larger area. The SCAQMD recommends using two different methodologies: (1) that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality;[11] and (2) that a project's consistency with the current AQMP be used to determine its potential cumulative impacts.

Project Specific Impacts

The project area is out of attainment for ozone, PM10, and PM2.5. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic volumes from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. This applies to TACs as well, as the SCAQMD does not have any cumulative TAC thresholds; therefore, projects that do not exceed the SCAQMD TAC threshold criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant.

Project operations would generate emissions of NOx, ROG, CO, PM10, and PM2.5, which, would not exceed the SCAQMD regional or local thresholds and would not be expected to result in ground level concentrations that exceed the NAAQS or CAAQS. The project will not be a source of significant TACs and will not cause significant cancer or non-cancer-related health risks. Since the project would not introduce any substantial stationary sources of emissions, CO is the benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations. As indicated earlier, no violations of the state and federal CO standards are projected to occur for the project, based on the magnitude of traffic the project is anticipated to create.

Therefore, operation of the project would not result in a cumulatively considerable net increase for non-attainment of criteria pollutants or ozone precursors, or TACs. As a result, the project would result in a less than significant cumulative impact for operational emissions.

Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to

[11] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, 1993, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
(2) Whether the project will exceed the assumptions in the AQMP in 2022 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criteria 1 – Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that, long-term operations impacts will not result in significant impacts based on the SCAQMD local and regional thresholds of significance.

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

Criteria 2 – Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2020-2045 Regional Transportation/Sustainable Communities Strategy prepared by SCAG (2020) includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Perris Land Use Plan defines the assumptions that are represented in the AQMP.

The project site has a Land Use Designation in the Perris Valley Commerce Center Specific Plan of Light Industrial. The project proposes to develop the site with a 578,265 square foot high-cube fulfillment center warehouse building. Therefore, the proposed project is consistent with the City's land use designation. The proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur.

3. DIESEL EMISSIONS HEALTH RISK ASSESSMENT

The on-going operation of the proposed project would generate toxic air contaminant emissions from diesel truck emissions created by the on-going operations of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of revised Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology.[12]

A health risk assessment requires the completion and interaction of four general steps:

(1) Quantify project-generated TAC emissions.
(2) Identify nearby ground-level receptor locations that may be affected by the emissions (including any special sensitive receptor locations such as residences, schools, hospitals, convalescent homes, and daycare centers).
(3) Perform air dispersion modeling analyses to estimate ambient pollutant concentrations at each receptor location using project TAC emissions and representative meteorological data to define the transport and dispersion of those emissions in the atmosphere.
(4) Characterize and compare the calculated health risks with the applicable health risk significance thresholds.

EMISSIONS INVENTORY DEVELOPMENT

Important issues that affect the dispersion modeling include the following: (1) Model Selection, (2) Source Treatment, (3) Meteorological Data, and (4) Receptor Grid. Each of these issues is addressed below.

Emission Source Estimates – DPM for Motor Vehicles

DPM emissions from the various sources were calculated using information derived from the project description, and mobile source emission factors from the CARB EMFAC2021 emissions factor model. Truck mix information was obtained from the *Placentia Avenue Industrial* (TIA) prepared by Ganddini Group, Inc. (April 18, 2024).

Four pieces of information are required to generate the mobile source emissions from the proposed project:

- Number of vehicle trips for each component of the proposed project;
- Types of vehicles that access the proposed project (passenger car vs. heavy-duty truck and gasoline vs. diesel);
- The allocation of the vehicle trips to each building that comprises the proposed project; and
- Estimate of the vehicle emission factors for estimating exhaust and idling emissions.

Estimate of Vehicle Trips and Vehicle Types

The TIA showed the project is expected to generate approximately 1,047 (non-passenger car equivalents) vehicle trips per day. Of those vehicle trips, 914 are automobile round trips, 22 are 2-axle truck round trips, 28 are 3-axle truck round trips, and 83 are 4+-axle truck round trips per day (non-passenger car equivalents).

[12] In February 2015, the Office of Environmental Health Hazard Assessment updated their "Air Toxics Hot Spots Program, Risk Assessments Guidelines, Guidance Manual for Preparation of Health Risk Assessments; however, the updated OEHHA guidance states in the page footers "do not cite or quote." SCAQMD staff have incorporated the updates into their methodology for SCAQMD's Rules 1401, 1401.1, 1402, and 212, and have updated their HRA Guidance for permitting; however they are still in the process of updating the guidance for CEQA analyses (via working group sessions); however, to be conservative, the new OEHHA guidance was used to assess HRA impacts in this analysis. Per SCAQMD staff (personal communication with Dr. Jillian Wong 6-19-2015 and 12-22-15), updated SCAQMD HRA guidance will be forthcoming.

Estimate of Emission Factors

The DPM emission factors for the various vehicle types were derived from the CARB EMFAC2021 mobile source emission model. The emissions factors were derived for Riverside County. Emissions factors were estimated to establish the emissions generated while the vehicles travel off-site, along travel links from the entrance to the loading docks, and while idling at the loading dock during loading or unloading materials. All vehicles were assumed to travel on-site at a speed of 10 miles per hour. Off-site, the speeds along the roads were anticipated to average 35 miles per hour. Delivery vehicles were assumed to idle for a maximum of 15 minutes per vehicle per day (5 minutes per location: at the facility entrance, at the loading bay/truck parking area, and at the facility exit), in keeping with the CARB Air Toxic Control Measure (ATCM), which regulates truck idling time (CARB 2005). The four different sets of emissions factors used in this assessment are detailed in Table 12. It should be noted that the DPM emissions on both the gram per mile and gram per idle hour bases decline beyond 2026 for all vehicle classes and in particular the heavy-heavy-duty truck class (the 4+ axle "big rig" trucks). This is due to the CARB emissions' requirements on heavy-duty trucks that call for either the replacement of older trucks with cleaner trucks or the installation of diesel particulate matter filters on the truck fleet.

Emission Source Characterization

Each of the emission source types described above also requires geometrical and emission release specifications for use in the air dispersion model. An average truck height of 13.5 feet and average truck width of 8.5 feet were entered into the haul road calculator in AERMOD in order to calculate the plume height and release height for the line sources. Table 13 provides a summary of the assumptions used to configure the various emission sources. The following definitions are used to characterize the emission source geometrical configurations referred to in Table 13:

- Point source: A single, identifiable, local source of emissions; it is approximated in the AERMOD air dispersion model as a mathematical point in the modeling region with a location and emission characteristics such as height of release, temperature, etc., for example, a truck idle location where emissions are sourced from the truck's exhaust stack while the vehicle is stationary.

- Line source: A series of volume sources along a path, for example, vehicular traffic volumes along a roadway.

Figure 3 provides the location of the project buildings, emission source locations, and the locations of the nearest sensitive receptors: the existing single-family residential uses located approximately 50 feet (~15 meters) to the south of the project site (across Placentia Avenue), 495 feet (~151 meters) to the east/northeast of the project site (across drainage channel), and 695 feet (~212 meters) to the west of the project site (along Redlands Avenue). The most-impacted residential receptors are shown as orange triangles labeled 1 through 6. The direction of on-site and off-site truck travel were obtained from the site plan, TIA, and City truck routes.

RECEPTOR NETWORK

The assessment requires that a network of receptors be specified where the impacts can be computed at the various locations surrounding the project. Receptors were located at the closest existing sensitive receptors surrounding the proposed project (as detailed above). In addition, the identified sensitive receptor locations were supplemented by the specification of a modeling grid that extended around the proposed project to identify other potential locations of impact. The locations of the receptors are shown as orange triangles on Figure 3.

DISPERSION MODELING

The next step in the assessment process utilizes the emissions inventory along with a mathematical air dispersion model and representative meteorological data to calculate impacts at the various receptor locations. The dispersion model used in this assessment is described below.

Model Selection

The assessment of air quality and health risk impacts from pollutant emissions from this project applied the USEPA AERMOD Model, which is the air dispersion model accepted by the SCAQMD for performing air quality impact analyses. AERMOD predicts pollutant concentrations from point, area, volume, line, and flare sources with variable emissions in terrain from flat to complex with the inclusion of building downwash effects from buildings on pollutant dispersion. It captures the essential atmospheric physical processes and provides reasonable estimates over a wide range of meteorological conditions and modeling scenarios. AERMOD View Version 12.0.0, EPA version No. 22112, was utilized for this analysis.

General Model Assumptions

A summary of Emission Configurations is shown in Table 13. The basic options used in the dispersion modeling are summarized in Table 14.

As indicated in Table 14 the analysis takes into account the effects of building downwash on the dispersion of emissions from the various sources located on the project's property. Building downwash occurs when the aerodynamic turbulence, induced by nearby buildings, causes pollutants emitted from an elevated source to be mixed rapidly toward the ground (downwash), resulting in potentially higher ground-level concentrations than if the buildings were not present. The AERMOD dispersion model contains algorithms to account for building downwash effects. The required information includes the location of the emission source; the location of adjacent buildings; and the building geometry in terms of length, width, and height. For purposes of this analysis, the emission source and building locations were taken from the project site plan. The proposed building geometries were obtained from the project plans, assuming a building height of approximately 40 feet.

Meteorological Data

Meteorological data (processed with the ADJ_U option) from the Air District's Perris monitoring site was selected for this modeling application. Five full years of sequential meteorological data was collected at the site from January 1, 2012 to December 31, 2016 by the SCAQMD. The SCAQMD processed the data for input to the model. The data was obtained at SCAQMD's https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod (see Figure 4).

ESTIMATION OF HEALTH RISKS

Health risks from diesel particulate matter are twofold. First, diesel particulate matter is a carcinogen according to the State of California. Second, long-term chronic exposure to diesel particulate matter can cause health effects to the respiratory system. Each of these health risks is discussed below.

Cancer Risks

According to the *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, released by the Office of Environmental Health Hazard Assessment (OEHHA) in February 2015 and formally adopted in March 2015, the residential inhalation dose for cancer risk assessment should be calculated using the following formula:

[Dose-air (mg/(Kg-day)]*Cancer Potency*[1x10^{-6}] = Potential Cancer Risk

Where:
Cancer Potency Factor = 1.1
Dose-inh = (C¬air * DBR * A * EF * ED *ASF*FAH* 10-6) / AT

Where:
Cair [Concentration in air (µg/m^3)] = (Calculated by AERMOD Model)
DBR [Daily breathing rate (L/kg body weight – day)] = 261 for adults, 572 for children, and 1,090 for infants, and 361 for 3rd trimester per SCAQMD Permit Application Package "N" Table 4.1 D guidance.

A [Inhalation absorption factor] = 1
EF [Exposure frequency (days/year)] = 350
ED [Exposure duration (years)] = 30 for adults (for an individual who is an adult at opening year), 14 for children (from 2-16 years), 14 for adults (from 16-30 years), 2 for infants, and 1 for 3rd Trimester
ASF [Age sensitivity factor) = 10 for 3rd trimester to 2 years of age, 3 for 2 to 16 years of age, and 1 for 16 to 30 years of age
FAH [Fraction of time spent at home] = 1 for 3rd trimester to 2 years of age, 1 for 2 to 16 years of age, and 0.73 for 16 to 30 years of age
10^6 [Micrograms to milligrams conversion]
AT [Average time period over which exposure is averaged in days] = 25,550

The model run results are shown in Appendix C. Figure 5 illustrates the cancer risk to the most affected age-group, children (2-16 years). Table 15 show the cancer risk for the unborn child during the 3rd trimester, Table 16 shows the cancer risk to infants (0-2 years), Table 17 shows the cancer risk to children ages 2 to 16 years and Table 18 shows the cancer risk as that child becomes an adult (years 16-30).

The highest cancer risk is to children 2-16 years and is located at receptor 3, with a maximum risk of 1.13 in one million. The maximum 3rd trimester (0.25-year) cancer risk is at receptor 3; with a maximum cancer risk of 0.04 in a million. The highest infant (0-2 years) cancer risk is at receptor 3; with a maximum risk of 1.02 in one million and the highest adult (16-30 years) cancer risk is also at receptor 3; with a maximum risk of 0.13 in one million. Therefore, no children, infants, or adults are exposed to cancer risks in excess of 10 in a million.

The assessment of cancer-related health risk to sensitive receptors within the project vicinity is based on the following most-conservative scenario:

An unborn child in its 3rd trimester is potentially exposed to DPM emissions (via exposure of the mother) during the opening year. That child is born opening year and then remains at home for the entire first two years of life. From age 2 to 16, the child remains at home 100 percent of the time. From age 16 to 30, the child continues to live at home, growing into an adult that spends 73 percent of its time at home and lives there until age 30.

Based on the above, ultra-conservative assumptions, the 30.25-year, cumulative carcinogenic health risk (3rd trimester [-0.25 to 0 years] + infant [0-2 years] + child [2-16 years] + adult [16-30 years]) to an individual born during the opening year of the project, and located in the project vicinity for the entire 30-year duration, is a maximum of 2.32 in a million at receptor location 3, as shown in Table 19. Therefore, as the maximum incremental cancer risk (MICR) does not exceed 10 in a million at any sensitive receptor location, the on-going operation of the proposed project would result in a less than significant impact due to the cancer risk from diesel emissions created by the proposed project.

Non-Cancer Risks

The relationship for non-cancer health effects is given by the equation:

HIDPM = CDPM/RELDPM

Where,

HIDPM	=	Hazard Index; an expression of the potential for non-cancer health effects.
CDPM	=	Annual average diesel particulate matter concentration in µg/m3.
RELDPM	=	Reference Exposure Level (REL) for diesel particulate matter; the diesel particulate matter concentration at which no adverse health effects are anticipated.

The non-carcinogenic hazards to adult, child and infant receptors are also detailed in Tables 15 through 18 column (j). The RELDPM is 5 µg/m^3. The Office of Environmental Health Hazard Assessment as protective for the respiratory system has established this concentration. Using the maximum DPM concentration from opening year 2026, the resulting Hazard Index is:

HIDPM = 0.00312/5 = 0.0006

The criterion for significance is a Hazard Index increase of 1.0 or greater. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer risk from diesel emissions created by the proposed project.

Cumulative Cancer Risk

In accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. This applies to TACs as well, as the SCAQMD does not have any cumulative TAC thresholds; therefore, projects that do not exceed the SCAQMD TAC threshold criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact.

As shown in CalEEMod output data in Appendix B, the project is located in an area with CalEnviroScreen 4.0 score for the project location of 52.0.[13] According to the SCAQMD's MATES-V study, the project area has an estimated multi-pathway cancer risk of 310 in a million and an inhalation pathway cancer risk of 287 in one million. In comparison the average multi-pathway cancer risk for the South Coast Air Basin portion of Riverside County is 332 in one million and the inhalation risk is 313 in a million.

As detailed above, the 30.25-year, cumulative carcinogenic health risk is a maximum of 2.32 in a million at the most-impacted receptor location, the existing residential use closest to the southern loading docks on the southern side of Placentia Avenue. Therefore, the project's diesel emissions do not exceed the SCAQMD MICR threshold of 10 in a million and the project would not be considered to be cumulatively significant for TACs.

[13] The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Table 12
DPM Emissions Factors for the Proposed Project

Vehicle Class	1-Year Average (Opening Year 2026)		
	On-Site Travel (g/mi)	Off-Site Travel (g/mi)	Idling (g/hr)
Light Heavy Duty Truck 2	0.04702	0.01946	0.77754
Medium Heavy Duty Truck	0.02675	0.00660	0.04976
Heavy Heavy Duty Truck	0.01146	0.00773	0.01392

Notes:
Source: EMFAC2021.

Table 13
Summary of Emission Configurations

Emission Source Type	Geometric Configuration	Relevant Assumptions
Off-Site Diesel Truck Traffic	Line Sources	Stack release height: 3.5 m
		Vehicle speed: 35 mph
		Length of the line sources along Wilson Avenue, Rider Street, and Redlands Avenue.
		Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		Emission factor: CARB EMFAC2021
On-Site Diesel Truck Traffic	Line Sources	Stack release height: 3.5 m
		Vehicle speed: 10 mph
		Length of the line sources (from the northern driveway to the northern loading docks and from the southern driveway to the southern loading docks).
		Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		Emission factor: CARB EMFAC2021
On-Site Diesel Truck Idling	Point Source located at project driveways and at the loading docks at the project building	Stack release height: 3.5 m
		Stack release characteristics
		> Stack diameter: 0.1 meter (0.3 feet)
		> Stack velocity: 51.9 mps (170 feet/sec)
		> Stack temperature: 366 °k (200° F)
		Idle time: 15 minutes per truck per day
		Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		Emission factor: CARB EMFAC2021

Table 14
General Modeling Assumptions - AERMOD Model

Feature	Option Selected
Terrain processing	AERMAP - NED GEOTIFF 30 m
Emission source configuration	See Table 13
Regulatory dispersion options	Default
Land use	Urban
Coordinate system	UTM, Zone 11 north
Building downwash	Included in calculations
Receptor height	0 meters above ground (per OEHHA methodology)
Meteorological data	SCAQMD Perris Meteorological Data

Table 15
Carcinogenic Risks and Non-Carcinogenic 3rd Trimester Exposure Scenario (0.25-Year)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.00138	1.4E-06	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0003
2	0.00211	2.1E-06	1.00E+00	DPM	1.1E+00	0.03	5.0E+00	1.4E-03	0.0004
3	0.00312	3.1E-06	1.00E+00	DPM	1.1E+00	0.04	5.0E+00	1.4E-03	0.0006
4	0.0019	1.9E-06	1.00E+00	DPM	1.1E+00	0.03	5.0E+00	1.4E-03	0.0004
5	0.00058	5.8E-07	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0001
6	0.00038	3.8E-07	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0001

Notes:

OEHHA 95th percentile Exposure factors used to calculate TAC intake:

Exposure Frequency (days/year)	350
Exposure Duration (years)	0.25
Daily Breathing Rate	361
Age Sensitivity Factor	10
Fraction of Time At Home (FAH)	1
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	91.25

E= 10^, i.e. E-02 = 10^{-2}

Table 16
Carcinogenic Risks and Non-Carcinogenic Infant Exposure Scenario (2-Year)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.00138	1.4E-06	1.00E+00	DPM	1.1E+00	0.45	5.0E+00	1.4E-03	0.0003
2	0.00211	2.1E-06	1.00E+00	DPM	1.1E+00	0.69	5.0E+00	1.4E-03	0.0004
3	0.00312	3.1E-06	1.00E+00	DPM	1.1E+00	1.02	5.0E+00	1.4E-03	0.0006
4	0.0019	1.9E-06	1.00E+00	DPM	1.1E+00	0.62	5.0E+00	1.4E-03	0.0004
5	0.00058	5.8E-07	1.00E+00	DPM	1.1E+00	0.19	5.0E+00	1.4E-03	0.0001
6	0.00038	1.9E-04	1.00E+00	DPM	1.1E+00	0.12	5.0E+00	1.4E-03	0.0001

Notes:

OEHHA 95th percentile Exposure factors used to calculate TAC intake

Exposure Frequency (days/year)	350
Exposure Duration (years)	2
Daily Breathing Rate	1090
Age Sensitivity Factor	10
Fraction of Time At Home (FAH)	1
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	730

E= 10^, i.e. E-02 = 10^{-2}

Table 17
Carcinogenic Risks and Non-Carcinogenic Child Exposure Scenario (2-16 Years)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.00138	1.4E-06	1.00E+00	DPM	1.1E+00	0.50	5.0E+00	1.4E-03	0.0003
2	0.00211	2.1E-06	1.00E+00	DPM	1.1E+00	0.76	5.0E+00	1.4E-03	0.0004
3	0.00312	3.1E-06	1.00E+00	DPM	1.1E+00	1.13	5.0E+00	1.4E-03	0.0006
4	0.0019	1.9E-06	1.00E+00	DPM	1.1E+00	0.69	5.0E+00	1.4E-03	0.0004
5	0.00058	5.8E-07	1.00E+00	DPM	1.1E+00	0.21	5.0E+00	1.4E-03	0.0001
6	0.00038	3.8E-07	1.00E+00	DPM	1.1E+00	0.14	5.0E+00	1.4E-03	0.0001

Notes:

OEHHA 95th percentile Exposure factors used to calculate TAC intake

Exposure Frequency (days/year)	350
Exposure Duration (years)	14
Daily Breathing Rate	572
Age Sensitivity Factor	3
Fraction of Time At Home (FAH)	1
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	5110

E= 10^{X}, i.e. E-02 = 10^{-2}

Table 18
Carcinogenic Risks and Non-Carcinogenic Hazards Adult Exposure Scenario (16-30 Years)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.00138	1.4E-06	1.00E+00	DPM	1.1E+00	0.06	5.0E+00	1.4E-03	0.0003
2	0.00211	2.1E-06	1.00E+00	DPM	1.1E+00	0.08	5.0E+00	1.4E-03	0.0004
3	0.00312	3.1E-06	1.00E+00	DPM	1.1E+00	0.13	5.0E+00	1.4E-03	0.0006
4	0.0019	1.9E-06	1.00E+00	DPM	1.1E+00	0.08	5.0E+00	1.4E-03	0.0004
5	0.00058	5.8E-07	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0001
6	0.00038	3.8E-07	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0001

Notes:

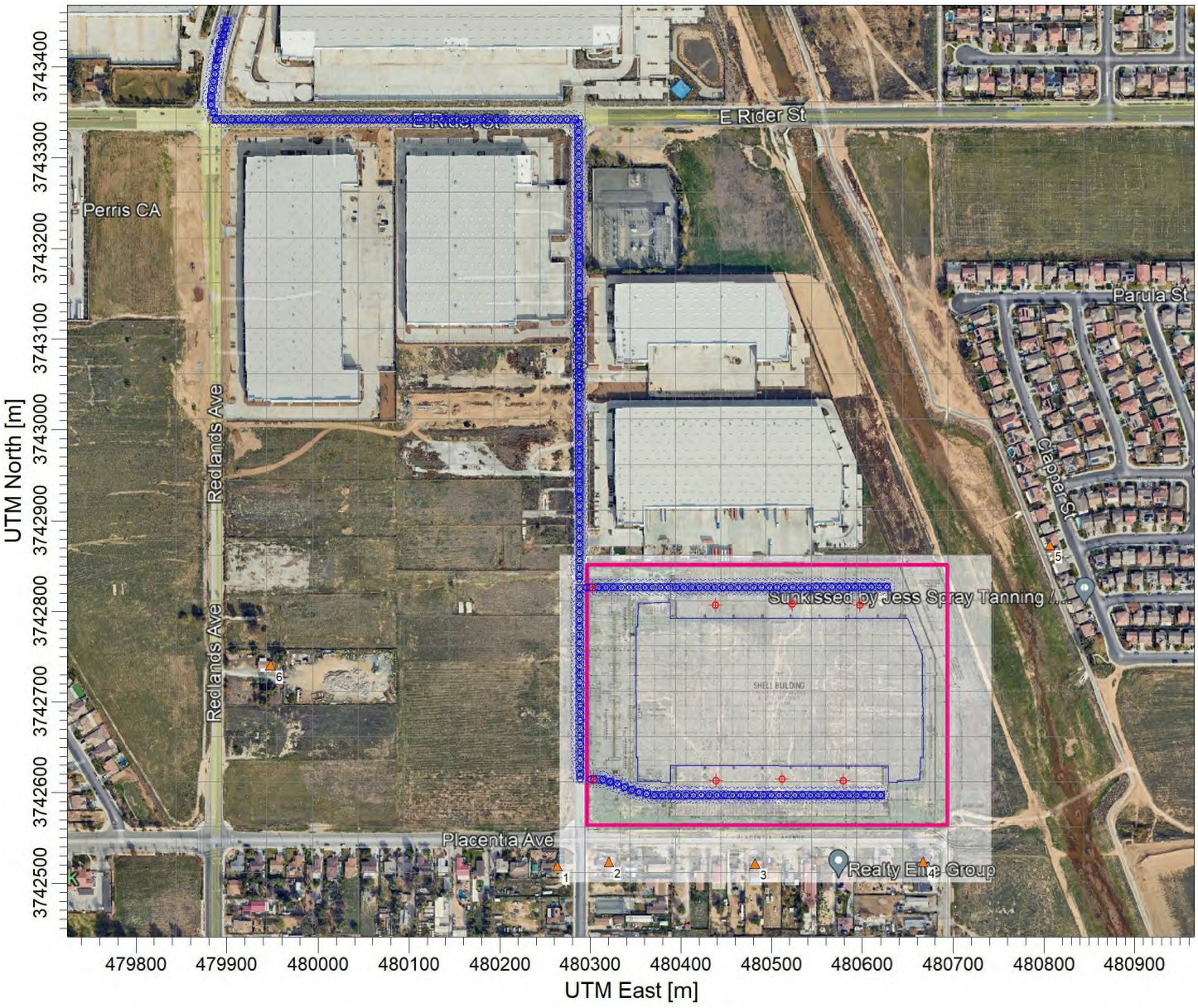
OEHHA 95th percentile Exposure factors used to calculate TAC intake

Exposure Frequency (days/year)	350
Exposure Duration (years)	14
Daily Breathing Rate	261
Age Sensitivity Factor	1
Fraction of Time At Home (FAH)	0.73
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	5110

E= 10^, i.e. E-02 = 10^{-2}

Table 19
Cumulative Carcinogenic Risk 30.25-Year Exposure Scenario

Receptor ID	Cumulative RISK (per million)
1	1.03
2	1.57
3	2.32
4	1.41
5	0.43
6	0.28



N

Legend

- Project Site Boundary
- On/Off Site Truck Travel
- Truck Idling Locations
- Discrete Receptors
- Cartesian Receptors

Figure 3
AERMOD Model Source and Receptor Placement

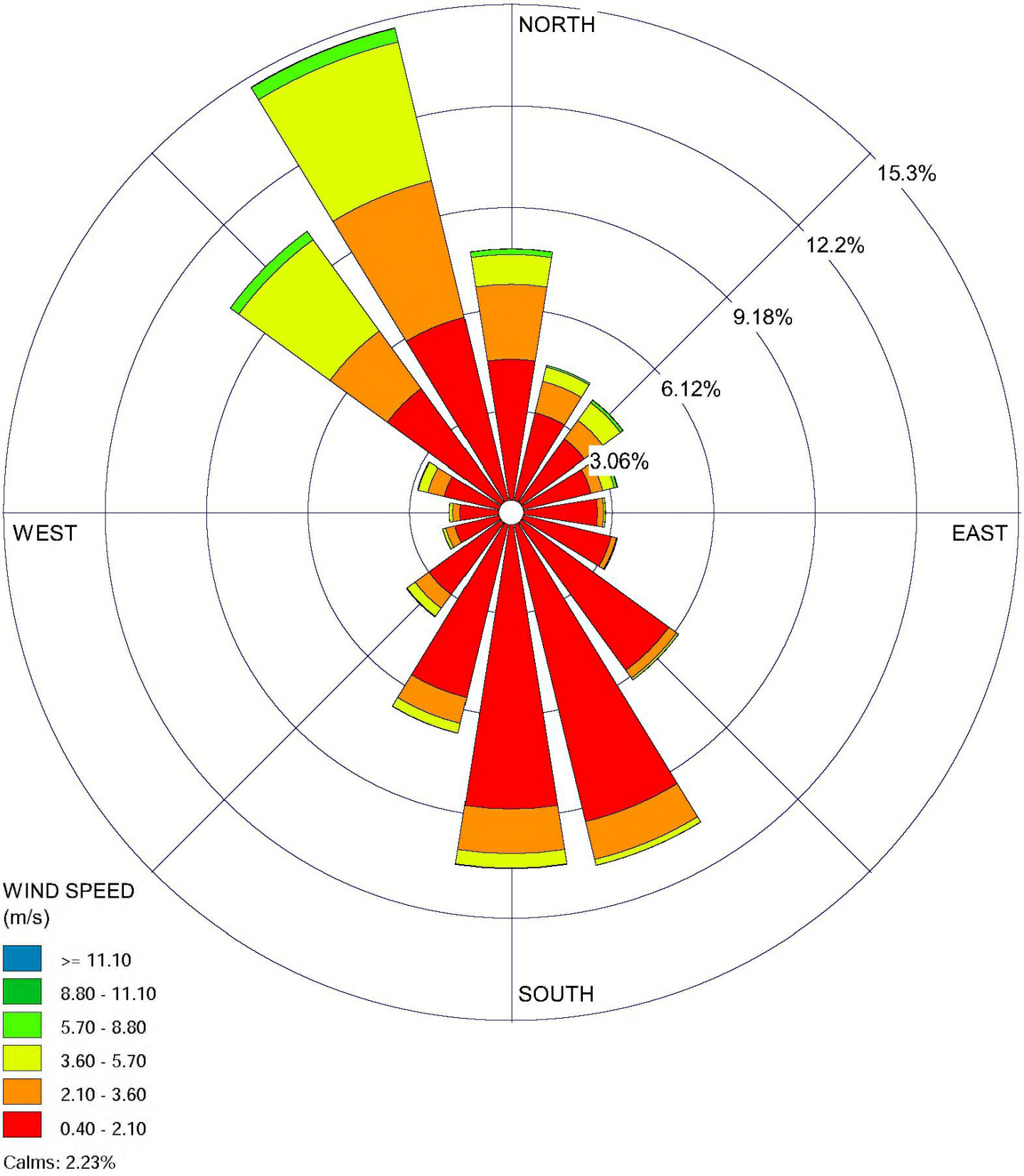
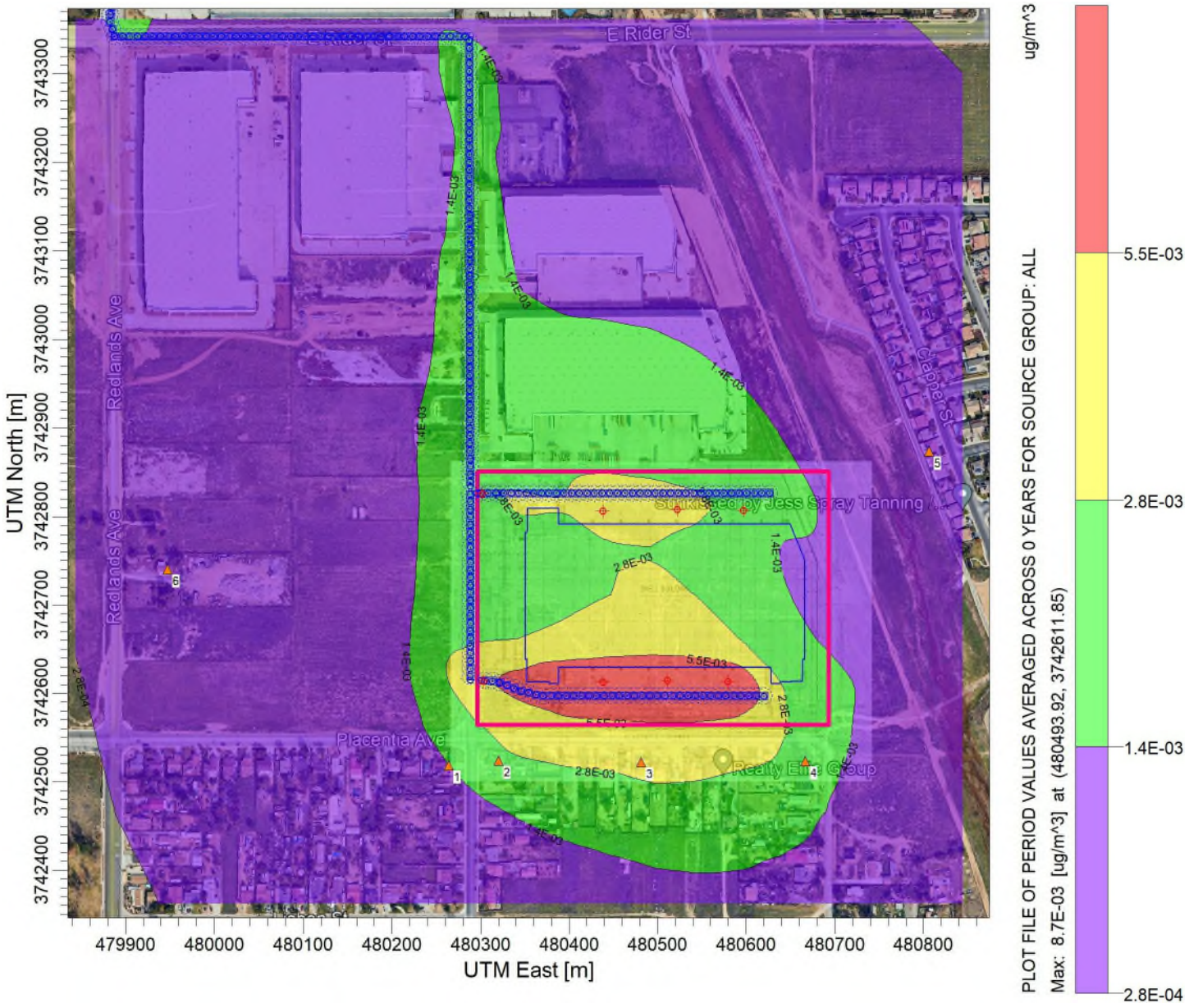


Figure 4
Windrose: Perris



N

Legend

Cancer Risk to Children (2-16) Years

- 2 in a million
- 1 in a million
- 0.5 in a million
- 0.1 in a million

Figure 5
Modeled Study Area Highest Cancer Risk from Annual DPM Emissions

4. GLOBAL CLIMATE CHANGE ANALYSIS

EXISTING GREENHOUSE GAS ENVIRONMENT

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NOx) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop". The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide (CO_2)

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s. Each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC Fifth Assessment Report, 2014) Emissions of CO_2 from fossil fuel combustion and industrial processes contributed about 78% of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the increase during the period 2000 to 2010. Globally, economic and population growth continued to be the most important drivers of increases in CO_2 emissions from fossil fuel combustion. The contribution of population growth between 2000 and 2010 remained roughly identical to the previous three decades, while the contribution of economic growth has risen sharply.

Methane (CH_4)

CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and Chlorofluorocarbons (CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide (N_2O)

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is also commonly used as an aerosol spray propellant, (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and in race cars).

Chlorofluorocarbons (CFC)

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons (HFC)

HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons (PFC)

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride (SF_6)

SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Global Warming Potential

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO_2). The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases. A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in Table 20. As shown in Table 20, the global warming potential of GHGs ranges from 1 to 22,800.

Table 20
Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime	Global Warming Potential[1] (100 Year Horizon)
Carbon Dioxide (CO_2)	–[2]	1
Methane (CH_4)	12	28-36
Nitrous Oxide (NO)	114	298
Hydrofluorocarbons (HFCs)	1-270	12-14,800
Perfluorocarbons (PFCs)	2,600-50,000	7,390-12,200
Nitrogen trifluoride (NF_3)	740	17,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Notes:

Source: http://www3.epa.gov/climatechange/ghgemissions/gases.html

(1) Compared to the same quantity of CO_2 emissions.

(2) Carbon dioxide's lifetime is poorly defined because the gas is not destroyed over time, but instead moves among different parts of the ocean–atmosphere–land system. Some of the excess carbon dioxide will be absorbed quickly (for example, by the ocean surface), but some will remain in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments.

GREENHOUSE GAS STANDARDS AND REGULATION

International

Montreal Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

The Paris Agreement

The Paris Agreement became effective on November 4, 2016. Thirty days after this date at least 55 Parties to the United Nations Framework Convention on Climate Change (Convention), accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions, had deposited their instruments of ratification, acceptance, approval or accession with the Depositary.

The Paris Agreement built upon the Convention and – for the first time – attempted to bring all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

Federal

The United States Environmental Protection Agency (EPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The EPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As

such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO_2 and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions will not themselves impose any requirements on industry or other entities. However, it is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by the EPA and Department of Transportation on September 15, 2009.

Clean Air Act

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), the U.S. Supreme Court held in April of 2007 that the EPA has statutory authority under Section 202 of the federal Clean Air Act (CAA) to regulate GHGs. The court did not hold that the EPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The EPA adopted a Final Endangerment Finding for the six defined GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) on December 7, 2009. The Endangerment Finding is required before EPA can regulate GHG emissions under Section 202(a)(1) of the CAA consistently with the United States Supreme Court decision. The EPA also adopted a Cause or Contribute Finding in which the EPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Energy Independence Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the EPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.[14]

Executive Order 13432

In response to the Massachusetts v. Environmental Protection Agency ruling, the President signed Executive Order 13432 on May 14, 2007, directing the EPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. Executive Order 13432 was codified into law by the 2009 Omnibus Appropriations Law signed on February 17, 2009. The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, sustainable buildings, electronics stewardship, fleets, and water conservation. Light-Duty Vehicle Greenhouse Gas and Corporate Average Fuel Economy Standards.

On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the United States auto industry. The adopted federal standard applies to passenger cars and light-duty trucks for model years 2012 through 2016. The rule surpasses the prior Corporate Average Fuel Economy standards (CAFE)[15] and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO2 per mile by model year 2016, based on USEPA calculation methods. These standards were formally adopted on April 1, 2010. In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[16] In 2017, the USEPA recommended no change to the GHG standards for light-duty vehicles for model years 2022-2025.

In December 2021, the EPA finalized federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026. The updated standards will result in avoiding more than 3 billion tons of GHG emissions through 2050. These standards set the light-duty vehicle GHG program on track to provide a strong launch point for the agency's next phase of standards for model year 2027 and beyond.[17] On April 12, 2023, EPA announced new, more ambitious proposed standards to further reduce harmful air pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027. The proposal builds upon EPA's final standards for federal greenhouse gas emissions standards for passenger cars and light trucks for model years 2023 through 2026 and leverages advances in clean car technology to unlock benefits to Americans ranging from reducing climate pollution, to improving public health, to saving drivers money through reduced fuel and maintenance costs. The proposed standards would phase in over model years 2027 through 2032.[18]

Issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and CO2 standards applicable in

[14] A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

[15] The Corporate Average Fuel Economy standards are regulations in the United States, first enacted by Congress in 1975, to improve the average fuel economy of cars and light trucks. The U.S Department of Transportation has delegated the National Highway Traffic Safety Administration as the regulatory agency for the Corporate Average Fuel Economy standards.

[16] United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, August 2012, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF.

[17] United States Environmental Protection Agency (EPA), Regulations for Emissions from Vehicles and Engines, Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026. https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions

[18] United States Environmental Protection Agency (EPA), Regulations for Emissions from Vehicles and Engines, Proposed Rule: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles. https://www.epa.gov/regulations-emissions-vehicles-and-engines/proposed-rule-multi-pollutant-emissions-standards-model

model year 2020 for model years 2021 through 2026. The estimated CAFE and CO2 standards for model year 2020 are 43.7 mpg and 204 grams of CO2 per mile for passenger cars and 31.3 mpg and 284 grams of CO2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. This Rule also excludes CO2- equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.[19]

On May 12, 2021, the National Highway Traffic Safety Administration (NHTSA) published a notice of proposed rulemaking in the Federal Register, proposing to repeal "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program," published Sept. 27, 2019 (SAFE I Rule), in which NHTSA codified regulatory text and made additional pronouncements regarding the preemption of state and local laws related to fuel economy standards. Specifically, this document proposed to fully repeal the regulatory text and appendices promulgated in the SAFE I Rule. In addition, this document proposed to repeal and withdraw the interpretative statements made by the Agency in the SAFE I Rule preamble, including those regarding the preemption of particular state Greenhouse Gas (GHG) Emissions standards or Zero Emissions Vehicle (ZEV) mandates. As such, this document proposed to establish a clean slate with respect to NHTSA's regulations and interpretations concerning preemption under the Energy Policy and Conservation Act (EPCA).[20] This action is effective as of January 28, 2022. [21]

State of California

California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards [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 (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2004, the CARB adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs (Title 13 California Code of Regulations [CCR], Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure generally does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks. While this measure primarily targets diesel particulate matter emissions, it has co-benefits of minimizing GHG emissions from unnecessary truck idling.

In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). CARB has also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. Refer to Section IV.B, *Air Quality*, of this Draft EIR for additional details

[19] National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf.

[20] https://www.federalregister.gov/documents/2021/05/12/2021-08758/corporate-average-fuel-economy-cafe-preemption

[21] https://www.federalregister.gov/documents/2021/05/12/2021-08758/corporate-average-fuel-economy-cafe-preemption

regarding these regulations. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies.

The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions, which are listed below.

Assembly Bill 1493

California Assembly Bill 1493 enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO_2 and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State's request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009. After adopting these initial greenhouse gas standards for passenger vehicles, CARB adopted continuing standards for future model years.

Executive Order S-3-05

The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Assembly Bill 32 (California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006)

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as CO2, CH4, N2O, HFCs, PFCs, and SF6 and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

Senate Bill 32 and Assembly Bill 197

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

Climate Change Scoping Plan (2008)

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code section 38561 (h)). CARB developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap. The initial Scoping Plan was approved in 2008, and contains a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was originally set at 427 $MMTCO_2e$ using the GWP values from the IPCC SAR. CARB also projected the state's 2020 GHG emissions under no-action-taken (NAT) conditions – that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 $MMTCO_2e$ (using GWP values from the IPCC SAR). Therefore, under the original projections, the state must reduce its 2020 NAT emissions by 28.4 percent in order to meet the 1990 target of 427 $MMTCO_2e$.

First Update to the Climate Change Scoping Plan (2014)

The First Update to the Scoping Plan was approved by CARB in May 2014 and builds upon the initial Scoping Plan with new strategies and recommendations. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 $MMTCO_2e$. CARB also updated the State's 2020 NAT emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 $MMTCO_2e$.

2017 Climate Change Scoping Plan

In response to the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan at a public meeting held in December 2017. The 2017 Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target of 40 percent below 1990 levels. The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The 2017 Scoping Plan considered the Scoping Plan Scenario and four alternatives for achieving the required GHG reductions but ultimately selected the Scoping Plan Scenario.

CARB states that the Scoping Plan Scenario "is the best choice to achieve the State's climate and clean air goals."[22] Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply at least 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. The alternatives were designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030. Implementing this Scoping Plan will ensure that California's climate actions continue to promote innovation, drive the generation of new jobs, and achieve continued reductions of smog and air toxics. The ambitious approach draws on a decade of successful programs that address the major sources of climate-changing gases in every sector of the economy:

[22] California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

- More Clean Cars and Trucks: The plan sets out far-reaching programs to incentivize the sale of millions of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight statewide.
- Increased Renewable Energy: California's electric utilities are ahead of schedule meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The Scoping Plan guides utilities to 50 percent renewables, as required under SB 350.
- Slashing Super-Pollutants: The plan calls for a significant cut in super-pollutants such as methane and HFC refrigerants, which are responsible for as much as 40 percent of global warming.
- Cleaner Industry and Electricity: California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.
- Cleaner Fuels: The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- Smart Community Planning: Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- Improved Agriculture and Forests: The Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

The 2017 Scoping Plan also evaluates reductions of smog-causing pollutants through California's climate programs.

2022 Climate Change Scoping Plan

CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality on November 16, 2022. The 2022 Scoping Plan lays out the sector-by-sector roadmap for California, the world's fifth largest economy, to achieve carbon neutrality by 2045 or earlier, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target. The Plan addresses recent legislation and direction from Governor Newsom and extends and expands upon earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The plan also takes the unprecedented step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Specifically, this plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of natural and working lands (NWL) to the state's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

SB 32, Pavley. California Global Warming Solutions Act of 2006

(1) The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state

board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective greenhouse gas emissions reductions. This bill would require the state board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030.

(2) This bill would become operative only if AB 197 of the 2015–16 Regular Session is enacted and becomes effective on or before January 1, 2017. AB 197 requires that the CARB, which directs implementation of emission-reduction programs, should target direct reductions at both stationary and mobile sources. AB 197 of the 2015-2016 Regular Session was approved on September 8, 2016.

Senate Bill 1368

Senate Bill 1368 (SB 1368) is the companion Bill of AB 32 and was adopted September, 2006. SB 1368 requires the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007, and for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas-fired plant. Furthermore, the legislation states that all electricity provided to the State, including imported electricity, must be generated by plants that meet the standards set by California Public Utilities Commission (CPUC) and California Energy Commission (CEC).

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs the CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard and began implementation on January 1, 2011. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to the CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009, the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010, and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation".
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). The CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. The CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by the CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018.

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. In addition, SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004, suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008, and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. CalEEMod modeling defaults to 2008 standards. 2013 Standards were approved and have been effective since July 1, 2014. 2016 Standards were adopted January 1, 2017. 2019 standards were published July 1, 2019 and became effective January 1, 2020. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards are estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings

require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

Per Section 100 Scope, the 2019 Title 24, Part 6 Building Code required healthcare facilities, such as assisted living facilities, hospitals, and nursing homes, to meet documentation requirements of Title 24, Part 1 Chapter 7 – Safety Standards for Health Facilities. A healthcare facility is defined as any building or portion thereof licensed pursuant to California Health and Safety Code Division 2, Chapter 1, Section 1204 or Chapter 2, Section 1250.

Section 120.1 Ventilation and Indoor Air Quality included both additions and revisions in the 2019 Code. This section now requires nonresidential and hotel/motel buildings to have air filtration systems that use forced air ducts to supply air to occupiable spaces to have air filters. Further, the air filter efficiency must be either MERV 13 or use a particle size efficiency rating specific in the Energy Code AND be equipped with air filters with a minimum 2-inch depth or minimum 1-inch depth if sized according to the equation 120.1-A. If natural ventilation is to be used the space must also use mechanical unless ventilation openings are either permanently open or controlled to stay open during occupied times. The 2019 version of the Code also completely revised the minimum ventilation requirements including DVC airflow rates within Section 120.1 Table 120.1–A. Table 120.1-A now includes air classification and recirculation limitations, these are based on either the number of occupants or the CFM/ft^2 (cubic feet per minute per square foot), whichever is greater.

Section 120.1 Ventilation and Indoor Air Quality also included additions for high-rise residential buildings. Requirements include that mechanical systems must provide air filters that and that air filters must be MERV 13 or use a particle size efficiency rating specified in the Energy Code. Window operation is no longer a method allowed to meet ventilation requirements, continuous operation of central forced air system handlers used in central fan integrated ventilation system is not a permissible method of providing the dwelling unit ventilation airflow, and central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow to each dwelling unit. In addition, requirements for kitchen range hoods were also provided in the updated Section 120.1.

Per Section 120.1(a) healthcare facilities must be ventilated in accordance with Chapter 4 of the California Mechanical Code and are NOT required to meet the ventilations requirements of Title 24, Part 6.

Section 140.4 Space Conditioning Systems included both additions and revisions within the 2019 Code. The changes provided new requirements for cooling tower efficiency, new chilled water-cooling system requirements, as well as new formulas for calculating allowed fan power. Section 140.4(n) also provide a new exception for mechanical system shut-offs for high-rise multifamily dwelling units, while Section 140.4(o) added new requirements for conditioned supply air being delivered to space with mechanical exhaust.

Section 120.6 Covered Processes added information in regards to adiabatic chiller requirements that included that all condenser fans for air-cooled converseness, evaporative-cooled condensers, adiabatic condensers, gas coolers, air or water fluid coolers or cooling towers must be continuously variable speed, with the speed of all fans serving a common condenser high side controlled in unison .Further, the mid-condensing setpoint must be 70 degrees Fahrenheit for all of the above mentioned systems.

New regulations were also adopted under Section 130.1 Indoor Lighting Controls. These included new exceptions being added for restrooms, the exception for classrooms being removed, as well as exceptions in regard to sunlight provided through skylights and overhangs.

Section 130.2 Outdoor Lighting Controls and Equipment added automatic scheduling controls which included that outdoor lighting power must be reduced by 50 to 90 percent, turn the lighting off during unoccupied times and have at least two scheduling options for each luminaire independent from each other and with a 2-hour override function. Furthermore, motion sensing controls must have the ability to reduce power within 15 minutes of area being vacant and be able to come back on again when occupied. An exception allows for lighting subject to a health or life safety statute, ordinance, or regulation may have a minimum time-out period

longer than 15 minutes or a minimum dimming level above 50% when necessary to comply with the applicable law.

The 2022 Building Energy Efficiency Standards became effective on January 1, 2023.[23] The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid. All buildings for which an application for a building permit is submitted on or after January 1, 2023 must follow the 2022 standards. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.
- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal systems, and grid integration equipment, such as demand-responsive controls to buoy grid stability.[24,25]

California Code of Regulations (CCR) Title 24, Part 11 (California Green Building Standards)

On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011.

2016 CALGreen Code: The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. During the 2016-2017 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle.

HCD also increased the required construction waste reduction from 50 percent to 65 percent of the total building site waste. This increase aids in meeting CalRecycle's statewide solid waste recycling goal of 75 percent for 2020 as stated in Chapter 476, Statutes of 2011 (AB 341). HCD adopted new regulations

[23] California Energy Commission (CEC). 2022. Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency.

[24] https://www.lightnowblog.com/2021/08/california-energy-commission-adopts-2022-building-energy-efficiency-standards/

[25] State of California Energy Commission. 2022 Building Energy Efficiency Standards Summary. https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf

requiring recycling areas for multifamily projects of five or more dwelling units. This regulation requires developers to provide readily accessible areas adequate in size to accommodate containers for depositing, storage and collection of non-hazardous materials (including organic waste) for recycling. This requirement assists businesses that were required as of April 1, 2016, to meet the requirements of Chapter 727, Statutes of 2014 (AB 1826).

HCD adopted new regulations to require information on photovoltaic systems and electric vehicle chargers to be included in operation and maintenance manuals. Currently, CALGreen section 4.410.1 Item 2(a) requires operation and maintenance instructions for equipment and appliances. Photovoltaic systems and electric vehicle chargers are systems that play an important role in many households in California, and their importance is increasing every day. HCD incorporated these two terms in the existing language in order to provide clarity to code users as to additional systems requiring operation and maintenance instructions.

HCD updated the reference to Clean Air Standards of the United States Environmental Protection Agency applicable to woodstoves and pellet stoves. HCD also adopted a new requirement for woodstoves and pellet stoves to have a permanent label indicating they are certified to meet the emission limits. This requirement provides clarity to the code user and is consistent with the United States Environmental Protection Agency's New Source Performance Standards. HCD updated the list of standards which can be used for verification of compliance for exterior grade composite wood products. This list now includes four standards from the Canadian Standards Association (CSA): CSA O121, CSA O151, CSA O153 and CSA O325. HCD updated heating and air-conditioning system design references to the ANSI/ACCA 2 Manual J, ANSI/ACCA 1 Manual D, and ANSI/ACCA 3 Manual S to the most recent versions approved by ANSI. HCD adopted a new elective measure for hot water recirculation systems for water conservation. The United States Department of Energy estimates that 3,600 to 12,000 gallons of water per year can be saved by the typical household (with four points of hot water use) if a hot water recirculation system is installed.

2019 CALGreen Code: During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle. The 2019 version of the California Green Building Standards became effective January 1, 2020.

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regard to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regard to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regard to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regard to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

The 2022 California Green Building Standards Code became effective on January 1, 2023.[26] In the 2022 Code, HCD amended Section 5.106.5.3 in regard to increasing the EV capable space percentages and adding a new requirement for installed Level 2 DCFC chargers. HCD under Section 5.106.5.4 added new regulation for electric vehicle charging readiness requirements for new construction of warehouse, grocery stores, and retail stores with planned off-street loading spaces. [27]

Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Executive Order B-29-15

Executive Order B-29-15, mandates a statewide 25 percent reduction in potable water usage. EO B-29-15 signed into law on April 1, 2015.

Executive Order B-37-16

Executive Order B-37-16, continuing the State's adopted water reductions, was signed into law on May 9, 2016. The water reductions build off the mandatory 25 percent reduction called for in EO B-29-15.

Executive Order N-79-20

Executive Order N-79-20 Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the

[26] California Building Standards Commission (CBSC). 2022. California Green Building Standards. Website: https://codes.iccsafe.org/content/CAGBC2022P1.

[27] https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes

California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

SBX1 2

Signed into law in April 2011, SBX1 2, requires one-third of the State's electricity to come from renewable sources. The legislation increases California's current 20 percent renewables portfolio standard target in 2010 to a 33 percent renewables portfolio standard by December 31, 2020.

Senate Bill 350

Signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions and ramp up the deployment of clean energy resources.

Governor Newsom's September 2022 Climate Legislation

On September 16, 2022, California enacted some of the nation's most aggressive climate measures in history as Governor Gavin Newsom signed a sweeping package of legislation to cut pollution, protect Californians from big polluters, and accelerate the state's transition to clean energy. The Governor partnered with legislative leaders to advance groundbreaking measures to achieve carbon neutrality no later than 2045 and 90 percent clean energy by 2035, establish new setback measures protecting communities from oil drilling, capture carbon pollution from the air, advance nature-based solutions, and more.

Over the next two decades, the California Climate Commitment will:

- Create 4 million new jobs
- Cut air pollution by 60 percent
- Reduce state oil consumption by 91 percent
- Save California $23 billion by avoiding the damages of pollution
- Reduce fossil fuel use in buildings and transportation by 92 percent
- Cut refinery pollution by 94 percent[28]

The following describes a few of the many bills signed in through the Governor's climate package.

Assembly Bill 1279:
Establishes a clear, legally binding, and achievable goal for California to achieve statewide carbon neutrality as soon as possible, and no later than 2045, and establishes an 85% emissions reduction target as part of that goal.

Senate Bill 1137:
Establishes a setback distance of 3,200 feet between any new oil well and homes, schools, parks or businesses open to the public. Ensures comprehensive pollution controls for existing oil wells within 3,200 feet of these facilities.

[28] https://www.gov.ca.gov/2022/09/16/governor-newsom-signs-sweeping-climate-measures-ushering-in-new-era-of-world-leading-climate-action/

Senate Bill 1020:
Creates clean electricity targets of 90 percent by 2035 and 95 percent by 2040 with the intent of advancing the state's trajectory to the existing 100 percent clean electricity retail sales by 2045 goal.

Senate Bill 905:
Establishes a clear regulatory framework for carbon removal and carbon capture, utilization and sequestration. Bans the practice of injecting carbon dioxide for the purpose of enhanced oil recovery.

Assembly Bill 1757:
Requires the state to develop an achievable carbon removal target for natural and working lands.

Energy Sector and CEQA Guidelines Appendix F

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2016 update to the Energy Efficiency Standards for Residential and Nonresidential Buildings focuses on several key areas to improve the energy efficiency of renovations and addition to existing buildings as well as newly constructed buildings and renovations and additions to existing buildings. The major efficiency improvements to the residential Standards involve improvements for attics, walls, water heating, and lighting, whereas the major efficiency improvements to the nonresidential Standards include alignment with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 national standards. Furthermore, the 2016 update required that enforcement agencies determine compliance with CCR, Title 24, Part 6 before issuing building permits for any construction.[29]

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."[30] As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the state. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2022 to include new mandatory measures for residential and nonresidential uses; the new measures took effect on January 1, 2023.

Regional – South Coast Air Quality Management District

The project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

SCAQMD Regulation XXVII, Climate Change

SCAQMD Regulation XXVII currently includes three rules:

[29] California Energy Commission, 2016 Building Energy Efficiency Standards, June 2015, http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf

[30] California Building Standards Commission, 2010 California Green Building Standards Code, (2010).

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

A variety of agencies have developed greenhouse gas emission thresholds and/or have made recommendations for how to identify a threshold. However, the thresholds for projects in the jurisdiction of the SCAQMD remain in flux. The California Air Pollution Control Officers Association explored a variety of threshold approaches but did not recommend one approach (2008). The ARB recommended approaches for setting interim significance thresholds (California Air Resources Board 2008b), in which a draft industrial project threshold suggests that non-transportation related emissions under 7,000 $MTCO_2e$ per year would be less than significant; however, the ARB has not approved those thresholds and has not published anything since then. The SCAQMD is in the process of developing thresholds, as discussed below.

SCAQMD Threshold Development

For GHG emissions and global warming, there is not, at this time, one established, universally agreed-upon "threshold of significance" by which to measure an impact. While the CARB published some draft thresholds in 2008, they were never adopted, and the CARB recommended that local air districts and lead agencies adopt their own thresholds for GHG impacts.

The SCAQMD has been evaluating GHG significance thresholds since April 2008. On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold of 10,000 $MTCO_2e$ for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold. However, the SCAQMD is not the lead agency for this project.

The SCAQMD has continued to consider adoption of significance thresholds for residential and general development projects. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG impacts from various uses ("SCAQMD draft local agency threshold"):

- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
  - All industrial projects: 10,000 $MTCO_2e$ per year. Option 1
    - Based on non-industrial land use type: residential: 3,500 $MTCO_2e$ per year; commercial: 1,400 $MTCO_2e$ per year; or mixed-use: 3,000 $MTCO_2e$ per year.
  - Option 2
    - All non-industrial land use types: 3,000 $MTCO_2e$ per year.

The thresholds identified above have not been adopted by the SCAQMD or distributed for widespread public review and comment and the working group tasked with developing the thresholds has not met since September 2010. The future schedule and likelihood of threshold adoption is uncertain. If the CARB adopts statewide significance thresholds, SCAQMD staff plan to report back to the SCAQMD Governing Board regarding any recommended changes or additions to the SCAQMD's interim threshold.

In the absence of other thresholds of significance promulgated by the SCAQMD, the City of Perris has been using the SCAQMD's 10,000 $MTCO_2e$ threshold for industrial projects and the draft thresholds for non-industrial projects the purpose of evaluating the GHG impacts associated with proposed general development

projects. Other lead agencies through the Basin have also been using these adopted and draft thresholds. The City's evaluation of impacts under the 10,000 $MTCO_2e$ per year threshold is also considered to be conservative since it is being applied to all of the GHG emissions generated by the project (i.e., area sources, energy sources, vehicular sources, solid waste sources, and water sources) whereas the SCAQMD's adopted 10,000 $MTCO_2e$ per year threshold applies only to the new stationary sources generated at industrial facilities.

SCAQMD Working Group

Since neither the CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 10,000 $MTCO_2e$ for industrial uses.

In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group and adopted Rules 2700, 2701, 2702, and 3002 which are described below.

SCAQMD Rules 2700 and 2701

The SCAQMD adopted Rules 2700 and 2701 on December 5, 2008, which establishes the administrative structure for a voluntary program designed to quantify GHG emission reductions. Rule 2700 establishes definitions for the various terms used in Regulation XXVII – Global Climate Change. Rule 2701 provides specific protocols for private parties to follow to generate certified GHG emission reductions for projects within the district. Approved protocols include forest projects, urban tree planting, and manure management. The SCAQMD is currently developing additional protocols for other reduction measures. For a GHG emission reduction project to qualify, it must be verified and certified by the SCAQMD Executive Officer, who has 60 days to approve or deny the Plan to reduce GHG emissions. Upon approval of the Plan, the Executive Officer issues required to issue a certified receipt of the GHG emission reductions within 90 days.

SCAQMD Rule 2702

The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a federal cap and trade program.

SCAQMD Rule 3002

The SCAQMD amended Rule 3002 on November 5, 2010 to include facilities that emit greater than 100,000 tons per year of CO_2e are required to apply for a Title V permit by July 1, 2011. A Title V permit is for facilities that are considered major sources of emissions.

Local – City of Perris

The City of Perris Climate Action Plan (CAP) was completed in February 2016. The CAP was developed to address global climate change through the reduction of harmful greenhouse gas emissions at the community level and as part of California's mandated statewide GHG reduction goal (AB 32). Through the CAP, the city has developed multiple sustainable strategies to directly benefit the community by decreasing carbon emissions while adapting to a changing climate. The programs and actions provided in the CAP were developed to help the city grow healthily, resourcefully, and sustainably.

SIGNIFICANCE THRESHOLDS

Appendix G of State CEQA Guidelines

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions[31].

Thresholds of Significance for this Project

To determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD screening threshold of 10,000 $MTCO_2e$ per year for industrial uses.

METHODOLOGY

The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. The following provides the methodology used to calculate the project-related GHG emissions and the project impacts.

CalEEMod Version 2022.1.1.22 was used to calculate the GHG emissions from the proposed project. The CalEEMod Output for year 2026 is available in Appendix B. Each source of GHG emissions is described in greater detail below.

Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. No changes were made to the default area source emissions.

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips from the TIA into the CalEEMod Model. The program then applies the emission factors for each trip which is provided by the EMFAC2021 model to determine the vehicular traffic pollutant emissions. See Section 2 for details.

[31] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Waste

Waste includes the GHG emissions generated from the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. No changes were made to the default waste parameters.

Water

Water includes the water used for the interior of the building as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. No changes were made to the default water usage parameters.

Construction

The construction-related GHG emissions were also included in the analysis and were based on a 30-year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The construction-related GHG emissions were calculated by CalEEMod and in the manner detailed above in Section 2.

PROJECT GREENHOUSE GAS EMISSIONS

The GHG emissions have been calculated based on the parameters described above. A summary of the results is shown below in Table 21 and the CalEEMod Model run for the proposed project is provided in Appendix B. Table 21 shows that the total for the proposed project's emissions (without credit for any reductions from sustainable design and/or regulatory requirements) would be 6,217.83 $MTCO_2e$ per year. According to the thresholds of significance established above, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations of the proposed project would exceed the SCAQMD threshold of 10,000 $MTCO_2e$ per year for industrial uses. Therefore, operation of the proposed project would not create a significant cumulative impact to global climate change. No mitigation is required.

Table 21
Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Maximum Annual Operations	90.90	5,731.00	5,822.00	9.42	0.41	6,186.00
Construction[1]	0.00	31.30	31.30	0.00	0.00	31.83
Total Emissions	90.90	5,762.30	5,853.30	9.42	0.41	6,217.83
SCAQMD draft screening threshold for industrial uses						10,000
Exceeds Threshold?						No

Notes:

Source: CalEEMod Version 2022.1.1.22 for Opening Year 2026.

(1) Construction GHG emissions CO2e based on a 30 year amortization rate.

CONSISTENCY WITH APPLICABLE GREENHOUSE GAS REDUCTION PLANS AND POLICIES

The proposed project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. As stated previously, the City of Perris has a Climate Action Plan; therefore, the project and its GHG emissions have been compared to the goals of the City of Perris CAP.

SB-32

As stated previously, the SCAQMD's tier 3 thresholds used Executive Order S-3-05 goal as the basis for deriving the screening level. The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which was phased in starting in 2012. Therefore, as the project's emissions meet the SCAQMD threshold of 10,000 $MTCO_2e$ per year for all land use types (in compliance with Executive Order S-3-05), the project's emissions also comply with the goals of AB 32. Additionally, as the project meets the current interim emissions targets/thresholds established by the SCAQMD, the project would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 mandated by SB-32. Furthermore, the majority of the post 2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the project will be required to comply with these regulations as they come into effect.

At a level of 6,217.83 $MTCO_2e$ per year, the project's GHG emissions do not exceed the SCAQMD threshold of 10,000 $MTCO_2e$ per year for industrial uses and would be in compliance with the reduction goals of the City of Perris' CAP, AB-32 and SB-32. Furthermore, the project will comply with applicable Green Building Standards and City of Perris' policies regarding sustainability (as dictated by the City's General Plan and CAP). Impacts are considered to be less than significant.

CUMULATIVE GREENHOUSE GAS IMPACTS

Although the project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. Therefore, in the case of global climate change, the proximity of the project to other GHG emission generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[32] The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change.

In 2006, under Assembly Bill 32, the state mandated a goal of reducing statewide emissions to 1990 levels by 2020 . In November of 2022, the CARB released the 2022 Scoping Plan. The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below

[32] Source: California Air Pollution Control Officers Association, CEQA & Climate change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, (2008).

1990 levels no later than 2045, as directed by Assembly Bill 1279. In order to achieve these goals, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. Consistent with CEQA Guidelines Section 15064h(3),[33] the City, as lead agency, has determined that the project's contribution to cumulative GHG emissions and global climate change would be less than significant if the project is consistent with the applicable regulatory plans and policies to reduce GHG emissions.

As discussed in the Consistency With Applicable Greenhouse Gas Reduction Plans and Policies section above, the project is consistent with the goals and objectives of the City of Perris CAP.

Thus, given the project's consistency with the City's CAP and SCAQMD's 10,000 $MTCO_2e$ per year threshold for industrial uses, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Given this consistency, it is concluded that the project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable.

[33] The State CEQA Guidelines were amended in response to SB 97. In particular, the State CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction program renders a cumulative impact insignificant. Per State CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions."

5. ENERGY ANALYSIS

EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the project area and region.

Overview

California's estimated annual energy use as of 2022 included:

- Approximately 287,220 gigawatt hours of electricity;[34]
- Approximately 2,056,267 million cubic feet of natural gas per year;[35] and
- Approximately 23.2 billion gallons of transportation fuel (for the year 2015).[36]

As of 2021, the year of most recent data currently available by the United States Energy Information Administration (EIA), energy use in California by demand sector was:

- Approximately 41.2 percent transportation;
- Approximately 23.6 percent industrial;
- Approximately 18.2 percent residential; and
- Approximately 17.1 percent commercial.[37]

California's electricity in-state generation system generates approximately 203,257 gigawatt-hours each year. In 2022, California produced approximately 71 percent of the electricity it uses; the rest was imported from the Pacific Northwest (approximately 12 percent) and the U.S. Southwest (approximately 17 percent). Natural gas is the main source for electricity generation at approximately 47.46 percent of the total in-state electric generation system power as shown in Table 22.

A summary of and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

- In 2022, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2022, the state ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states.
- In 2020, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all but three other states.
- In 2022, renewable resources, including hydroelectric power and small-scale, customer-sited solar power, accounted for 49% of California's in-state electricity generation. Natural gas fueled another 42%. Nuclear power supplied almost all the rest.

[34] California Energy Commission. Energy Almanac. Total Electric Generation. [Online] 2022. 2022 Total System Electric Generation (ca.gov).

[35] Natural Gas Consumption by End Use. U.S. Energy Information Administration. [Online] 2022. https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm.

[36] California Energy Commission. Revised Transportation Energy Demand Forecast 2018-2030. [Online] 2021. https://www.energy.ca.gov/data-reports/planning-and-forecasting

[37] U.S. Energy Information Administration. California Energy Consumption by End-Use Sector, 2021. California State Profile Overview.[Online] January 8, 2023 https://www.eia.gov/state/?sid=CA#tabs-2

- In 2022, California was the fourth-largest electricity producer in the nation. The state was also the nation's third-largest electricity consumer, and additional needed electricity supplies came from out-of-state generators.[38]

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the proposed project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and natural gas for building uses, and transportation fuel for vehicle trips associated with the proposed project.

Electricity

Electricity would be provided to the project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons, within a service area encompassing approximately 50,000 square miles.[39] SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.[40]

Table 23 identifies SCE's specific proportional shares of electricity sources in 2022. As shown in Table 23, the 2022 SCE Power Mix has renewable energy at 33.2 percent of the overall energy resources, of which biomass and waste is at 0.1 percent, geothermal is at 5.7 percent, eligible hydroelectric is at 0.5 percent, solar energy is at 17 percent, and wind power is at 9.8 percent; other energy sources include large hydroelectric at 3.4 percent, natural gas at 24.7 percent, nuclear at 8.3 percent, other at 0.1 percent, and unspecified sources of power at 30.3 percent.

Natural Gas

Natural gas would be provided to the project by Southern California Gas (SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

The CPUC regulates natural gas utility service for approximately 11 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller investor-owned natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

The CPUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing.

[38] State Profile Overview. [Online] [Cited: April 20, 2023.] https://www.eia.gov/state/?sid=CA#tabs-2

[39] https://www.sce.com/about-us/who-we-are/leadership/our-service-territory

[40] California Energy Commission. Utility Energy Supply plans from 2015. https://www.energy.ca.gov/almanac/electricity_data/supply_forms.html

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, for example, California utility customers received 38% of their natural gas supply from basins located in the U.S. Southwest, 27% from Canada, 27% from the U.S. Rocky Mountain area, and 8% from production located in California."[41]

Transportation Energy Resources

The project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the project patrons and employees via commercial outlets.

The most recent data available shows the transportation sector emits 38 percent of the total greenhouse gases in the state and about 84 percent of smog-forming oxides of nitrogen (NOx).[42,43] About 27 percent of total United States energy consumption in 2022 was for transporting people and goods from one place to another. In 2022, petroleum comprised about 90 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels.[44] In 2022, about 135.06 billion gallons (or about 3.22 billion barrels) of finished motor gasoline were consumed in the United States, an average of about 370 million gallons (or about 8.81 million barrels) per day.[45]

Regulatory Background

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

Federal Regulations

Corporate Average Fuel Economy (CAFE) Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[46]

Issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and CO2 standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO2 standards for model year 2020 are 43.7 mpg and 204 grams of CO2 per mile for passenger cars and 31.3 mpg and 284 grams of CO2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. This Rule also excludes CO2- equivalent emission improvements

[41] California Public Utilities Commission. Natural Gas and California. http://www.cpuc.ca.gov/natural_gas/
[42] CARB. California Greenhouse Gas Emissions Inventory – 2022 Edition. https://www.arb.ca.gov/cc/inventory/data/data.htm
[43] CARB. 2016 SIP Emission Projection Data. https://www.arb.ca.gov/app/emsinv/2017/emseic1_query.php?F_DIV=-4&F_YR=2012&F_SEASON=A&SP=SIP105ADJ&F_AREA=CA
[44] US Energy Information Administration. Use of Energy in the United States Explained: Energy Use for Transportation. https://www.eia.gov/energyexplained/?page=us_energy_transportation
[45] https://www.eia.gov/tools/faqs/faq.php?id=23&t=10
[46] https://www.nhtsa.gov/lawsregulations/corporate-average-fuel-economy.

associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.[47]

On May 12, 2021, the National Highway Traffic Safety Administration (NHTSA) published a notice of proposed rulemaking in the Federal Register, proposing to repeal "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program," published Sept. 27, 2019 (SAFE I Rule), in which NHTSA codified regulatory text and made additional pronouncements regarding the preemption of state and local laws related to fuel economy standards. Specifically, this document proposed to fully repeal the regulatory text and appendices promulgated in the SAFE I Rule. In addition, this document proposed to repeal and withdraw the interpretative statements made by the Agency in the SAFE I Rule preamble, including those regarding the preemption of particular state Greenhouse Gas (GHG) Emissions standards or Zero Emissions Vehicle (ZEV) mandates. As such, this document proposed to establish a clean slate with respect to NHTSA's regulations and interpretations concerning preemption under the Energy Policy and Conservation Act (EPCA). This action is effective as of January 28, 2022. [48]

Intermodal Surface transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

The Transportation Equity Act of the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State Regulations

Integrated Energy Policy Report (IEPR)

Senate Bill 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

[47] National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf.

[48] https://www.federalregister.gov/documents/2021/05/12/2021-08758/corporate-average-fuel-economy-cafe-preemption

The 2022 Integrated Energy Policy Report (2022 IEPR) was adopted in February 28, 2023. The 2022 IEPR provides updates on a variety of energy issues facing California. These issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. The 2022 IEPR also discusses the California Energy Commission's equity and environmental justice efforts, its development of a more easily navigable online data platform via the California Energy Planning Library, and an update to the California Energy Demand Forecast. The report also provides information on emerging topics related to energy reliability, western electricity integration, hydrogen, gasoline prices, gas transition, and distributed energy resources.[49]

The 2023 Integrated Energy Policy Report (2023 IEPR) was completed in January 2024. The 2023 IEPR discusses speeding connection of clean resources to the electricity grid, the potential use of clean and renewable hydrogen, and the California Energy Demand Forecast to 2040. The report also provides updates on topics such as gas decarbonization, energy efficiency, the Clean Transportation Program, Assembly Bill 1257 (Bocanegra, Chapter 749, Statutes of 2013), and publicly owned utilities' progress toward peak demand reserves and margins.[50]

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

California Building Standards Code (Title 24)

The California Building Standards Code Title 24 was previously discussed in Section 4 of this report.

California Building Energy Efficiency Standards (Title 24, Part 6)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2022 Title 24 standards, which became effective on January 1, 2023[51] and build upon the 2019 Standards. The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.

[49] California Energy Commission. Final 2022 Integrated Energy Policy Report. February 2023. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2022-integrated-energy-policy-report-update

[50] California Energy Commission. Final 2023 Integrated Energy Policy Report. January 2024. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2023-integrated-energy-policy-report

[51] California Energy Commission (CEC). 2022. Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency.

- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal.

California Building Energy Efficiency Standards (Title 24, Part 11)

The 2019 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2020. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.

As previously discussed in Section 4 of this report, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle. HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regard to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regard to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regard to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regard to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

The 2022 California Green Building Standards Code became effective on January 1, 2023[52] and builds upon the 2019 Standards.

HCD amended Section 5.106.5.3 in regard to increasing the EV capable space percentages and adding a new requirement for installed Level 2 DCFC chargers.

HCD under Section 5.106.5.4 added new regulation for electric vehicle charging readiness requirements for new construction of warehouse, grocery stores, and retail stores with planned off-street loading spaces. [53]

Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 350

As previously discussed in Section 4 of this report, Senate Bill 350 (SB 350) was signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions and ramp up the deployment of clean energy resources.

Assembly Bill 32

As discussed in Section 4 of this report, in 2006 the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable

[52] California Building Standards Commission (CBSC). 2022. California Green Building Standards. Website: https://codes.iccsafe.org/content/CAGBC2022P1.

[53] https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes

statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective. Please see Section 4 for further detail on AB 32.

Assembly Bill 1493/Pavley Regulations

As discussed in Section 4 of this report, California Assembly Bill 1493 enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO_2 and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State's request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009.

Executive Order S-1-07/Low Carbon Fuel Standard

As discussed in Section 4 of this report, Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

California Air Resources Board

CARB's Advanced Clean Cars Program

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions control program was approved by CARB in 2012. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.15 The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery

electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[54]

In addition, the Advanced Clean Cars II was effective as of November 30, 2022. This regulation takes the state's already growing zero-emission vehicle market and robust motor vehicle emission control rules and augments them to meet more aggressive tailpipe emissions standards and ramp up to 100 percent zero-emission vehicles. The Advanced Clean Cars II regulations will rapidly scale down light-duty passenger car, pickup truck and SUV emissions starting with the 2026 model year through 2035. The regulations are two-pronged. First, it amends the Zero-emission Vehicle Regulation to require an increasing number of zero-emission vehicles, and relies on currently available advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric and plug-in hybrid electric-vehicles, to meet air quality and climate change emissions standards. These amendments support Governor Newsom's 2020 Executive Order N-79-20 that requires all new passenger vehicles sold in California to be zero emissions by 2035. Second, the Low-emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions. In October 2023, CARB staff launched a new effort to consider potential amendments to the Advanced Clean Cars II regulations, including updates to the tailpipe greenhouse gas emission standard and limited revisions to the Low-emission Vehicle and Zero-emission Vehicle regulations.[55]

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to DPM and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and other Criteria Pollutants, form In-Use Heavy-Duty Diesel-Fueled Vehicles

The Regulation to Reduce Emissions of DPM, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, California Code of Regulations, Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of DPM, oxides of nitrogen (NOX) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The newer emission-controlled models would use petroleum-based fuel in a more efficient manner.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375 (SB 375), coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32.

As previously stated in Section 4 of this report, Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected

[54] California Air Resources Board, California's Advanced Clean Cars Program, January 18, 2017. www.arb.ca.gov/msprog/acc/acc.htm.

[55] California Air Resources Board, Advanced Clean Cars II. https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii

region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018.

PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

Evaluation Criteria

In compliance with Appendix G of the State CEQA Guidelines, this report analyzes the project's anticipated energy use to determine if the project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

Methodology

Information from the CalEEMod 2022.1.1.222 Output contained in Appendix B, utilized for air quality and greenhouse gas analyses in Sections 2 and 4 of this report, were also utilized for this analysis. The CalEEMod outputs detail project related construction equipment, transportation energy demands, and facility energy demands.

Construction Energy Demands

The construction of the project is anticipated to occur no sooner than the beginning spring 2025, taking approximately 12 months, and be completed in one phase. Staging of construction vehicles and equipment will occur on-site. The approximately twelve-month schedule is relatively short and the project site is approximately 27.25 acres.

Construction Equipment Electricity Usage Estimates

As stated previously, Electrical service will be provided by Southern California Edison. The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed project. Based on the 2021 National Construction Estimator, Richard Pray (2021)[56], the typical power cost per 1,000 square feet of building construction per month is estimated to be $2.37. The project plans to develop the site with a 578,265 square foot high-cube fulfillment center warehouse building. Based on Table 24, the total power cost of the on-site

[56] Pray, Richard. 2021 National Construction Estimator. Carlsbad: Craftsman Book Company, 2021.

electricity usage during the construction of the proposed project is estimated to be approximately $16,445.86. As shown in Table 24, the total electricity usage from project construction related activities is estimated to be approximately 109,057 kWh.[57]

Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of project construction. Fuel consumed by construction equipment was evaluated with the following assumptions:

- Construction schedule of 12 months
- All construction equipment was assumed to run on diesel fuel
- Typical daily use of 8 hours, with some equipment operating from ~6-7 hours
- Aggregate fuel consumption rate for all equipment was estimated at 18.5 hp-hr/gallon (from CARB's 2017 Emissions Factors Tables and fuel consumption rate factors as shown in Table D-21 of the Moyer Guidelines: (https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf).
- Diesel fuel would be the responsibility of the equipment operators/contractors and would be sources within the region.
- Project construction represents a "single-event" for diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources during long term operation.

Using the CalEEMod data input for the air quality and greenhouse gas analyses (Sections 2 and 4 of this report), the project's construction phase would consume electricity and fossil fuels as a single energy demand, that is, once construction is completed their use would cease. CARB's 2017 Emissions Factors Tables show that on average, aggregate fuel consumption (gasoline and diesel fuel) would be approximately 18.5 hp-hr-gal. Table 25 shows the results of the analysis of construction equipment.

As presented in Table 25, project construction activities would consume an estimated 51,693 gallons of diesel fuel. As stated previously, project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

Construction Worker Fuel Estimates

It is assumed that construction worker trips are from light duty autos (LDA), light duty truck 1 (LDT1), and light duty truck 2 (LDT2) at a mix of 25 percent/50 percent/25 percent, respectively, along area roadways.[58] With respect to estimated VMT, the construction worker trips would generate an estimated 1,058,759 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.22 model defaults.

Vehicle fuel efficiencies for construction workers were estimated in the air quality and greenhouse gas analyses (Sections 2 and 4 of this report) using information generated using CARB's 2021 EMFAC model (see Appendix B for details). An aggregate fuel efficiency of 26.59 miles per gallon (mpg) was used to calculate vehicle miles traveled for construction worker trips. Table 26 shows that an estimated 39,825 gallons of fuel would be consumed for construction worker trips.

[57] Assumes the project will be under the GS-1 General Service noon-demand rate under SCE. Rate is from the effective date as of March 1, 2024 from: https://www.sce.com/regulatory/tariff-books/rates-pricing-choices

[58] CalEEMod User's Guide Appendix C (April 2022) states that construction work trips are made by a fleet consisting of 25 percent light-duty auto (or passenger car), 50 percent light-duty truck type 1 (LDT1), and 25 percent light duty truck type 2 (LDT2).

Construction Vendor/Hauling Fuel Estimates

Tables 27 and 28 show the estimated fuel consumption for vendor and hauling during building construction. With respect to estimated VMT, the vendor and hauling trips would generate an estimated 215,632 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.22 model defaults.

For the architectural coatings it is assumed that the contractors would be responsible for bringing coatings and equipment with them in their light duty vehicles. Therefore, vendors delivering construction material or hauling debris from the site during building construction would use medium to heavy duty vehicles with an average fuel consumption of 7.87 mpg for medium heavy-duty trucks and 6.15 mpg for heavy heavy-duty trucks (see Appendix B for details). [59] Tables 27 and 28 show that an estimated 30,761 gallons of fuel would be consumed for vendor and hauling trips.

Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately twelve-month construction phase would conform to CARB regulations and California emissions standards and is evidence of related fuel efficiencies. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in the construction of the project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs. Compliance with these measures would result in a more efficient use of construction-related energy and would minimize or eliminate wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, as required by California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby minimizing or eliminating unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Operational Energy Demands

Energy consumption in support of or related to project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Transportation Fuel Consumption

Using the CalEEMod output from the air quality and greenhouse gas analyses (Sections 2 and 4 of this report), it is assumed that an average trip for autos and light trucks was assumed to be 23.5 miles and 2, 3 and 4-axle trucks were assumed to travel an average of 40 miles.[60] As the project includes the development of the site

[59] CalEEMod User's Guide Appendix C (April 2022) states that vendor trips are made by a fleet consisting of 50 percent medium trucks (MHDT) and 50 percent heavy trucks (HHDT) and that hauling and onsite truck trips are made by a fleet consisting of 100 percent HHDT.

[60] CalEEMod default distance for H-W (home-work) is 23.5 miles; 40 miles for W-O (work-other) (with truck trips changed to 40 miles per SCAQMD recommendations).

with industrial warehouse uses; therefore, in order to present a worst-case scenario, it was assumed that vehicles would operate 365 days per year. Table 29 shows the estimated annual fuel consumption for all classes of vehicles from autos to heavy-heavy trucks.[61]

The proposed project would generate 1,047 trips per day. The vehicle fleet mix was used from the CalEEMod output. Table 29 shows that an estimated 539,880 gallons of fuel would be consumed per year for the operation of the proposed project.

Trip generation and VMT generated by the proposed project are consistent with other similar industrial uses of similar scale and configuration as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). That is, the proposed project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. Furthermore, the state of California consumed approximately 3.1 billion gallons of diesel and 13.6 billion gallons of gasoline in 2022.[62,63] Therefore, the increase in fuel consumption from the proposed project is insignificant in comparison to the State's demand. Therefore, project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Facility Energy Demands (Electricity and Natural Gas)

Building operation and site maintenance (including landscape maintenance) would result in the consumption of electricity (provided by Southern California Edison) and natural gas (provided by Southern California Gas Company). The annual natural gas and electricity demands were provided per the CalEEMod output from the air quality and greenhouse gas analyses (Sections 2 and 4 of this report) and are provided in Table 30.

As shown in Table 30, the estimated electricity demand for the proposed project is approximately 3,015,163 kWh per year. In 2022, the non-residential sector of the County of Riverside consumed approximately 8,720 million kWh of electricity.[64] In addition, the estimated natural gas consumption for the proposed project is approximately 11,040,340 kBTU per year. In 2022, the non-residential sector of the County of Riverside consumed approximately 147 million therms of gas.[65,66] Therefore, the increase in both electricity and natural gas demand from the proposed project is insignificant compared to the County's 2022 non-residential sector demand.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or "plug-in" energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.). The proposed project would be required to comply with Title 24 standards.

Furthermore, the proposed project energy demands in total would be comparable to other non-residential projects of similar scale and configuration. Therefore, the project facilities' energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

[61] Average fuel economy based on aggregate mileage calculated in EMFAC 2021 for opening year (2026). See Appendix B for EMFAC output.

[62] https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics

[63] https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics and https://www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm

[64] California Energy Commission, Electricity Consumption by County. https://ecdms.energy.ca.gov/elecbycounty.aspx

[65] California Energy Commission, Gas Consumption by County. http://ecdms.energy.ca.gov/gasbycounty.aspx

[66] 1 therm = ~100,043.06 BTU and 1 kBTU = 1,000 BTU.

Renewable Energy and Energy Efficiency Plan Consistency

Regarding federal transportation regulations, the project site is located in an already developed area. Access to/from the project site is from existing roads. These roads are already in place so the project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be proposed pursuant to the ISTEA because SCAG is not planning for intermodal facilities in the project area.

Regarding the State's Energy Plan and compliance with Title 24 CCR energy efficiency standards, the applicant is required to comply with the California Green Building Standard Code requirements for energy efficient buildings and appliances as well as utility energy efficiency programs implemented by Southern California Edison and Southern California Gas Company.

Regarding Pavley (AB 1493) regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources. However, the vehicles associated with the proposed project would be required to comply with federal and state fuel efficiency standards.

Regarding the State's Renewable Energy Portfolio Standards, the project would be required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CALGreen). CALGreen Standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

As shown in Section 4 above, the proposed project would be consistent with the applicable strategies of the City of Perris CAP.

Conclusions

As supported by the preceding analyses, project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. The proposed project does not include any unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities and is industrial project that is not proposing any additional features that would require a larger energy demand than other industrial projects of similar scale and configuration. The energy demands of the project are anticipated to be accommodated within the context of available resources and energy delivery systems. The project would therefore not cause or result in the need for additional energy producing or transmission facilities. The project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Notwithstanding, the project proposes industrial warehouse uses and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

Table 22
Total Electricity System Power (California 2022)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	273	0.13%	181	5,716	5,897	6,170	2.15%
Natural Gas	96,457	47.46%	44	7,994	8,038	104,495	36.38%
Oil	65	0.03%	-	-	-	65	0.02%
Other (Waste Heat/Petroleum Coke)	315	0.15%	-	-	-	315	0.11%
Unspecified Sources of Power	-	0.00%	12,485	7,943	20,428	20,428	7.11%
Total Thermal and Unspecified	97,110	47.78%	12,710	21,653	34,363	121,473	45.77%
Nuclear	17,627	8.67%	397	8342	8739	26,366	9.18%
Large Hydro	14,607	7.19%	10,803	1,118	11,921	26,528	9.24%
Biomass	5,366	2.64%	771	25	797	6,162	2.15%
Geothermal	11,110	5.47%	253	2,048	2,301	13,412	4.67%
Small Hydro	3,005	1.48%	211	13	225	3,230	1.12%
Solar	40,494	19.92%	231	8,225	8,456	48,950	17.04%
Wind	13,938	6.86%	8,804	8,357	17,161	31,099	10.83%
Total Non-GHG and Renewables	106,147	52.22%	21,471	28,129	49,599	155,747	54.23%
Total Energy	203,257	100%	34,180	49,782	83,962	287,220	100%

Notes:

(1) Source: California Energy Commission. 2022 Total System Electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2022-total-system-electric-generation

Table 23
SCE 2022 Power Content Mix

Energy Resources	2022 SCE Power Mix
Eligible Renewable	33.2%
Biomass & Biowaste	*0.1%*
Geothermal	*5.7%*
Eligible Hydroelectric	*0.5%*
Solar	*17.0%*
Wind	*9.8%*
Coal	0.0%
Large Hydroelectric	3.4%
Natural Gas	24.7%
Nuclear	8.3%
Other	0.1%
Unspecified Sources of power*	30.3%
Total	100%

Notes:

(1) https://www.sce.com/sites/default/files/custom-files/PDF_Files/SCE_2022_Power_Content_Label_B%26W.pdf

* Unspecified sources of power means electricity from transactions that are not traceable to specific generation sources.

Table 24
Project Construction Power Cost and Electricity Usage

Power Cost (per 1,000 square foot of building per month of construction)	Total Building Size (1,000 Square Foot)	Construction Duration (months)	Total Project Construction Power Cost
$2.37	578.265	12	$16,445.86

Cost per kWh	Total Project Construction Electricity Usage (kWh)
$0.15	109,057

*Assumes the project will be under the GS-1 General Service rate under SCE. Rate is from the effective date as of March 1, 2024 from https://www.sce.com/regulatory/tariff-books/rates-pricing-choices

Table 25
Construction Equipment Fuel Consumption Estimates

Phase	Number of Days	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	HP hrs/day	Total Fuel Consumption (gal diesel fuel)[1]
Grading	35	Graders	1	8	148	0.41	613	995
	35	Excavator	2	8	36	0.38	961	0
	35	Tractors/Loaders/Backhoes	2	8	84	0.37	497	941
	35	Scrapers	2	8	423	0.48	3,249	6,146
	35	Rubber Tired Dozers	1	8	367	0.4	1,174	2,222
Building Construction	223	Forklifts	4	8	82	0.2	525	6,326
	223	Generator Sets	1	8	14	0.74	83	999
	223	Cranes	2	7	367	0.29	1,490	17,961
	223	Welders	2	8	46	0.45	331	3,992
	223	Tractors/Loaders/Backhoes	4	7	84	0.37	870	10,490
Paving	20	Pavers	2	8	81	0.42	544	588
	20	Paving Equipment	2	8	89	0.36	513	554
	20	Rollers	2	8	36	0.38	219	237
Architectural Coating	42	Air Compressors	1	6	37	0.48	107	242
CONSTRUCTION FUEL DEMAND (gallons of diesel fuel)								51,693

Notes:

(1) Using Carl Moyer Guidelines Table D-21 Fuel consumption rate factors (bhp-hr/gal) for engines less than 750 hp. (Source: https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf)

Table 26
Construction Worker Fuel Consumption Estimates

Phase	Number of Days	Worker Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Grading	35	20	18.5	12,950	26.59	487
Building Construction	223	243	18.5	1,002,497	26.59	37,709
Paving	20	15	18.5	5,550	26.59	209
Architectural Coating	42	48.6	18.5	37,762	26.59	1,420
Total Construction Worker Fuel Consumption						39,825

Notes:

(1) Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.22 defaults.

(2) Per CalEEMod User's Guide Appendix C (April 2022), CalEEMod assumes that construction work trips are made by a fleet consisting of 25 percent light-duty auto (or passenger car), 50 percent light-duty truck type 1 (LDT1), and 25 percent light duty truck type 2 (LDT2).

Table 27
Construction Vendor Fuel Consumption Estimates (MHD & HHD Trucks)

Phase	Number of Days	Vendor Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Grading	35	0	10.2	0	7.01	0
Building Construction	223	94.8	10.2	215,632	7.01	30,761
Paving	20	0	10.2	0	7.01	0
Architectural Coating	42	0	10.2	0	7.01	0
Total Construction Vendor Fuel Consumption						30,761

Notes:

(1) Assumptions for the vendor trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.22 defaults.

(2) Per CalEEMod User's Guide Appendix C (April 2022), CalEEMod assumes vendor trips are made by a fleet consisting of 50 percent medium trucks (MHDT) and 50 percent heavy trucks (HHDT).

Table 28
Construction Hauling Fuel Consumption Estimates (HHD Trucks)

Phase	Number of Days	Total Hauling Trips	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Grading	35	0	20	0	6.15	0
Building Construction	223	0	20	0	6.15	0
Paving	20	0	20	0	6.15	0
Architectural Coating	42	0	20	0	6.15	0
Total Construction Hauling Fuel Consumption						0

Notes:

(1) Assumptions for the hauling trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.22 defaults.

Table 29
Estimated Vehicle Operations Fuel Consumption

Vehicle Type	Vehicle Mix	Number of Vehicles	Average Trip (miles)[1]	Daily VMT	Average Fuel Economy (mpg)[2]	Total Gallons per Day	Total Annual Fuel Consumption (gallons)
Light Auto	Automobile	493	23.5	11,578	33.51	345.52	126,113
Light Truck	Automobile	38	23.5	886	25.58	34.65	12,647
Light Truck	Automobile	203	23.5	4,782	25.64	186.50	68,074
Light Heavy Truck	2-Axle Truck	17	40	684	16.47	41.55	15,167
Light Heavy Truck 10,000 lbs +	2-Axle Truck	5	40	195	15.61	12.50	4,562
Motorcycle	Automobile	23	23.5	539	41.79	12.91	4,712
Medium Truck	Automobile	157	23.5	3,694	21.01	175.81	64,170
Motor Home	--	0	23.5	0	5.78	0.00	0
Medium Heavy Truck	3-Axle Truck	28	40	1,131	8.01	141.17	51,527
Other Bus	--	0	23.5	0	6.29	0.00	0
School Bus	--	0	23.5	0	6.55	0.00	0
Urban Bus	--	0	23.5	0	3.53	0.00	0
Heavy Heavy Truck	4-Axle Truck	83	40	3,309	6.26	528.52	192,909
Total		1,047	--	26,798	-	1,479.12	--
Total Annual Fuel Consumption							539,880

Notes:

(1) Based on the size of the site and relative location, trips were assumed to be local rather than regional.

(2) Based on EMFAC2021 emission rates for opening year of 2026.

Table 30
Project Annual Operational Energy Demand Summary

Natural Gas Demand	kBTU/year[1]
Unrefrigerated Warehouse - No Rail	11,040,340
Total	11,040,340

Electricity Demand	kWh/year
Unrefrigerated Warehouse - No Rail	2,661,379
Parking Lot	443,784
Total	3,105,163

Notes:

(1) Taken from the CalEEMod 2022.1.1.22 output (Appendix B of this report).

6. EMISSIONS REDUCTION MEASURES

CONSTRUCTION MEASURES

Adherence to SCAQMD Rule 403 is required.

No construction mitigation is required.

OPERATIONAL MEASURES

No operational mitigation is required.

7. REFERENCES

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APPENDICES

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APPENDIX A

GLOSSARY

AQMP	Air Quality Management Plan
BACT	Best Available Control Technologies
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH_4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
GWP	Global warming potential
HIDPM	Hazard Index Diesel Particulate Matter
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO_2	Nitrogen dioxide
N_2O	Nitrous oxide
O_3	Ozone
OPR	Governor's Office of Planning and Research
PFCs	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SANBAG	San Bernardino Association of Governments
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SSAB	Salton Sea Air Basin
SF_6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
TAC	Toxic air contaminants
VOC	Volatile organic compounds

APPENDIX B

CALEEMOD MODEL DETAILED REPORT AND EMFAC DATA

19484 Placentia Avenue Industrial Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	19484 Placentia Avenue Industrial
Construction Start Date	3/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	0.20
Location	33.824307829671596, -117.2110563332833
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5501
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-No Rail	578	1000sqft	13.2	578,265	107,049	—	—	—
Parking Lot	239	Space	11.6	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.91	3.29	29.8	39.9	0.06	1.23	3.99	5.09	1.14	1.49	2.62	—	10,201	10,201	0.36	0.59	20.8	10,407
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.61	72.6	29.8	48.7	0.07	1.23	4.82	5.80	1.14	1.49	2.62	—	12,263	12,263	0.37	0.64	0.57	12,462
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.10	8.20	13.6	21.0	0.04	0.48	2.37	2.85	0.44	0.63	1.07	—	5,670	5,670	0.21	0.30	4.56	5,771
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	1.50	2.48	3.83	0.01	0.09	0.43	0.52	0.08	0.11	0.20	—	939	939	0.04	0.05	0.76	955

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.91	3.29	29.8	39.9	0.06	1.23	3.99	5.09	1.14	1.49	2.62	—	10,201	10,201	0.36	0.59	20.8	10,407
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.90	3.28	29.8	35.3	0.06	1.23	3.99	5.09	1.14	1.49	2.62	—	9,927	9,927	0.37	0.59	0.54	10,113
2026	4.61	72.6	28.2	48.7	0.07	0.99	4.82	5.80	0.91	1.16	2.07	—	12,263	12,263	0.35	0.64	0.57	12,462
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.10	1.77	13.6	21.0	0.04	0.48	2.37	2.85	0.44	0.63	1.07	—	5,670	5,670	0.21	0.30	4.56	5,771
2026	0.45	8.20	2.72	4.85	0.01	0.09	0.52	0.61	0.08	0.13	0.21	—	1,260	1,260	0.03	0.07	1.03	1,282
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.38	0.32	2.48	3.83	0.01	0.09	0.43	0.52	0.08	0.11	0.20	—	939	939	0.04	0.05	0.76	955
2026	0.08	1.50	0.50	0.89	< 0.005	0.02	0.09	0.11	0.02	0.02	0.04	—	209	209	0.01	0.01	0.17	212

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.2	22.8	16.2	103	0.27	0.49	19.2	19.7	0.47	4.90	5.37	549	35,748	36,297	56.9	2.45	82.1	38,531
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.51	18.5	16.7	63.3	0.26	0.45	19.2	19.7	0.44	4.90	5.34	549	34,362	34,911	56.9	2.48	2.13	37,073

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.56	21.3	17.1	83.0	0.26	0.48	19.2	19.7	0.46	4.90	5.36	549	34,617	35,166	56.9	2.49	35.4	37,364
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.56	3.89	3.12	15.1	0.05	0.09	3.51	3.60	0.08	0.89	0.98	90.9	5,731	5,822	9.42	0.41	5.87	6,186

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.37	4.61	13.0	75.2	0.25	0.22	19.2	19.5	0.21	4.90	5.11	—	26,240	26,240	0.63	1.77	82.1	26,867
Area	4.47	18.1	0.21	25.1	< 0.005	0.04	—	0.04	0.03	—	0.03	—	103	103	< 0.005	< 0.005	—	104
Energy	0.33	0.16	2.97	2.49	0.02	0.23	—	0.23	0.23	—	0.23	—	8,064	8,064	0.59	0.04	—	8,091
Water	—	—	—	—	—	—	—	—	—	—	—	256	1,340	1,596	26.4	0.63	—	2,444
Waste	—	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,025
Total	10.2	22.8	16.2	103	0.27	0.49	19.2	19.7	0.47	4.90	5.37	549	35,748	36,297	56.9	2.45	82.1	38,531
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.18	4.44	13.8	60.8	0.24	0.22	19.2	19.5	0.21	4.90	5.11	—	24,958	24,958	0.64	1.80	2.13	25,513
Area	—	13.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.33	0.16	2.97	2.49	0.02	0.23	—	0.23	0.23	—	0.23	—	8,064	8,064	0.59	0.04	—	8,091
Water	—	—	—	—	—	—	—	—	—	—	—	256	1,340	1,596	26.4	0.63	—	2,444
Waste	—	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,025
Total	5.51	18.5	16.7	63.3	0.26	0.45	19.2	19.7	0.44	4.90	5.34	549	34,362	34,911	56.9	2.48	2.13	37,073

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.17	4.42	14.0	63.2	0.24	0.22	19.2	19.5	0.21	4.90	5.11	—	25,142	25,142	0.64	1.81	35.4	25,733
Area	3.06	16.8	0.14	17.2	< 0.005	0.03	—	0.03	0.02	—	0.02	—	70.8	70.8	< 0.005	< 0.005	—	71.1
Energy	0.33	0.16	2.97	2.49	0.02	0.23	—	0.23	0.23	—	0.23	—	8,064	8,064	0.59	0.04	—	8,091
Water	—	—	—	—	—	—	—	—	—	—	—	256	1,340	1,596	26.4	0.63	—	2,444
Waste	—	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,025
Total	8.56	21.3	17.1	83.0	0.26	0.48	19.2	19.7	0.46	4.90	5.36	549	34,617	35,166	56.9	2.49	35.4	37,364
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.94	0.81	2.55	11.5	0.04	0.04	3.51	3.55	0.04	0.89	0.93	—	4,163	4,163	0.11	0.30	5.87	4,260
Area	0.56	3.06	0.03	3.14	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	11.7	11.7	< 0.005	< 0.005	—	11.8
Energy	0.06	0.03	0.54	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,335	1,335	0.10	0.01	—	1,340
Water	—	—	—	—	—	—	—	—	—	—	—	42.4	222	264	4.36	0.11	—	405
Waste	—	—	—	—	—	—	—	—	—	—	—	48.5	0.00	48.5	4.85	0.00	—	170
Total	1.56	3.89	3.12	15.1	0.05	0.09	3.51	3.60	0.08	0.89	0.98	90.9	5,731	5,822	9.42	0.41	5.87	6,186

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622

Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	2.85	2.71	0.01	0.12	—	0.12	0.11	—	0.11	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.09	1.54	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	282	282	0.01	0.01	1.04	286
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.17	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	259	259	0.01	0.01	0.03	262
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.17	4.17	< 0.005	< 0.005	0.01	4.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.16	1.81	16.7	20.1	0.04	0.68	—	0.68	0.62	—	0.62	—	3,878	3,878	0.16	0.03	—	3,892
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.16	1.81	16.7	20.1	0.04	0.68	—	0.68	0.62	—	0.62	—	3,878	3,878	0.16	0.03	—	3,892
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.09	0.91	8.39	10.1	0.02	0.34	—	0.34	0.31	—	0.31	—	1,951	1,951	0.08	0.02	—	1,957
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.53	1.85	< 0.005	0.06	—	0.06	0.06	—	0.06	—	323	323	0.01	< 0.005	—	324
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.31	1.09	1.06	18.8	0.00	0.00	3.17	3.17	0.00	0.74	0.74	—	3,423	3,423	0.14	0.12	12.6	3,475
Vendor	0.13	0.06	3.18	0.99	0.02	0.04	0.81	0.85	0.04	0.22	0.27	—	2,900	2,900	0.06	0.44	8.23	3,041
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.15	1.02	1.17	14.2	0.00	0.00	3.17	3.17	0.00	0.74	0.74	—	3,147	3,147	0.15	0.12	0.33	3,187

Vendor	0.13	0.06	3.33	1.02	0.02	0.04	0.81	0.85	0.04	0.22	0.27	—	2,902	2,902	0.06	0.44	0.21	3,035
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57	0.51	0.64	7.53	0.00	0.00	1.60	1.60	0.00	0.37	0.37	—	1,603	1,603	0.07	0.06	2.73	1,625
Vendor	0.06	0.03	1.67	0.50	0.01	0.02	0.41	0.43	0.02	0.11	0.13	—	1,459	1,459	0.03	0.22	1.79	1,527
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.12	1.38	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	265	265	0.01	0.01	0.45	269
Vendor	0.01	0.01	0.31	0.09	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	242	242	0.01	0.04	0.30	253
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.06	1.72	15.8	20.0	0.04	0.60	—	0.60	0.55	—	0.55	—	3,878	3,878	0.16	0.03	—	3,891
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.73	2.19	< 0.005	0.07	—	0.07	0.06	—	0.06	—	425	425	0.02	< 0.005	—	426

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	70.4	70.4	< 0.005	< 0.005	—	70.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.09	0.97	1.06	13.2	0.00	0.00	3.17	3.17	0.00	0.74	0.74	—	3,080	3,080	0.05	0.12	0.29	3,117
Vendor	0.13	0.06	3.18	0.97	0.02	0.04	0.81	0.85	0.04	0.22	0.27	—	2,855	2,855	0.06	0.44	0.20	2,988
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.52	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	342	342	0.01	0.01	0.54	346
Vendor	0.01	0.01	0.35	0.10	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	313	313	0.01	0.05	0.37	328
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	56.6	56.6	< 0.005	< 0.005	0.09	57.4
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.8	51.8	< 0.005	0.01	0.06	54.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	1.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	67.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.01	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.4	15.4	< 0.005	< 0.005	—	15.4
Architectural Coatings	—	7.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.54	2.54	< 0.005	< 0.005	—	2.55
Architectural Coatings	—	1.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.19	0.21	2.65	0.00	0.00	0.63	0.63	0.00	0.15	0.15	—	616	616	0.01	0.02	0.06	623
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.32	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.8	71.8	< 0.005	< 0.005	0.11	72.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.02	12.0

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	5.37	4.61	13.0	75.2	0.25	0.22	19.2	19.5	0.21	4.90	5.11	—	26,240	26,240	0.63	1.77	82.1	26,867
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.37	4.61	13.0	75.2	0.25	0.22	19.2	19.5	0.21	4.90	5.11	—	26,240	26,240	0.63	1.77	82.1	26,867
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	5.18	4.44	13.8	60.8	0.24	0.22	19.2	19.5	0.21	4.90	5.11	—	24,958	24,958	0.64	1.80	2.13	25,513
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.18	4.44	13.8	60.8	0.24	0.22	19.2	19.5	0.21	4.90	5.11	—	24,958	24,958	0.64	1.80	2.13	25,513

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.94	0.81	2.55	11.5	0.04	0.04	3.51	3.55	0.04	0.89	0.93	—	4,163	4,163	0.11	0.30	5.87	4,260
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.94	0.81	2.55	11.5	0.04	0.04	3.51	3.55	0.04	0.89	0.93	—	4,163	4,163	0.11	0.30	5.87	4,260

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3,879	3,879	0.24	0.03	—	3,894
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	647	647	0.04	< 0.005	—	649
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,526	4,526	0.28	0.03	—	4,543
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3,879	3,879	0.24	0.03	—	3,894

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	647	647	0.04	< 0.005	—	649
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,526	4,526	0.28	0.03	—	4,543
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	642	642	0.04	< 0.005	—	645
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	107	107	0.01	< 0.005	—	107
Total	—	—	—	—	—	—	—	—	—	—	—	—	749	749	0.05	0.01	—	752

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.33	0.16	2.97	2.49	0.02	0.23	—	0.23	0.23	—	0.23	—	3,538	3,538	0.31	0.01	—	3,548
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.33	0.16	2.97	2.49	0.02	0.23	—	0.23	0.23	—	0.23	—	3,538	3,538	0.31	0.01	—	3,548
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	0.33	0.16	2.97	2.49	0.02	0.23	—	0.23	0.23	—	0.23	—	3,538	3,538	0.31	0.01	—	3,548
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.33	0.16	2.97	2.49	0.02	0.23	—	0.23	0.23	—	0.23	—	3,538	3,538	0.31	0.01	—	3,548
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.06	0.03	0.54	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	586	586	0.05	< 0.005	—	587
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.54	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	586	586	0.05	< 0.005	—	587

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	12.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	4.47	4.13	0.21	25.1	< 0.005	0.04	—	0.04	0.03	—	0.03	—	103	103	< 0.005	< 0.005	—	104
Total	4.47	18.1	0.21	25.1	< 0.005	0.04	—	0.04	0.03	—	0.03	—	103	103	< 0.005	< 0.005	—	104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	12.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	13.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.56	0.52	0.03	3.14	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	11.7	11.7	< 0.005	< 0.005	—	11.8
Total	0.56	3.06	0.03	3.14	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	11.7	11.7	< 0.005	< 0.005	—	11.8

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	256	1,340	1,596	26.4	0.63	—	2,444
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	256	1,340	1,596	26.4	0.63	—	2,444
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	256	1,340	1,596	26.4	0.63	—	2,444
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	256	1,340	1,596	26.4	0.63	—	2,444
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	42.4	222	264	4.36	0.11	—	405
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	42.4	222	264	4.36	0.11	—	405

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,025
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,025
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,025
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	293	0.00	293	29.3	0.00	—	1,025
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	48.5	0.00	48.5	4.85	0.00	—	170
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	48.5	0.00	48.5	4.85	0.00	—	170

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	3/1/2025	4/18/2025	5.00	35.0	—
Building Construction	Building Construction	4/19/2025	2/25/2026	5.00	223	—

Paving	Paving	1/1/2026	1/28/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	1/1/2026	3/1/2026	5.00	42.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	4.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	2.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	2.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	4.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix

Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	243	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	94.8	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	48.6	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	867,398	289,133	30,396

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	105	0.00	—
Paving	0.00	0.00	0.00	0.00	11.6

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	11.6	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	1,047	1,047	1,047	382,031	26,783	26,783	26,783	9,775,809
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	867,398	289,133	30,396

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,661,379	532	0.0330	0.0040	11,040,340
Parking Lot	443,784	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	133,723,781	1,697,338
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	544	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.36	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.0
AQ-PM	53.3
AQ-DPM	13.7
Drinking Water	10.2
Lead Risk Housing	33.4
Pesticides	35.2
Toxic Releases	36.2
Traffic	42.2
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	65.8
Cardio-vascular	91.1
Low Birth Weights	41.5
Socioeconomic Factor Indicators	—
Education	92.2
Housing	75.3
Linguistic	61.1
Poverty	90.2

Unemployment	78.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	11.61298601
Employed	7.173104068
Median HI	34.63364558
Education	—
Bachelor's or higher	3.605800077
High school enrollment	14.38470422
Preschool enrollment	20.05646093
Transportation	—
Auto Access	81.29090209
Active commuting	17.74669575
Social	—
2-parent households	21.22417554
Voting	4.144745284
Neighborhood	—
Alcohol availability	63.15924548
Park access	81.35506224
Retail density	48.73604517
Supermarket access	65.55883485
Tree canopy	1.770819967
Housing	—
Homeownership	67.59912742

Housing habitability	18.02900038
Low-inc homeowner severe housing cost burden	11.06120878
Low-inc renter severe housing cost burden	3.37482356
Uncrowded housing	14.42320031
Health Outcomes	—
Insured adults	22.41755422
Arthritis	48.2
Asthma ER Admissions	42.5
High Blood Pressure	39.5
Cancer (excluding skin)	82.6
Asthma	16.4
Coronary Heart Disease	43.7
Chronic Obstructive Pulmonary Disease	29.1
Diagnosed Diabetes	22.3
Life Expectancy at Birth	19.2
Cognitively Disabled	58.3
Physically Disabled	60.6
Heart Attack ER Admissions	7.4
Mental Health Not Good	14.3
Chronic Kidney Disease	27.1
Obesity	8.0
Pedestrian Injuries	57.7
Physical Health Not Good	15.6
Stroke	29.9
Health Risk Behaviors	—
Binge Drinking	58.7
Current Smoker	15.0

No Leisure Time for Physical Activity	10.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	20.9
Elderly	91.7
English Speaking	32.2
Foreign-born	65.8
Outdoor Workers	20.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	67.4
Traffic Density	16.8
Traffic Access	23.0
Other Indices	—
Hardship	90.9
Other Decision Support	—
2016 Voting	12.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	9.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	27.25-acre site with 578,265 square foot industrial building (footprint is 273,265 sf or 13.16 acres), 107,049 sf (or ~2.46 acres) landscaping, and a parking lot with 201 auto and 138 trailer spaces for a total of 239 parking spaces. Remainder 9.48 acres of site area anticipated to be paving of driveways/on-site roadways etc., this has been added into the parking lot land use.
Construction: Construction Phases	Construction anticipated to begin early Spring 2025 and take approximately 12 months to complete. Modeled as start early March 2025 and end early March 2026. Site anticipated to balance. Site is vacant, no demolition or site preparation.
Construction: Off-Road Equipment	CalEEMod default construction timing for building construction was reduced by ~40%; therefore, CalEEMod default construction equipment list for building construction was increased by ~40%.
Operations: Vehicle Data	Per TIA, 1.81 trips/TSF/day. Percentages changed to 87.3% autos (H-W) & 12.7% trucks (W-O) for general light industrial use. Due to warehouse use and per SCAQMD recommendation, W-O trip length changed to 40 miles.
Operations: Fleet Mix	Revised per the vehicle mix provided in the TIA of 87.3% Autos, 2.1% 2-Axle Trucks, 2.7% 3-Axle Trucks and 7.9% 4+ Axle Trucks.
Construction: Architectural Coatings	SCAQMD Rule 1113 limits architectural coatings to 50 g/L VOC for buildings and 100 g/L VOC for parking lot striping.

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: Air Basin
Region: South Coast
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Energy Consumption	Fuel Consumption	Fuel Consumption	Total Fuel Consumptior	Total VMT	Total VMT	Miles Per Gallon	Vehicle Class
South Coast	2025	HHDT	Aggregate	Aggregate	Gasoline	54.83401411	1097.118954	0	0.915660885	915.6608849	2033428.223	3783.739566	12499201.56	**6.15**	**HHDT**
South Coast	2025	HHDT	Aggregate	Aggregate	Diesel	95337.36817	1459640.636	0	1919.938673	1919938.673		11745346.31			
South Coast	2025	HHDT	Aggregate	Aggregate	Electricity	647.565363	8586.113967	125035.0292	0	0		69780.1703			
South Coast	2025	HHDT	Aggregate	Aggregate	Natural Gas	10701.05249	68656.35135	0	112.5738892	112573.8892		680291.3416			
South Coast	2025	LDA	Aggregate	Aggregate	Gasoline	5244723.652	24385315.28	0	7108.358927	7108358.927	7245907.135	210339700.5	233546247.7	**32.23**	**LDA**
South Coast	2025	LDA	Aggregate	Aggregate	Diesel	13504.15254	56096.65324	0	9.832104986	9832.104986		408222.3366			
South Coast	2025	LDA	Aggregate	Aggregate	Electricity	314906.6469	1568075.372	5911352.826	0	0		15311111.74			
South Coast	2025	LDA	Aggregate	Aggregate	Plug-in Hybrid	159860.278	661022.2496	1174382.35	127.7161032	127716.1032		7487213.196			
South Coast	2025	LDT1	Aggregate	Aggregate	Gasoline	483367.514	2127610.282	0	708.9359688	708935.9688	709884.4736	17503198.77	17626287.18	**24.83**	**LDT1**
South Coast	2025	LDT1	Aggregate	Aggregate	Diesel	161.5260868	453.3891137	0	0.127085477	127.0854768		2967.035899			
South Coast	2025	LDT1	Aggregate	Aggregate	Electricity	1505.26458	7236.189381	25889.93818	0	0		67058.04036			
South Coast	2025	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1033.948372	4275.376518	9086.363765	0.821419376	821.4193759		53063.32883			
South Coast	2025	LDT2	Aggregate	Aggregate	Gasoline	2528171.942	11891190.15	0	4341.426391	4341426.391	4373117.135	104543301.5	106927231	**24.45**	**LDT2**
South Coast	2025	LDT2	Aggregate	Aggregate	Diesel	8518.978579	40955.39339	0	11.53683826	11536.83826		366939.3838			
South Coast	2025	LDT2	Aggregate	Aggregate	Electricity	21565.05505	109850.7805	300027.449	0	0		777107.023			
South Coast	2025	LDT2	Aggregate	Aggregate	Plug-in Hybrid	25221.81395	104292.2007	204751.9727	20.15390552	20153.90552		1239883.058			
South Coast	2025	LHDT1	Aggregate	Aggregate	Gasoline	199655.4178	2974568.238	0	565.7929114	565792.9114	785253.6339	7899242.311	12579982.86	**16.02**	**LHDT1**
South Coast	2025	LHDT1	Aggregate	Aggregate	Diesel	107539.0383	1352705.817	0	219.4607225	219460.7225		4531936.528			
South Coast	2025	LHDT1	Aggregate	Aggregate	Electricity	2131.529069	29802.51665	83294.25907	0	0		148804.02			
South Coast	2025	LHDT2	Aggregate	Aggregate	Gasoline	30849.1838	459606.8733	0	93.96299335	93962.99335	208962.5987	1145449.689	3183322.084	**15.23**	**LHDT2**
South Coast	2025	LHDT2	Aggregate	Aggregate	Diesel	48016.98656	603993.2855	0	114.9996053	114999.6053		2001431.485			
South Coast	2025	LHDT2	Aggregate	Aggregate	Electricity	549.452873	7286.296511	20413.74678	0	0		36440.90994			
South Coast	2025	MCY	Aggregate	Aggregate	Gasoline	246317.3152	492634.6304	0	37.82728892	37827.28892	37827.28892	1575969.655	1575969.655	**41.66**	**MCY**
South Coast	2025	MDV	Aggregate	Aggregate	Gasoline	1582911.671	7327873.919	0	3124.528435	3124528.435	3169334.086	61244218.19	63579746.09	**20.06**	**MDV**
South Coast	2025	MDV	Aggregate	Aggregate	Diesel	19966.30161	93386.67778	0	32.96063764	32960.63764		783550.3632			
South Coast	2025	MDV	Aggregate	Aggregate	Electricity	23405.95686	119202.2123	325389.6809	0	0		842798.2408			
South Coast	2025	MDV	Aggregate	Aggregate	Plug-in Hybrid	15515.87163	64158.1292	115605.1765	11.8450132	11845.0132		709179.3041			
South Coast	2025	MH	Aggregate	Aggregate	Gasoline	28222.75742	2823.404652	0	55.89330175	55893.30175	67478.95091	271714.048	388622.5468	**5.76**	**MH**
South Coast	2025	MH	Aggregate	Aggregate	Diesel	11853.97154	1185.397154	0	11.58564916	11585.64916		116908.4988			
South Coast	2025	MHDT	Aggregate	Aggregate	Gasoline	24266.37368	485521.6046	0	246.6220886	246622.0886	803911.5702	1285729.87	6330495.207	**7.87**	**MHDT**
South Coast	2025	MHDT	Aggregate	Aggregate	Diesel	117076.634	1440705.231	0	548.3413637	548341.3637		4914316.485			
South Coast	2025	MHDT	Aggregate	Aggregate	Electricity	1030.710845	13697.48889	58527.95377	0	0		55891.50984			
South Coast	2025	MHDT	Aggregate	Aggregate	Natural Gas	1586.964447	14102.34275	0	8.94811801	8948.11801		74557.34189			
South Coast	2025	OBUS	Aggregate	Aggregate	Gasoline	5130.782804	102656.7023	0	38.98709136	38987.09136	75404.10956	199581.2481	465625.8692	**6.18**	**OBUS**
South Coast	2025	OBUS	Aggregate	Aggregate	Diesel	3078.572652	39272.27543	0	33.03961652	33039.61652		233905.0145			
South Coast	2025	OBUS	Aggregate	Aggregate	Electricity	29.09533983	582.1395594	2258.641236	0	0		2147.933443			
South Coast	2025	OBUS	Aggregate	Aggregate	Natural Gas	505.1478218	4495.815614	0	3.377401677	3377.401677		29991.67319			
South Coast	2025	SBUS	Aggregate	Aggregate	Gasoline	2812.998756	11251.99503	0	13.81627409	13816.27409	41147.02398	123623.802	268314.9981	**6.52**	**SBUS**
South Coast	2025	SBUS	Aggregate	Aggregate	Diesel	3181.542446	46068.73461	0	8.734797087	8734.797087		64276.54474			
South Coast	2025	SBUS	Aggregate	Aggregate	Electricity	47.38132065	537.5923668	1681.228052	0	0		1453.97051			
South Coast	2025	SBUS	Aggregate	Aggregate	Natural Gas	3209.535885	46474.07961	0	18.59595281	18595.95281		78960.68088			
South Coast	2025	UBUS	Aggregate	Aggregate	Gasoline	892.063682	3568.254728	0	13.80114714	13801.14714	198998.2045	96751.77026	697627.2588	**3.51**	**UBUS**
South Coast	2025	UBUS	Aggregate	Aggregate	Diesel	11.19759793	44.79039173	0	0.207460052	207.4600516		1417.05095			
South Coast	2025	UBUS	Aggregate	Aggregate	Electricity	163.9010308	655.6041234	34521.6162	0	0		16501.94536			
South Coast	2025	UBUS	Aggregate	Aggregate	Natural Gas	4881.393278	19525.57311	0	184.9895973	184989.5973		582956.4922			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Air Basin
Region: South Coast
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Energy Consumption	Fuel Consumption	Fuel Consumption	Total Fuel Consumption	Total VMT	Total VMT	Miles Per Gallon	Vehicle Class
South Coast	2026	HHDT	Aggregate	Aggregate	Gasoline	45.28727755	906.1078492	0	0.826439263	826.4392634	2040037.147	3515.176047	12762260.29	**6.26**	**HHDT**
South Coast	2026	HHDT	Aggregate	Aggregate	Diesel	97738.13703	1499287.564	0	1924.425077	1924425.077		11935536.65			
South Coast	2026	HHDT	Aggregate	Aggregate	Electricity	1127.803815	15012.08067	218857.8017	0	0		122141.2963			
South Coast	2026	HHDT	Aggregate	Aggregate	Natural Gas	11136.92104	71605.89185	0	114.7856315	114785.6315		701067.1645			
South Coast	2026	LDA	Aggregate	Aggregate	Gasoline	5195643.708	24143840.26	0	6782.676882	6782676.882	6921645.961	207389418.9	231955554.2	**33.51**	**LDA**
South Coast	2026	LDA	Aggregate	Aggregate	Diesel	12287.58157	51140.44532	0	8.767517115	8767.517115		370075.1174			
South Coast	2026	LDA	Aggregate	Aggregate	Electricity	344157.5263	1706165.237	6342137.443	0	0		16426895.48			
South Coast	2026	LDA	Aggregate	Aggregate	Plug-in Hybrid	168809.5326	698027.4173	1240278.612	130.201561	130201.561		7769164.725			
South Coast	2026	LDT1	Aggregate	Aggregate	Gasoline	476323.5206	2097590.987	0	678.0887347	678088.7347	679239.9851	17216273.05	17371977.47	**25.58**	**LDT1**
South Coast	2026	LDT1	Aggregate	Aggregate	Diesel	134.4367276	372.1645155	0	0.103697527	103.6975272		2435.198128			
South Coast	2026	LDT1	Aggregate	Aggregate	Electricity	1851.074177	8991.774052	32640.99575	0	0		84544.08793			
South Coast	2026	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1363.558276	5638.31347	11920.71238	1.047552876	1047.552876		68725.12561			
South Coast	2026	LDT2	Aggregate	Aggregate	Gasoline	2579520.408	12130525.5	0	4213.67897	4213678.97	4247377.404	106163830	108886311.7	**25.64**	**LDT2**
South Coast	2026	LDT2	Aggregate	Aggregate	Diesel	8867.858357	42507.35427	0	11.36067539	11360.67539		377428.6943			
South Coast	2026	LDT2	Aggregate	Aggregate	Electricity	26735.86194	135545.3315	365644.5096	0	0		947063.0678			
South Coast	2026	LDT2	Aggregate	Aggregate	Plug-in Hybrid	29040.30722	120081.6703	234335.4931	22.33775891	22337.75891		1397989.883			
South Coast	2026	LHDT1	Aggregate	Aggregate	Gasoline	199218.1798	2968054.043	0	554.0943882	554094.3882	778318.8766	7895647.304	12817307.83	**16.47**	**LHDT1**
South Coast	2026	LHDT1	Aggregate	Aggregate	Diesel	110824.2702	1394029.902	0	224.2244884	224224.4884		4651442.085			
South Coast	2026	LHDT1	Aggregate	Aggregate	Electricity	4055.383124	56705.54919	151287.7363	0	0		270218.4372			
South Coast	2026	LHDT2	Aggregate	Aggregate	Gasoline	30610.65521	456053.1528	0	91.39194251	91391.94251	209308.2006	1134530.272	3267042.154	**15.61**	**LHDT2**
South Coast	2026	LHDT2	Aggregate	Aggregate	Diesel	49935.33556	628123.7026	0	117.9162581	117916.2581		2066139.273			
South Coast	2026	LHDT2	Aggregate	Aggregate	Electricity	1047.275343	13892.53274	37187.32905	0	0		66372.60862			
South Coast	2026	MCY	Aggregate	Aggregate	Gasoline	250487.6045	500975.209	0	38.18100333	38181.00333	38181.00333	1595492.078	1595492.078	**41.79**	**MCY**
South Coast	2026	MDV	Aggregate	Aggregate	Gasoline	1596136.553	7392706.354	0	3011.039477	3011039.477	3055964.697	61598198.2	64209958.05	**21.01**	**MDV**
South Coast	2026	MDV	Aggregate	Aggregate	Diesel	20066.48661	93545.30034	0	31.64015543	31640.15543		778197.9806			
South Coast	2026	MDV	Aggregate	Aggregate	Electricity	28847.6688	146197.0743	394020.0271	0	0		1020559.056			
South Coast	2026	MDV	Aggregate	Aggregate	Plug-in Hybrid	18049.49416	74634.65834	135075.7859	13.28506472	13285.06472		813002.8095			
South Coast	2026	MH	Aggregate	Aggregate	Gasoline	27278.64846	2728.955991	0	54.52892025	54528.92025	66225.52092	265063.4305	382974.6262	**5.78**	**MH**
South Coast	2026	MH	Aggregate	Aggregate	Diesel	11990.57298	1199.057298	0	11.69660067	11696.60067		117911.1957			
South Coast	2026	MHDT	Aggregate	Aggregate	Gasoline	23709.92089	474388.0972	0	236.9518121	236951.8121	795432.9677	1246845.641	6369185.402	**8.01**	**MHDT**
South Coast	2026	MHDT	Aggregate	Aggregate	Diesel	119147.669	1467301.162	0	549.2177252	549217.7252		4943659.689			
South Coast	2026	MHDT	Aggregate	Aggregate	Electricity	1897.982484	25122.25889	106245.4113	0	0		101446.1358			
South Coast	2026	MHDT	Aggregate	Aggregate	Natural Gas	1676.42244	14874.65576	0	9.263430478	9263.430478		77233.93662			
South Coast	2026	OBUS	Aggregate	Aggregate	Gasoline	4985.01682	99740.21654	0	36.8023149	36802.3149	73013.96337	190323.4224	458958.6555	**6.29**	**OBUS**
South Coast	2026	OBUS	Aggregate	Aggregate	Diesel	3150.254377	40409.07405	0	32.78261169	32782.61169		234257.9808			
South Coast	2026	OBUS	Aggregate	Aggregate	Electricity	48.73252846	975.0404293	3712.22292	0	0		3530.286569			
South Coast	2026	OBUS	Aggregate	Aggregate	Natural Gas	527.7646575	4697.105452	0	3.429036786	3429.036786		30846.96566			
South Coast	2026	SBUS	Aggregate	Aggregate	Gasoline	2859.470681	11437.88272	0	13.96502478	13965.02478	41288.84431	125429.044	270519.1537	**6.55**	**SBUS**
South Coast	2026	SBUS	Aggregate	Aggregate	Diesel	3069.620153	44448.09982	0	8.356963071	8356.963071		61684.67939			
South Coast	2026	SBUS	Aggregate	Aggregate	Electricity	80.42870332	920.4792925	2842.019937	0	0		2457.85405			
South Coast	2026	SBUS	Aggregate	Aggregate	Natural Gas	3324.894418	48144.47117	0	18.96685646	18966.85646		80947.57625			
South Coast	2026	UBUS	Aggregate	Aggregate	Gasoline	893.8375958	3575.350383	0	13.78048566	13780.48566	197989.9042	96943.51406	699028.0473	**3.53**	**UBUS**
South Coast	2026	UBUS	Aggregate	Aggregate	Diesel	11.14254485	44.57017938	0	0.207035957	207.0359572		1412.946963			
South Coast	2026	UBUS	Aggregate	Aggregate	Electricity	188.9556535	755.822614	40048.57494	0	0		19186.0799			
South Coast	2026	UBUS	Aggregate	Aggregate	Natural Gas	4866.60233	19466.40932	0	184.0023825	184002.3825		581485.5063			

APPENDIX C

AERMOD MODEL PRINTOUTS

Emission Assumptions **DPM** Emissions
Placentia Avenue Industrial

Facility Operations

Buildout year: 2026

Emission Factors

1) Onsite Vehicle Emissions

a) Truck

(1) EMFAC2021 - PM2.5 used as surrogate for DPM

(a) Annual Meteorology

Temperature: 50 degF

Relative Humidity: 50%

(b) Calculations for Riverside County

(c) Truck Mix

4+ axle heavy-heavy duty diesel trucks (HHDT)

4 axle diesel trucks (MHDT)

2 axle diesel trucks (LHDT2)

(d) Onsite Truck Travel Speed: 10 mph

(e) Off-site Truck Travel Speed: 35 mph

(f) Idle speed: 0 mph

(g) Truck Idle time: 15 minutes per truck per day

2) Other Parameters

(a) Width of Truck Source: 8.5 feet

(b) Truck Operational Schedule 24 hours/day

(c) Height of Truck: 13.5 feet

(d) Release Height: 3.5 meters

Placentia Avenue Industrial		**Emission:**	**DPM**									
Processes Modeled		**Build-out:**	**2026**									
Onsite truck traffic												
Truck idling												
Offsite truck traffic												
Facilities in Operation												
Location	**Truck type**	**Daily trucks**										
Project Site	HHDT	83										
Project Site	MHDT	28										
Project Site	LHDT2	22										
Total		**133**										
Truck Activity Schedule:												
	24	**hrs/day, 52 weeks/year**										
Emission Factors 1 Year (2026)	**Onsite**	**Offsite**										
	Exhaust	**Exhaust**	**Idle**									
Vehicle Class	**(g/mi)**	**(g/mi)**	**(g/hr)**									
HHDT	0.01146	0.00773	0.01392									
MHDT	0.02675	0.00660	0.04976									
LHDT2	0.04702	0.01946	0.77754									
Onsite Roadway Links Modeled												
Link	**Truck Type**	**Emission Factor (g/mi)**	**Trips per day (in and out)**	**Length (m)**	**Length (mi)**	**Daily Emissions Over the Link (g/day)**	**Emissions Over the Link (g/sec)**	**Emissions Over Link (lb/hr)**	**Daily Emissions (lbs/day)**	**Annual Avg Emissions Over Link (tons/yr)**	**Total Daily Emissions for all Vehicles (g/sec)**	
Northern Driveway entrance/exit and loading docks	HHDT	0.01146	83	335.2	0.21	1.98E-01	2.29E-06	1.57E+00	4.36E-04	7.96E-05		
Northern Driveway entrance/exit and loading docks	MHDT	0.02675	28	335.2	0.21	1.56E-01	1.81E-06	1.24E+00	3.44E-04	6.27E-05	**3.30E-06**	50% of trucks
Northern Driveway entrance/exit and loading docks	LHDT2	0.04702	22	335.2	0.21	2.15E-01	2.49E-06	1.71E+00	4.74E-04	8.66E-05		
Southern Driveway entrance/exit and loading docks	HHDT	0.11293	83	326	0.20	1.90E+00	2.20E-05	1.51E+01	4.18E-03	7.63E-04		
Southern Driveway entrance/exit and loading docks	MHDT	0.23986	28	326	0.20	1.36E+00	1.57E-05	1.08E+01	3.00E-03	5.47E-04	**2.03E-05**	50% of trucks
Southern Driveway entrance/exit and loading docks	LHDT2	0.05607	22	326	0.20	2.50E-01	2.89E-06	1.98E+00	5.50E-04	1.00E-04		
Truck Idling	Idle time		15	minutes								
Building/Location	**Truck Type**	**Emission Factor (g/idle-hour)**	**Idling Time (min)**	**Daily Trucks**	**Total Emissions (g/day)**	**Max Hourly Emissions (g/sec)**	**Max Hourly Emissions (lb/hr)**	**Total Daily Emissions (lbs/day)**	**Total Emissions (tons/yr)**	**Total Emissions (tons/yr)**		
At entrance/exit driveways and loading docks	HHDT	0.01392	15	83	0.29	3.34E-06	2.65E-05	6.36E-04	1.16E-04			
At entrance/exit driveways and loading docks	MHDT	0.04976	15	28	0.35	4.03E-06	3.20E-05	7.67E-04	1.40E-04		5.69E-05	
At entrance/exit driveways and loading docks	LHDT2	0.77754	15	22	4.28	4.95E-05	3.92E-04	9.42E-03	1.72E-03		**7.11E-06**	per idling location
												(8 total)
Offsite Roadway Links Modeled												
Link	**Truck Type**	**Emission Factor (g/mi)**	**Trips per day**	**Length (m)**	**Length (mi)**	**Daily Emissions Over the Link (g/day)**	**Emissions Over the Link (g/sec)**	**Max Hourly Emissions Over Link (lb/hr)**	**Daily Emissions (lbs/day)**	**Annual Avg Emissions Over Link (tons/yr)**		
Offsite truck traffic along Wilson Avenue next to project site.	HHDT	0.00773	83	210.5	0.13	8.39E-02	9.71E-07	6.65E-01	1.85E-04	3.37E-05	50% of trucks	
Offsite truck traffic along Wilson Avenue next to project site.	MHDT	0.00660	28	210.5	0.13	2.42E-02	2.80E-07	1.92E-01	5.32E-05	9.71E-06	**3.80E-08**	
Offsite truck traffic along Wilson Avenue next to project site.	LHDT2	0.01946	22	210.5	0.13	5.60E-02	6.48E-07	4.44E-01	1.23E-04	2.25E-05		
Offsite truck traffic along Wilson Ave to Rider St, then to Redlands Ave	HHDT	0.00797	83	1018.2	0.63	4.18E-01	4.84E-06	3.32E+00	9.21E-04	1.68E-04	100% of trucks	
Offsite truck traffic along Wilson Ave to Rider St, then to Redlands Ave	MHDT	0.00769	28	1018.2	0.63	1.36E-01	1.58E-06	1.08E+00	3.00E-04	5.47E-05	**9.73E-06**	
Offsite truck traffic along Wilson Ave to Rider St, then to Redlands Ave	LHDT2	0.02055	22	1018.2	0.63	2.86E-01	3.31E-06	2.27E+00	6.30E-04	1.15E-04		

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** Lakes Environmental AERMOD MPI
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** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 4/15/2024
** File: C:\Lakes\AERMOD View\19484 Placentia Avenue Industrial\19484 Placentia Avenue Industrial.ADI
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**
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** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE 19484 Placentia Avenue Industrial
   TITLETWO DPM Opening Year
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 2189641 Riverside_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "19484 Placentia Avenue Industrial.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      480511.374  3742614.717      438.410
** DESCRSRC Idling Location
   LOCATION STCK2        POINT      480438.475  3742612.819      438.580
** DESCRSRC Idling Location
   LOCATION STCK3        POINT      480579.069  3742613.292      438.260
** DESCRSRC Idling Location
   LOCATION STCK4        POINT      480438.054  3742806.660      438.480
** DESCRSRC Idling Location
   LOCATION STCK5        POINT      480597.092  3742807.002      438.360
** DESCRSRC Idling Location
   LOCATION STCK6        POINT      480522.532  3742808.028      438.410
** DESCRSRC Idling Location
   LOCATION STCK7        POINT      480302.109  3742826.279      438.670
** DESCRSRC Idling Location
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   LOCATION STCK8        POINT      480303.243  3742614.083      438.910
** DESCRSRC Idling Location
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Northern driveway onsite truck travel
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 3.3E-06
** Elevated
** Building Height = 10.97
** SZINIT = 5.10
** Nodes = 2
** 480295.752, 3742826.510, 438.67, 3.50, 4.00
** 480630.946, 3742826.852, 438.32, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000001     VOLUME   480300.048 3742826.514 438.68
   LOCATION L0000002     VOLUME   480308.639 3742826.523 438.67
   LOCATION L0000003     VOLUME   480317.229 3742826.532 438.66
   LOCATION L0000004     VOLUME   480325.820 3742826.541 438.65
   LOCATION L0000005     VOLUME   480334.411 3742826.549 438.62
   LOCATION L0000006     VOLUME   480343.002 3742826.558 438.60
   LOCATION L0000007     VOLUME   480351.593 3742826.567 438.59
   LOCATION L0000008     VOLUME   480360.183 3742826.576 438.58
   LOCATION L0000009     VOLUME   480368.774 3742826.584 438.57
   LOCATION L0000010     VOLUME   480377.365 3742826.593 438.56
   LOCATION L0000011     VOLUME   480385.956 3742826.602 438.55
   LOCATION L0000012     VOLUME   480394.547 3742826.611 438.53
   LOCATION L0000013     VOLUME   480403.137 3742826.619 438.53
   LOCATION L0000014     VOLUME   480411.728 3742826.628 438.53
   LOCATION L0000015     VOLUME   480420.319 3742826.637 438.53
   LOCATION L0000016     VOLUME   480428.910 3742826.646 438.53
   LOCATION L0000017     VOLUME   480437.501 3742826.655 438.53
   LOCATION L0000018     VOLUME   480446.091 3742826.663 438.53
   LOCATION L0000019     VOLUME   480454.682 3742826.672 438.53
   LOCATION L0000020     VOLUME   480463.273 3742826.681 438.52
   LOCATION L0000021     VOLUME   480471.864 3742826.690 438.50
   LOCATION L0000022     VOLUME   480480.455 3742826.698 438.49
   LOCATION L0000023     VOLUME   480489.045 3742826.707 438.48
   LOCATION L0000024     VOLUME   480497.636 3742826.716 438.46
   LOCATION L0000025     VOLUME   480506.227 3742826.725 438.45
   LOCATION L0000026     VOLUME   480514.818 3742826.733 438.43
   LOCATION L0000027     VOLUME   480523.409 3742826.742 438.42
   LOCATION L0000028     VOLUME   480531.999 3742826.751 438.41
   LOCATION L0000029     VOLUME   480540.590 3742826.760 438.39
   LOCATION L0000030     VOLUME   480549.181 3742826.768 438.38
   LOCATION L0000031     VOLUME   480557.772 3742826.777 438.38
   LOCATION L0000032     VOLUME   480566.362 3742826.786 438.38
   LOCATION L0000033     VOLUME   480574.953 3742826.795 438.39
   LOCATION L0000034     VOLUME   480583.544 3742826.804 438.39
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   LOCATION L0000035     VOLUME   480592.135 3742826.812 438.38
   LOCATION L0000036     VOLUME   480600.726 3742826.821 438.38
   LOCATION L0000037     VOLUME   480609.316 3742826.830 438.37
   LOCATION L0000038     VOLUME   480617.907 3742826.839 438.35
   LOCATION L0000039     VOLUME   480626.498 3742826.847 438.33
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Southern driveway onsite truck travel
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.0000203
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 8
** 480300.541, 3742614.791, 438.96, 3.50, 4.00
** 480315.248, 3742614.107, 439.02, 3.50, 4.00
** 480328.930, 3742609.660, 439.14, 3.50, 4.00
** 480343.295, 3742603.504, 439.41, 3.50, 4.00
** 480353.214, 3742600.768, 439.44, 3.50, 4.00
** 480369.290, 3742597.005, 439.43, 3.50, 4.00
** 480386.049, 3742597.347, 439.16, 3.50, 4.00
** 480623.763, 3742597.005, 438.19, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000040     VOLUME   480304.832 3742614.591 438.91
   LOCATION L0000041     VOLUME   480313.413 3742614.192 438.94
   LOCATION L0000042     VOLUME   480321.671 3742612.019 438.99
   LOCATION L0000043     VOLUME   480329.811 3742609.283 439.10
   LOCATION L0000044     VOLUME   480337.707 3742605.899 439.26
   LOCATION L0000045     VOLUME   480345.716 3742602.836 439.42
   LOCATION L0000046     VOLUME   480354.005 3742600.582 439.46
   LOCATION L0000047     VOLUME   480362.370 3742598.625 439.47
   LOCATION L0000048     VOLUME   480370.773 3742597.035 439.47
   LOCATION L0000049     VOLUME   480379.363 3742597.211 439.43
   LOCATION L0000050     VOLUME   480387.952 3742597.344 439.35
   LOCATION L0000051     VOLUME   480396.543 3742597.332 439.28
   LOCATION L0000052     VOLUME   480405.133 3742597.320 439.13
   LOCATION L0000053     VOLUME   480413.724 3742597.307 438.93
   LOCATION L0000054     VOLUME   480422.315 3742597.295 438.73
   LOCATION L0000055     VOLUME   480430.906 3742597.283 438.63
   LOCATION L0000056     VOLUME   480439.497 3742597.270 438.59
   LOCATION L0000057     VOLUME   480448.087 3742597.258 438.55
   LOCATION L0000058     VOLUME   480456.678 3742597.246 438.52
   LOCATION L0000059     VOLUME   480465.269 3742597.233 438.51
   LOCATION L0000060     VOLUME   480473.860 3742597.221 438.49
   LOCATION L0000061     VOLUME   480482.451 3742597.209 438.47
   LOCATION L0000062     VOLUME   480491.041 3742597.196 438.45
   LOCATION L0000063     VOLUME   480499.632 3742597.184 438.44
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   LOCATION L0000064     VOLUME   480508.223 3742597.171 438.41
   LOCATION L0000065     VOLUME   480516.814 3742597.159 438.39
   LOCATION L0000066     VOLUME   480525.405 3742597.147 438.37
   LOCATION L0000067     VOLUME   480533.995 3742597.134 438.35
   LOCATION L0000068     VOLUME   480542.586 3742597.122 438.32
   LOCATION L0000069     VOLUME   480551.177 3742597.110 438.30
   LOCATION L0000070     VOLUME   480559.768 3742597.097 438.28
   LOCATION L0000071     VOLUME   480568.359 3742597.085 438.26
   LOCATION L0000072     VOLUME   480576.949 3742597.073 438.24
   LOCATION L0000073     VOLUME   480585.540 3742597.060 438.23
   LOCATION L0000074     VOLUME   480594.131 3742597.048 438.21
   LOCATION L0000075     VOLUME   480602.722 3742597.035 438.19
   LOCATION L0000076     VOLUME   480611.312 3742597.023 438.17
   LOCATION L0000077     VOLUME   480619.903 3742597.011 438.16
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC Offsite travel along Wilson adjacent to site
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 3.8E-08
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 2
** 480288.465, 3742615.061, 438.89, 3.50, 4.00
** 480288.045, 3742825.538, 438.67, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000078     VOLUME   480288.456 3742619.356 438.85
   LOCATION L0000079     VOLUME   480288.439 3742627.947 438.83
   LOCATION L0000080     VOLUME   480288.422 3742636.538 438.82
   LOCATION L0000081     VOLUME   480288.405 3742645.128 438.83
   LOCATION L0000082     VOLUME   480288.388 3742653.719 438.85
   LOCATION L0000083     VOLUME   480288.370 3742662.310 438.87
   LOCATION L0000084     VOLUME   480288.353 3742670.901 438.88
   LOCATION L0000085     VOLUME   480288.336 3742679.492 438.87
   LOCATION L0000086     VOLUME   480288.319 3742688.082 438.87
   LOCATION L0000087     VOLUME   480288.302 3742696.673 438.86
   LOCATION L0000088     VOLUME   480288.285 3742705.264 438.84
   LOCATION L0000089     VOLUME   480288.268 3742713.855 438.83
   LOCATION L0000090     VOLUME   480288.250 3742722.445 438.81
   LOCATION L0000091     VOLUME   480288.233 3742731.036 438.79
   LOCATION L0000092     VOLUME   480288.216 3742739.627 438.75
   LOCATION L0000093     VOLUME   480288.199 3742748.218 438.72
   LOCATION L0000094     VOLUME   480288.182 3742756.809 438.68
   LOCATION L0000095     VOLUME   480288.165 3742765.399 438.66
   LOCATION L0000096     VOLUME   480288.148 3742773.990 438.65
   LOCATION L0000097     VOLUME   480288.130 3742782.581 438.63
   LOCATION L0000098     VOLUME   480288.113 3742791.172 438.62
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   LOCATION L0000099     VOLUME   480288.096 3742799.762 438.64
   LOCATION L0000100     VOLUME   480288.079 3742808.353 438.66
   LOCATION L0000101     VOLUME   480288.062 3742816.944 438.67
   LOCATION L0000102     VOLUME   480288.045 3742825.535 438.69
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Offsite travel along Wilson Ave to Rider St, then Redlands Ave
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 9.73E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 6
** 480288.046, 3742835.151, 438.68, 3.50, 4.00
** 480286.949, 3743342.322, 439.44, 3.50, 4.00
** 479887.827, 3743342.322, 440.41, 3.50, 4.00
** 479881.672, 3743361.260, 440.11, 3.50, 4.00
** 479890.668, 3743417.601, 439.70, 3.50, 4.00
** 479900.137, 3743451.217, 439.94, 3.50, 4.00
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   LOCATION L0000104     VOLUME   480288.018 3742848.038 438.73
   LOCATION L0000105     VOLUME   480288.000 3742856.628 438.73
   LOCATION L0000106     VOLUME   480287.981 3742865.219 438.73
   LOCATION L0000107     VOLUME   480287.962 3742873.810 438.74
   LOCATION L0000108     VOLUME   480287.944 3742882.401 438.74
   LOCATION L0000109     VOLUME   480287.925 3742890.992 438.75
   LOCATION L0000110     VOLUME   480287.907 3742899.582 438.76
   LOCATION L0000111     VOLUME   480287.888 3742908.173 438.77
   LOCATION L0000112     VOLUME   480287.870 3742916.764 438.79
   LOCATION L0000113     VOLUME   480287.851 3742925.355 438.81
   LOCATION L0000114     VOLUME   480287.832 3742933.945 438.83
   LOCATION L0000115     VOLUME   480287.814 3742942.536 438.85
   LOCATION L0000116     VOLUME   480287.795 3742951.127 438.87
   LOCATION L0000117     VOLUME   480287.777 3742959.718 438.89
   LOCATION L0000118     VOLUME   480287.758 3742968.309 438.90
   LOCATION L0000119     VOLUME   480287.739 3742976.899 438.93
   LOCATION L0000120     VOLUME   480287.721 3742985.490 438.97
   LOCATION L0000121     VOLUME   480287.702 3742994.081 439.01
   LOCATION L0000122     VOLUME   480287.684 3743002.672 439.06
   LOCATION L0000123     VOLUME   480287.665 3743011.262 439.07
   LOCATION L0000124     VOLUME   480287.647 3743019.853 439.08
   LOCATION L0000125     VOLUME   480287.628 3743028.444 439.09
   LOCATION L0000126     VOLUME   480287.609 3743037.035 439.10
   LOCATION L0000127     VOLUME   480287.591 3743045.626 439.13
   LOCATION L0000128     VOLUME   480287.572 3743054.216 439.16
   LOCATION L0000129     VOLUME   480287.554 3743062.807 439.19
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LOCATION L0000130     VOLUME   480287.535 3743071.398 439.20
LOCATION L0000131     VOLUME   480287.517 3743079.989 439.20
LOCATION L0000132     VOLUME   480287.498 3743088.579 439.20
LOCATION L0000133     VOLUME   480287.479 3743097.170 439.20
LOCATION L0000134     VOLUME   480287.461 3743105.761 439.19
LOCATION L0000135     VOLUME   480287.442 3743114.352 439.18
LOCATION L0000136     VOLUME   480287.424 3743122.943 439.17
LOCATION L0000137     VOLUME   480287.405 3743131.533 439.18
LOCATION L0000138     VOLUME   480287.387 3743140.124 439.20
LOCATION L0000139     VOLUME   480287.368 3743148.715 439.23
LOCATION L0000140     VOLUME   480287.349 3743157.306 439.25
LOCATION L0000141     VOLUME   480287.331 3743165.896 439.28
LOCATION L0000142     VOLUME   480287.312 3743174.487 439.31
LOCATION L0000143     VOLUME   480287.294 3743183.078 439.34
LOCATION L0000144     VOLUME   480287.275 3743191.669 439.37
LOCATION L0000145     VOLUME   480287.256 3743200.260 439.38
LOCATION L0000146     VOLUME   480287.238 3743208.850 439.39
LOCATION L0000147     VOLUME   480287.219 3743217.441 439.40
LOCATION L0000148     VOLUME   480287.201 3743226.032 439.39
LOCATION L0000149     VOLUME   480287.182 3743234.623 439.39
LOCATION L0000150     VOLUME   480287.164 3743243.213 439.38
LOCATION L0000151     VOLUME   480287.145 3743251.804 439.37
LOCATION L0000152     VOLUME   480287.126 3743260.395 439.37
LOCATION L0000153     VOLUME   480287.108 3743268.986 439.37
LOCATION L0000154     VOLUME   480287.089 3743277.577 439.37
LOCATION L0000155     VOLUME   480287.071 3743286.167 439.37
LOCATION L0000156     VOLUME   480287.052 3743294.758 439.37
LOCATION L0000157     VOLUME   480287.034 3743303.349 439.37
LOCATION L0000158     VOLUME   480287.015 3743311.940 439.37
LOCATION L0000159     VOLUME   480286.996 3743320.531 439.39
LOCATION L0000160     VOLUME   480286.978 3743329.121 439.41
LOCATION L0000161     VOLUME   480286.959 3743337.712 439.44
LOCATION L0000162     VOLUME   480282.969 3743342.322 439.46
LOCATION L0000163     VOLUME   480274.378 3743342.322 439.48
LOCATION L0000164     VOLUME   480265.787 3743342.322 439.48
LOCATION L0000165     VOLUME   480257.196 3743342.322 439.49
LOCATION L0000166     VOLUME   480248.605 3743342.322 439.49
LOCATION L0000167     VOLUME   480240.015 3743342.322 439.50
LOCATION L0000168     VOLUME   480231.424 3743342.322 439.52
LOCATION L0000169     VOLUME   480222.833 3743342.322 439.53
LOCATION L0000170     VOLUME   480214.242 3743342.322 439.56
LOCATION L0000171     VOLUME   480205.651 3743342.322 439.58
LOCATION L0000172     VOLUME   480197.061 3743342.322 439.60
LOCATION L0000173     VOLUME   480188.470 3743342.322 439.61
LOCATION L0000174     VOLUME   480179.879 3743342.322 439.62
LOCATION L0000175     VOLUME   480171.288 3743342.322 439.62
LOCATION L0000176     VOLUME   480162.697 3743342.322 439.63
LOCATION L0000177     VOLUME   480154.107 3743342.322 439.64
LOCATION L0000178     VOLUME   480145.516 3743342.322 439.65
LOCATION L0000179     VOLUME   480136.925 3743342.322 439.66
LOCATION L0000180     VOLUME   480128.334 3743342.322 439.67
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   LOCATION L0000181     VOLUME   480119.743 3743342.322 439.67
   LOCATION L0000182     VOLUME   480111.153 3743342.322 439.68
   LOCATION L0000183     VOLUME   480102.562 3743342.322 439.69
   LOCATION L0000184     VOLUME   480093.971 3743342.322 439.70
   LOCATION L0000185     VOLUME   480085.380 3743342.322 439.72
   LOCATION L0000186     VOLUME   480076.789 3743342.322 439.73
   LOCATION L0000187     VOLUME   480068.199 3743342.322 439.75
   LOCATION L0000188     VOLUME   480059.608 3743342.322 439.77
   LOCATION L0000189     VOLUME   480051.017 3743342.322 439.80
   LOCATION L0000190     VOLUME   480042.426 3743342.322 439.82
   LOCATION L0000191     VOLUME   480033.835 3743342.322 439.85
   LOCATION L0000192     VOLUME   480025.245 3743342.322 439.88
   LOCATION L0000193     VOLUME   480016.654 3743342.322 439.91
   LOCATION L0000194     VOLUME   480008.063 3743342.322 439.94
   LOCATION L0000195     VOLUME   479999.472 3743342.322 439.96
   LOCATION L0000196     VOLUME   479990.881 3743342.322 439.99
   LOCATION L0000197     VOLUME   479982.291 3743342.322 440.03
   LOCATION L0000198     VOLUME   479973.700 3743342.322 440.06
   LOCATION L0000199     VOLUME   479965.109 3743342.322 440.10
   LOCATION L0000200     VOLUME   479956.518 3743342.322 440.14
   LOCATION L0000201     VOLUME   479947.927 3743342.322 440.19
   LOCATION L0000202     VOLUME   479939.337 3743342.322 440.23
   LOCATION L0000203     VOLUME   479930.746 3743342.322 440.28
   LOCATION L0000204     VOLUME   479922.155 3743342.322 440.33
   LOCATION L0000205     VOLUME   479913.564 3743342.322 440.38
   LOCATION L0000206     VOLUME   479904.973 3743342.322 440.40
   LOCATION L0000207     VOLUME   479896.383 3743342.322 440.41
   LOCATION L0000208     VOLUME   479887.816 3743342.356 440.42
   LOCATION L0000209     VOLUME   479885.161 3743350.526 440.32
   LOCATION L0000210     VOLUME   479882.506 3743358.696 440.19
   LOCATION L0000211     VOLUME   479882.602 3743367.081 440.09
   LOCATION L0000212     VOLUME   479883.956 3743375.565 440.01
   LOCATION L0000213     VOLUME   479885.311 3743384.048 439.93
   LOCATION L0000214     VOLUME   479886.665 3743392.531 439.84
   LOCATION L0000215     VOLUME   479888.020 3743401.015 439.74
   LOCATION L0000216     VOLUME   479889.374 3743409.498 439.70
   LOCATION L0000217     VOLUME   479890.772 3743417.972 439.70
   LOCATION L0000218     VOLUME   479893.102 3743426.241 439.72
   LOCATION L0000219     VOLUME   479895.431 3743434.510 439.73
   LOCATION L0000220     VOLUME   479897.760 3743442.779 439.79
   LOCATION L0000221     VOLUME   479900.090 3743451.048 439.86
** End of LINE VOLUME Source ID = SLINE4
** Source Parameters **
   SRCPARAM STCK1         7.11E-06     3.500   366.000    51.816       0.1
   SRCPARAM STCK2         7.11E-06     3.500   366.000    51.816       0.1
   SRCPARAM STCK3         7.11E-06     3.500   366.000    51.816       0.1
   SRCPARAM STCK4         7.11E-06     3.500   366.000    51.816       0.1
   SRCPARAM STCK5         7.11E-06     3.500   366.000    51.816       0.1
   SRCPARAM STCK6         7.11E-06     3.500   366.000    51.816       0.1
   SRCPARAM STCK7         7.11E-06     3.500   366.000    51.816       0.1
   SRCPARAM STCK8         7.11E-06     3.500   366.000    51.816       0.1
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** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000001     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000002     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000003     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000004     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000005     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000006     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000007     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000008     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000009     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000010     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000011     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000012     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000013     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000014     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000015     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000016     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000017     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000018     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000019     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000020     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000021     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000022     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000023     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000024     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000025     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000026     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000027     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000028     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000029     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000030     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000031     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000032     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000033     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000034     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000035     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000036     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000037     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000038     0.00000008462      3.50      4.00      5.10
   SRCPARAM L0000039     0.00000008462      3.50      4.00      5.10
** ----------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000040     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000041     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000042     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000043     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000044     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000045     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000046     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000047     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000048     0.0000005342      3.50      4.00      1.63
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   SRCPARAM L0000049     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000050     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000051     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000052     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000053     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000054     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000055     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000056     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000057     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000058     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000059     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000060     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000061     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000062     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000063     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000064     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000065     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000066     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000067     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000068     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000069     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000070     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000071     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000072     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000073     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000074     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000075     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000076     0.0000005342      3.50      4.00      1.63
   SRCPARAM L0000077     0.0000005342      3.50      4.00      1.63
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000078     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000079     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000080     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000081     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000082     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000083     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000084     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000085     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000086     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000087     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000088     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000089     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000090     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000091     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000092     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000093     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000094     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000095     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000096     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000097     0.00000000152      3.50      4.00      1.63
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   SRCPARAM L0000098     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000099     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000100     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000101     0.00000000152      3.50      4.00      1.63
   SRCPARAM L0000102     0.00000000152      3.50      4.00      1.63
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000103     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000104     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000105     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000106     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000107     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000108     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000109     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000110     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000111     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000112     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000113     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000114     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000115     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000116     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000117     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000118     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000119     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000120     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000121     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000122     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000123     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000124     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000125     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000126     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000127     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000128     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000129     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000130     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000131     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000132     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000133     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000134     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000135     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000136     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000137     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000138     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000139     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000140     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000141     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000142     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000143     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000144     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000145     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000146     0.00000008176      3.50      4.00      1.63
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SRCPARAM L0000147     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000148     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000149     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000150     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000151     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000152     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000153     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000154     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000155     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000156     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000157     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000158     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000159     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000160     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000161     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000162     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000163     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000164     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000165     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000166     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000167     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000168     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000169     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000170     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000171     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000172     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000173     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000174     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000175     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000176     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000177     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000178     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000179     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000180     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000181     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000182     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000183     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000184     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000185     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000186     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000187     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000188     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000189     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000190     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000191     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000192     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000193     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000194     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000195     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000196     0.00000008176      3.50      4.00      1.63
SRCPARAM L0000197     0.00000008176      3.50      4.00      1.63
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   SRCPARAM L0000198     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000199     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000200     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000201     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000202     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000203     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000204     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000205     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000206     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000207     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000208     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000209     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000210     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000211     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000212     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000213     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000214     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000215     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000216     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000217     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000218     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000219     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000220     0.00000008176      3.50      4.00      1.63
   SRCPARAM L0000221     0.00000008176      3.50      4.00      1.63
** ------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK1           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK1           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK1           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK1           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK1           10.97    10.97    10.97    10.97    10.97    10.97

   BUILDHGT STCK2           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK2           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK2           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK2           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK2           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK2           10.97    10.97    10.97    10.97    10.97    10.97

   BUILDHGT STCK3           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK3           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK3           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK3           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK3           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK3           10.97    10.97    10.97    10.97    10.97    10.97

   BUILDHGT STCK4           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK4           10.97    10.97    10.97    10.97    10.97    10.97
   BUILDHGT STCK4           10.97    10.97    10.97    10.97    10.97    10.97
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BUILDHGT STCK4          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK4          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK4          10.97    10.97    10.97    10.97    10.97    10.97

BUILDHGT STCK5          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK5          10.97    10.97    10.97     0.00    10.97    10.97
BUILDHGT STCK5          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK5          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK5          10.97    10.97    10.97     0.00    10.97    10.97
BUILDHGT STCK5          10.97    10.97    10.97    10.97    10.97    10.97

BUILDHGT STCK6          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK6          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK6          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK6          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK6          10.97    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK6          10.97    10.97    10.97    10.97    10.97    10.97

BUILDHGT STCK7           0.00     0.00     0.00     0.00     0.00     0.00
BUILDHGT STCK7           0.00     0.00     0.00     0.00     0.00     0.00
BUILDHGT STCK7           0.00     0.00     0.00     0.00     0.00     0.00
BUILDHGT STCK7           0.00     0.00     0.00     0.00     0.00     0.00
BUILDHGT STCK7           0.00     0.00     0.00    10.97    10.97    10.97
BUILDHGT STCK7          10.97    10.97    10.97    10.97     0.00     0.00

BUILDHGT STCK8           0.00    10.97     0.00     0.00     0.00     0.00
BUILDHGT STCK8           0.00     0.00     0.00     0.00     0.00     0.00
BUILDHGT STCK8           0.00     0.00     0.00     0.00     0.00     0.00
BUILDHGT STCK8           0.00    10.97    10.97    10.97    10.97    10.97
BUILDHGT STCK8          10.97    10.97    10.97     0.00     0.00     0.00
BUILDHGT STCK8           0.00     0.00     0.00     0.00     0.00     0.00

BUILDWID STCK1         339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK1         290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK1         328.44   343.05   347.23   342.27   333.10   316.24
BUILDWID STCK1         339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK1         290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK1         328.44   343.05   347.23   342.27   333.10   316.24

BUILDWID STCK2         339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK2         290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK2         328.44   343.05   347.23   342.27   333.10   316.24
BUILDWID STCK2         339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK2         290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK2         328.44   343.05   347.23   342.27   333.10   316.24

BUILDWID STCK3         339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK3         290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK3         328.44   343.05   347.23   342.27   333.10   316.24
BUILDWID STCK3         339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK3         290.04   246.57   199.09   228.01   270.04   303.86
```

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BUILDWID STCK3          328.44   343.05   347.23   342.27   333.10   316.24

BUILDWID STCK4          339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK4          290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK4          328.44   343.05   347.23   342.27   333.10   316.24
BUILDWID STCK4          339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK4          290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK4          328.44   343.05   347.23   342.27   333.10   316.24

BUILDWID STCK5          339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK5          290.04   246.57   199.09     0.00   270.04   303.86
BUILDWID STCK5          328.44   343.05   347.23   342.27   333.10   316.24
BUILDWID STCK5          339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK5          290.04   246.57   199.09     0.00   270.04   303.86
BUILDWID STCK5          328.44   343.05   347.23   342.27   333.10   316.24

BUILDWID STCK6          339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK6          290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK6          328.44   343.05   347.23   342.27   333.10   316.24
BUILDWID STCK6          339.87   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK6          290.04   246.57   199.09   228.01   270.04   303.86
BUILDWID STCK6          328.44   343.05   347.23   342.27   333.10   316.24

BUILDWID STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDWID STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDWID STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDWID STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDWID STCK7            0.00     0.00     0.00   228.01   270.04   303.86
BUILDWID STCK7          328.44   343.05   347.23   342.27     0.00     0.00

BUILDWID STCK8            0.00   358.79     0.00     0.00     0.00     0.00
BUILDWID STCK8            0.00     0.00     0.00     0.00     0.00     0.00
BUILDWID STCK8            0.00     0.00     0.00     0.00     0.00     0.00
BUILDWID STCK8            0.00   358.79   366.80   363.68   349.50   324.70
BUILDWID STCK8          290.04   246.57   199.09     0.00     0.00     0.00
BUILDWID STCK8            0.00     0.00     0.00     0.00     0.00     0.00

BUILDLEN STCK1          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK1          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK1          363.68   349.50   324.70   290.04   246.57   199.09
BUILDLEN STCK1          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK1          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK1          363.68   349.50   324.70   290.04   246.57   199.09

BUILDLEN STCK2          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK2          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK2          363.68   349.50   324.70   290.04   246.57   199.09
BUILDLEN STCK2          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK2          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK2          363.68   349.50   324.70   290.04   246.57   199.09
```

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BUILDLEN STCK3          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK3          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK3          363.68   349.50   324.70   290.04   246.57   199.09
BUILDLEN STCK3          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK3          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK3          363.68   349.50   324.70   290.04   246.57   199.09

BUILDLEN STCK4          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK4          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK4          363.68   349.50   324.70   290.04   246.57   199.09
BUILDLEN STCK4          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK4          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK4          363.68   349.50   324.70   290.04   246.57   199.09

BUILDLEN STCK5          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK5          342.27   333.10   316.24     0.00   358.79   366.80
BUILDLEN STCK5          363.68   349.50   324.70   290.04   246.57   199.09
BUILDLEN STCK5          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK5          342.27   333.10   316.24     0.00   358.79   366.80
BUILDLEN STCK5          363.68   349.50   324.70   290.04   246.57   199.09

BUILDLEN STCK6          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK6          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK6          363.68   349.50   324.70   290.04   246.57   199.09
BUILDLEN STCK6          228.01   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK6          342.27   333.10   316.24   339.87   358.79   366.80
BUILDLEN STCK6          363.68   349.50   324.70   290.04   246.57   199.09

BUILDLEN STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDLEN STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDLEN STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDLEN STCK7            0.00     0.00     0.00     0.00     0.00     0.00
BUILDLEN STCK7            0.00     0.00     0.00   339.87   358.79   366.80
BUILDLEN STCK7          363.68   349.50   324.70   290.04     0.00     0.00

BUILDLEN STCK8            0.00   270.04     0.00     0.00     0.00     0.00
BUILDLEN STCK8            0.00     0.00     0.00     0.00     0.00     0.00
BUILDLEN STCK8            0.00     0.00     0.00     0.00     0.00     0.00
BUILDLEN STCK8            0.00   270.04   303.86   328.44   343.05   347.23
BUILDLEN STCK8          342.27   333.10   316.24     0.00     0.00     0.00
BUILDLEN STCK8            0.00     0.00     0.00     0.00     0.00     0.00

XBADJ    STCK1          -29.54   -56.26   -81.26  -103.80  -123.18  -138.82
XBADJ    STCK1         -150.24  -157.10  -161.15  -190.10  -215.70  -234.75
XBADJ    STCK1         -246.66  -251.08  -247.87  -237.13  -219.19  -195.34
XBADJ    STCK1         -198.47  -213.78  -222.59  -224.64  -219.87  -208.41
XBADJ    STCK1         -192.03  -176.00  -155.09  -149.77  -143.09  -132.06
XBADJ    STCK1         -117.02   -98.42   -76.83   -52.91   -27.38    -3.75

XBADJ    STCK2          -15.01   -29.54   -43.17   -55.49   -66.12   -74.74
XBADJ    STCK2          -81.10   -84.98   -88.26  -118.64  -147.85  -172.57
```

XBADJ	STCK2	-192.04	-205.68	-213.07	-213.99	-208.40	-197.24
XBADJ	STCK2	-213.00	-240.50	-260.68	-272.95	-276.93	-272.49
XBADJ	STCK2	-261.17	-248.12	-227.98	-221.22	-210.93	-194.23
XBADJ	STCK2	-171.63	-143.82	-111.63	-76.06	-38.17	-1.85
XBADJ	STCK3	-39.89	-78.07	-113.87	-146.22	-174.12	-196.73
XBADJ	STCK3	-213.37	-223.52	-228.85	-257.02	-279.80	-294.09
XBADJ	STCK3	-299.44	-295.69	-282.96	-261.63	-232.35	-196.77
XBADJ	STCK3	-188.12	-191.97	-189.98	-182.22	-168.93	-150.50
XBADJ	STCK3	-128.90	-109.58	-87.39	-82.85	-78.98	-72.71
XBADJ	STCK3	-64.24	-53.81	-41.74	-28.41	-14.22	-2.32
XBADJ	STCK4	-205.83	-211.54	-210.83	-203.70	-190.39	-171.29
XBADJ	STCK4	-146.99	-118.22	-87.83	-84.56	-81.15	-75.28
XBADJ	STCK4	-67.12	-56.92	-44.99	-31.69	-17.43	-3.40
XBADJ	STCK4	-22.18	-58.49	-93.03	-124.74	-152.66	-175.94
XBADJ	STCK4	-195.28	-214.88	-228.41	-255.31	-277.63	-291.53
XBADJ	STCK4	-296.56	-292.58	-279.72	-258.35	-229.14	-195.69
XBADJ	STCK5	-233.79	-266.26	-290.64	-306.19	-312.44	-309.19
XBADJ	STCK5	-296.55	-274.90	-246.87	0.00	-230.49	-212.84
XBADJ	STCK5	-188.73	-158.88	-124.21	-85.76	-44.71	-3.06
XBADJ	STCK5	5.77	-3.78	-13.21	-22.25	-30.61	-38.04
XBADJ	STCK5	-45.71	-58.20	-69.37	0.00	-128.30	-153.96
XBADJ	STCK5	-174.95	-190.62	-200.49	-204.28	-201.86	-196.03
XBADJ	STCK6	-221.85	-241.73	-254.25	-259.05	-255.99	-245.14
XBADJ	STCK6	-226.84	-201.66	-172.31	-167.52	-160.07	-147.76
XBADJ	STCK6	-130.95	-110.17	-86.04	-59.30	-30.75	-2.03
XBADJ	STCK6	-6.16	-28.31	-49.60	-69.39	-87.06	-102.09
XBADJ	STCK6	-115.43	-131.44	-143.93	-172.35	-198.72	-219.05
XBADJ	STCK6	-232.73	-239.33	-238.66	-230.75	-215.82	-197.06
XBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
XBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
XBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
XBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
XBADJ	STCK7	0.00	0.00	0.00	-392.59	-412.09	-419.06
XBADJ	STCK7	-413.31	-394.99	-364.68	-323.28	0.00	0.00
XBADJ	STCK8	0.00	15.53	0.00	0.00	0.00	0.00
XBADJ	STCK8	0.00	0.00	0.00	0.00	0.00	0.00
XBADJ	STCK8	0.00	0.00	0.00	0.00	0.00	0.00
XBADJ	STCK8	0.00	-285.57	-327.21	-358.92	-379.72	-388.98
XBADJ	STCK8	-387.83	-381.08	-363.22	0.00	0.00	0.00
XBADJ	STCK8	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	STCK1	20.16	36.31	51.34	64.82	76.33	85.52
YBADJ	STCK1	92.11	95.90	95.79	84.46	78.76	70.67
YBADJ	STCK1	60.42	48.35	34.80	20.89	9.45	-3.03
YBADJ	STCK1	-20.16	-36.31	-51.34	-64.82	-76.33	-85.52

YBADJ	STCK1	-92.11	-95.90	-95.79	-84.46	-78.76	-70.67
YBADJ	STCK1	-60.42	-48.35	-34.80	-20.89	-9.45	3.03
YBADJ	STCK2	-51.29	-31.54	-10.83	10.21	30.93	50.72
YBADJ	STCK2	68.97	85.12	97.69	98.99	105.48	108.76
YBADJ	STCK2	108.73	105.40	98.87	90.04	81.57	69.86
YBADJ	STCK2	51.29	31.54	10.83	-10.21	-30.93	-50.72
YBADJ	STCK2	-68.97	-85.12	-97.69	-98.99	-105.48	-108.76
YBADJ	STCK2	-108.73	-105.40	-98.87	-90.04	-81.57	-69.86
YBADJ	STCK3	87.08	100.41	110.69	117.60	120.94	120.61
YBADJ	STCK3	116.61	109.07	97.22	74.12	56.95	38.05
YBADJ	STCK3	18.00	-2.60	-23.12	-42.23	-56.97	-70.73
YBADJ	STCK3	-87.08	-100.41	-110.69	-117.60	-120.94	-120.61
YBADJ	STCK3	-116.61	-109.07	-97.22	-74.12	-56.95	-38.05
YBADJ	STCK3	-18.00	2.60	23.12	42.23	56.97	70.73
YBADJ	STCK4	-85.37	-98.24	-108.12	-114.72	-117.83	-117.37
YBADJ	STCK4	-113.33	-105.85	-96.15	-91.83	-76.53	-58.90
YBADJ	STCK4	-39.48	-18.87	2.32	24.14	48.33	70.29
YBADJ	STCK4	85.37	98.24	108.12	114.72	117.83	117.37
YBADJ	STCK4	113.33	105.85	96.15	91.83	76.53	58.90
YBADJ	STCK4	39.48	18.87	-2.32	-24.14	-48.33	-70.29
YBADJ	STCK5	71.19	51.09	29.44	6.89	-15.87	-38.14
YBADJ	STCK5	-59.26	-78.57	-96.49	0.00	-131.24	-138.71
YBADJ	STCK5	-141.97	-140.92	-135.58	-125.42	-108.35	-88.75
YBADJ	STCK5	-71.19	-51.09	-29.44	-6.89	15.87	38.14
YBADJ	STCK5	59.26	78.57	96.49	0.00	131.24	138.71
YBADJ	STCK5	141.97	140.92	135.58	125.42	108.35	88.75
YBADJ	STCK6	-2.41	-19.32	-35.65	-50.89	-64.58	-76.31
YBADJ	STCK6	-85.73	-92.53	-97.52	-107.85	-106.71	-102.33
YBADJ	STCK6	-94.83	-84.46	-71.52	-55.71	-35.11	-14.19
YBADJ	STCK6	2.41	19.32	35.65	50.89	64.58	76.31
YBADJ	STCK6	85.73	92.53	97.52	107.85	106.71	102.33
YBADJ	STCK6	94.83	84.46	71.52	55.71	35.11	14.19
YBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	STCK7	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	STCK7	0.00	0.00	0.00	87.54	48.47	7.92
YBADJ	STCK7	-32.87	-72.66	-110.24	-145.18	0.00	0.00
YBADJ	STCK8	0.00	-159.05	0.00	0.00	0.00	0.00
YBADJ	STCK8	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	STCK8	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	STCK8	0.00	159.05	128.58	94.20	56.96	17.99
YBADJ	STCK8	-21.53	-60.39	-96.44	0.00	0.00	0.00
YBADJ	STCK8	0.00	0.00	0.00	0.00	0.00	0.00

```
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "19484 Placentia Avenue Industrial.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "E:\New MET data\PERI_V9_ADJU\PERI_v9.SFC"
   PROFFILE "E:\New MET data\PERI_V9_ADJU\PERI_v9.PFL"
   SURFDATA 3171 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "19484 Placentia Avenue Industrial.AD\PE00GALL.PLT" 31
   SUMMFILE "19484 Placentia Avenue Industrial.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of           10 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***
```

```
   ********   WARNING MESSAGES   ********
SO W320     349        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     350        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     351        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     352        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     353        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     354        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     355        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     356        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
ME W186     893       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187     893       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

***********************************
*** SETUP Finishes Successfully ***
***********************************


*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                 ***        18:43:44
                                                                                                                PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

** Model Options Selected:
     * Model Uses Regulatory DEFAULT Options
     * Model Is Setup For Calculation of Average CONCentration Values.
     * NO GAS DEPOSITION Data Provided.
     * NO PARTICLE DEPOSITION Data Provided.
     * Model Uses NO DRY DEPLETION. DDPLETE  =  F
     * Model Uses NO WET DEPLETION. WETDPLT  =  F
     * Stack-tip Downwash.
     * Model Accounts for ELEVated Terrain Effects.
     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses URBAN Dispersion Algorithm for the SBL for   229 Source(s),
       for Total of    1 Urban Area(s):
  Urban Population =   2189641.0 ;  Urban Roughness Length =  1.000 m
     * Urban Roughness Length of 1.0 Meter Used.
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * CCVR_Sub - Meteorological data includes CCVR substitutions
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only
```

```
**This Run Includes:    229 Source(s);       1 Source Group(s); and     447 Receptor(s)

               with:      8 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    221 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                and:      0 SWPOINT source(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  16216

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      4.0 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   19484 Placentia Avenue Industrial.err
**File for Summary of Results:   19484 Placentia Avenue Industrial.sum

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                    ***        18:43:44
                                                                                                                    PAGE   2
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                              *** POINT SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
  SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
    ID        CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                      VARY BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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STCK1	0	0.71100E-05	480511.4	3742614.7	438.4	3.50	366.00	51.82	0.10	YES	YES	NO	
STCK2	0	0.71100E-05	480438.5	3742612.8	438.6	3.50	366.00	51.82	0.10	YES	YES	NO	
STCK3	0	0.71100E-05	480579.1	3742613.3	438.3	3.50	366.00	51.82	0.10	YES	YES	NO	
STCK4	0	0.71100E-05	480438.1	3742806.7	438.5	3.50	366.00	51.82	0.10	YES	YES	NO	
STCK5	0	0.71100E-05	480597.1	3742807.0	438.4	3.50	366.00	51.82	0.10	YES	YES	NO	
STCK6	0	0.71100E-05	480522.5	3742808.0	438.4	3.50	366.00	51.82	0.10	YES	YES	NO	
STCK7	0	0.71100E-05	480302.1	3742826.3	438.7	3.50	366.00	51.82	0.10	YES	YES	NO	
STCK8	0	0.71100E-05	480303.2	3742614.1	438.9	3.50	366.00	51.82	0.10	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.84620E-07	480300.0	3742826.5	438.7	3.50	4.00	5.10	YES	
L0000002	0	0.84620E-07	480308.6	3742826.5	438.7	3.50	4.00	5.10	YES	
L0000003	0	0.84620E-07	480317.2	3742826.5	438.7	3.50	4.00	5.10	YES	
L0000004	0	0.84620E-07	480325.8	3742826.5	438.7	3.50	4.00	5.10	YES	
L0000005	0	0.84620E-07	480334.4	3742826.5	438.6	3.50	4.00	5.10	YES	
L0000006	0	0.84620E-07	480343.0	3742826.6	438.6	3.50	4.00	5.10	YES	
L0000007	0	0.84620E-07	480351.6	3742826.6	438.6	3.50	4.00	5.10	YES	
L0000008	0	0.84620E-07	480360.2	3742826.6	438.6	3.50	4.00	5.10	YES	
L0000009	0	0.84620E-07	480368.8	3742826.6	438.6	3.50	4.00	5.10	YES	
L0000010	0	0.84620E-07	480377.4	3742826.6	438.6	3.50	4.00	5.10	YES	
L0000011	0	0.84620E-07	480386.0	3742826.6	438.6	3.50	4.00	5.10	YES	
L0000012	0	0.84620E-07	480394.5	3742826.6	438.5	3.50	4.00	5.10	YES	
L0000013	0	0.84620E-07	480403.1	3742826.6	438.5	3.50	4.00	5.10	YES	
L0000014	0	0.84620E-07	480411.7	3742826.6	438.5	3.50	4.00	5.10	YES	
L0000015	0	0.84620E-07	480420.3	3742826.6	438.5	3.50	4.00	5.10	YES	
L0000016	0	0.84620E-07	480428.9	3742826.6	438.5	3.50	4.00	5.10	YES	
L0000017	0	0.84620E-07	480437.5	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000018	0	0.84620E-07	480446.1	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000019	0	0.84620E-07	480454.7	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000020	0	0.84620E-07	480463.3	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000021	0	0.84620E-07	480471.9	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000022	0	0.84620E-07	480480.5	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000023	0	0.84620E-07	480489.0	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000024	0	0.84620E-07	480497.6	3742826.7	438.5	3.50	4.00	5.10	YES	
L0000025	0	0.84620E-07	480506.2	3742826.7	438.4	3.50	4.00	5.10	YES	
L0000026	0	0.84620E-07	480514.8	3742826.7	438.4	3.50	4.00	5.10	YES	
L0000027	0	0.84620E-07	480523.4	3742826.7	438.4	3.50	4.00	5.10	YES	
L0000028	0	0.84620E-07	480532.0	3742826.8	438.4	3.50	4.00	5.10	YES	
L0000029	0	0.84620E-07	480540.6	3742826.8	438.4	3.50	4.00	5.10	YES	

L0000030	0	0.84620E-07	480549.2	3742826.8	438.4	3.50	4.00	5.10	YES
L0000031	0	0.84620E-07	480557.8	3742826.8	438.4	3.50	4.00	5.10	YES
L0000032	0	0.84620E-07	480566.4	3742826.8	438.4	3.50	4.00	5.10	YES
L0000033	0	0.84620E-07	480575.0	3742826.8	438.4	3.50	4.00	5.10	YES
L0000034	0	0.84620E-07	480583.5	3742826.8	438.4	3.50	4.00	5.10	YES
L0000035	0	0.84620E-07	480592.1	3742826.8	438.4	3.50	4.00	5.10	YES
L0000036	0	0.84620E-07	480600.7	3742826.8	438.4	3.50	4.00	5.10	YES
L0000037	0	0.84620E-07	480609.3	3742826.8	438.4	3.50	4.00	5.10	YES
L0000038	0	0.84620E-07	480617.9	3742826.8	438.4	3.50	4.00	5.10	YES
L0000039	0	0.84620E-07	480626.5	3742826.8	438.3	3.50	4.00	5.10	YES
L0000040	0	0.53420E-06	480304.8	3742614.6	438.9	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000041	0	0.53420E-06	480313.4	3742614.2	438.9	3.50	4.00	1.63	YES	
L0000042	0	0.53420E-06	480321.7	3742612.0	439.0	3.50	4.00	1.63	YES	
L0000043	0	0.53420E-06	480329.8	3742609.3	439.1	3.50	4.00	1.63	YES	
L0000044	0	0.53420E-06	480337.7	3742605.9	439.3	3.50	4.00	1.63	YES	
L0000045	0	0.53420E-06	480345.7	3742602.8	439.4	3.50	4.00	1.63	YES	
L0000046	0	0.53420E-06	480354.0	3742600.6	439.5	3.50	4.00	1.63	YES	
L0000047	0	0.53420E-06	480362.4	3742598.6	439.5	3.50	4.00	1.63	YES	
L0000048	0	0.53420E-06	480370.8	3742597.0	439.5	3.50	4.00	1.63	YES	
L0000049	0	0.53420E-06	480379.4	3742597.2	439.4	3.50	4.00	1.63	YES	
L0000050	0	0.53420E-06	480388.0	3742597.3	439.4	3.50	4.00	1.63	YES	
L0000051	0	0.53420E-06	480396.5	3742597.3	439.3	3.50	4.00	1.63	YES	
L0000052	0	0.53420E-06	480405.1	3742597.3	439.1	3.50	4.00	1.63	YES	
L0000053	0	0.53420E-06	480413.7	3742597.3	438.9	3.50	4.00	1.63	YES	
L0000054	0	0.53420E-06	480422.3	3742597.3	438.7	3.50	4.00	1.63	YES	
L0000055	0	0.53420E-06	480430.9	3742597.3	438.6	3.50	4.00	1.63	YES	
L0000056	0	0.53420E-06	480439.5	3742597.3	438.6	3.50	4.00	1.63	YES	
L0000057	0	0.53420E-06	480448.1	3742597.3	438.6	3.50	4.00	1.63	YES	
L0000058	0	0.53420E-06	480456.7	3742597.2	438.5	3.50	4.00	1.63	YES	
L0000059	0	0.53420E-06	480465.3	3742597.2	438.5	3.50	4.00	1.63	YES	
L0000060	0	0.53420E-06	480473.9	3742597.2	438.5	3.50	4.00	1.63	YES	
L0000061	0	0.53420E-06	480482.5	3742597.2	438.5	3.50	4.00	1.63	YES	
L0000062	0	0.53420E-06	480491.0	3742597.2	438.4	3.50	4.00	1.63	YES	
L0000063	0	0.53420E-06	480499.6	3742597.2	438.4	3.50	4.00	1.63	YES	
L0000064	0	0.53420E-06	480508.2	3742597.2	438.4	3.50	4.00	1.63	YES	
L0000065	0	0.53420E-06	480516.8	3742597.2	438.4	3.50	4.00	1.63	YES	
L0000066	0	0.53420E-06	480525.4	3742597.1	438.4	3.50	4.00	1.63	YES	

L0000067	0	0.53420E-06	480534.0	3742597.1	438.4	3.50	4.00	1.63	YES
L0000068	0	0.53420E-06	480542.6	3742597.1	438.3	3.50	4.00	1.63	YES
L0000069	0	0.53420E-06	480551.2	3742597.1	438.3	3.50	4.00	1.63	YES
L0000070	0	0.53420E-06	480559.8	3742597.1	438.3	3.50	4.00	1.63	YES
L0000071	0	0.53420E-06	480568.4	3742597.1	438.3	3.50	4.00	1.63	YES
L0000072	0	0.53420E-06	480576.9	3742597.1	438.2	3.50	4.00	1.63	YES
L0000073	0	0.53420E-06	480585.5	3742597.1	438.2	3.50	4.00	1.63	YES
L0000074	0	0.53420E-06	480594.1	3742597.0	438.2	3.50	4.00	1.63	YES
L0000075	0	0.53420E-06	480602.7	3742597.0	438.2	3.50	4.00	1.63	YES
L0000076	0	0.53420E-06	480611.3	3742597.0	438.2	3.50	4.00	1.63	YES
L0000077	0	0.53420E-06	480619.9	3742597.0	438.2	3.50	4.00	1.63	YES
L0000078	0	0.15200E-08	480288.5	3742619.4	438.9	3.50	4.00	1.63	YES
L0000079	0	0.15200E-08	480288.4	3742627.9	438.8	3.50	4.00	1.63	YES
L0000080	0	0.15200E-08	480288.4	3742636.5	438.8	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000081	0	0.15200E-08	480288.4	3742645.1	438.8	3.50	4.00	1.63	YES	
L0000082	0	0.15200E-08	480288.4	3742653.7	438.9	3.50	4.00	1.63	YES	
L0000083	0	0.15200E-08	480288.4	3742662.3	438.9	3.50	4.00	1.63	YES	
L0000084	0	0.15200E-08	480288.4	3742670.9	438.9	3.50	4.00	1.63	YES	
L0000085	0	0.15200E-08	480288.3	3742679.5	438.9	3.50	4.00	1.63	YES	
L0000086	0	0.15200E-08	480288.3	3742688.1	438.9	3.50	4.00	1.63	YES	
L0000087	0	0.15200E-08	480288.3	3742696.7	438.9	3.50	4.00	1.63	YES	
L0000088	0	0.15200E-08	480288.3	3742705.3	438.8	3.50	4.00	1.63	YES	
L0000089	0	0.15200E-08	480288.3	3742713.9	438.8	3.50	4.00	1.63	YES	
L0000090	0	0.15200E-08	480288.2	3742722.4	438.8	3.50	4.00	1.63	YES	
L0000091	0	0.15200E-08	480288.2	3742731.0	438.8	3.50	4.00	1.63	YES	
L0000092	0	0.15200E-08	480288.2	3742739.6	438.8	3.50	4.00	1.63	YES	
L0000093	0	0.15200E-08	480288.2	3742748.2	438.7	3.50	4.00	1.63	YES	
L0000094	0	0.15200E-08	480288.2	3742756.8	438.7	3.50	4.00	1.63	YES	
L0000095	0	0.15200E-08	480288.2	3742765.4	438.7	3.50	4.00	1.63	YES	
L0000096	0	0.15200E-08	480288.1	3742774.0	438.7	3.50	4.00	1.63	YES	
L0000097	0	0.15200E-08	480288.1	3742782.6	438.6	3.50	4.00	1.63	YES	
L0000098	0	0.15200E-08	480288.1	3742791.2	438.6	3.50	4.00	1.63	YES	
L0000099	0	0.15200E-08	480288.1	3742799.8	438.6	3.50	4.00	1.63	YES	
L0000100	0	0.15200E-08	480288.1	3742808.4	438.7	3.50	4.00	1.63	YES	
L0000101	0	0.15200E-08	480288.1	3742816.9	438.7	3.50	4.00	1.63	YES	
L0000102	0	0.15200E-08	480288.0	3742825.5	438.7	3.50	4.00	1.63	YES	
L0000103	0	0.81760E-07	480288.0	3742839.4	438.7	3.50	4.00	1.63	YES	

L0000104	0	0.81760E-07	480288.0	3742848.0	438.7	3.50	4.00	1.63	YES	
L0000105	0	0.81760E-07	480288.0	3742856.6	438.7	3.50	4.00	1.63	YES	
L0000106	0	0.81760E-07	480288.0	3742865.2	438.7	3.50	4.00	1.63	YES	
L0000107	0	0.81760E-07	480288.0	3742873.8	438.7	3.50	4.00	1.63	YES	
L0000108	0	0.81760E-07	480287.9	3742882.4	438.7	3.50	4.00	1.63	YES	
L0000109	0	0.81760E-07	480287.9	3742891.0	438.8	3.50	4.00	1.63	YES	
L0000110	0	0.81760E-07	480287.9	3742899.6	438.8	3.50	4.00	1.63	YES	
L0000111	0	0.81760E-07	480287.9	3742908.2	438.8	3.50	4.00	1.63	YES	
L0000112	0	0.81760E-07	480287.9	3742916.8	438.8	3.50	4.00	1.63	YES	
L0000113	0	0.81760E-07	480287.9	3742925.4	438.8	3.50	4.00	1.63	YES	
L0000114	0	0.81760E-07	480287.8	3742933.9	438.8	3.50	4.00	1.63	YES	
L0000115	0	0.81760E-07	480287.8	3742942.5	438.9	3.50	4.00	1.63	YES	
L0000116	0	0.81760E-07	480287.8	3742951.1	438.9	3.50	4.00	1.63	YES	
L0000117	0	0.81760E-07	480287.8	3742959.7	438.9	3.50	4.00	1.63	YES	
L0000118	0	0.81760E-07	480287.8	3742968.3	438.9	3.50	4.00	1.63	YES	
L0000119	0	0.81760E-07	480287.7	3742976.9	438.9	3.50	4.00	1.63	YES	
L0000120	0	0.81760E-07	480287.7	3742985.5	439.0	3.50	4.00	1.63	YES	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000121	0	0.81760E-07	480287.7	3742994.1	439.0	3.50	4.00	1.63	YES	
L0000122	0	0.81760E-07	480287.7	3743002.7	439.1	3.50	4.00	1.63	YES	
L0000123	0	0.81760E-07	480287.7	3743011.3	439.1	3.50	4.00	1.63	YES	
L0000124	0	0.81760E-07	480287.6	3743019.9	439.1	3.50	4.00	1.63	YES	
L0000125	0	0.81760E-07	480287.6	3743028.4	439.1	3.50	4.00	1.63	YES	
L0000126	0	0.81760E-07	480287.6	3743037.0	439.1	3.50	4.00	1.63	YES	
L0000127	0	0.81760E-07	480287.6	3743045.6	439.1	3.50	4.00	1.63	YES	
L0000128	0	0.81760E-07	480287.6	3743054.2	439.2	3.50	4.00	1.63	YES	
L0000129	0	0.81760E-07	480287.6	3743062.8	439.2	3.50	4.00	1.63	YES	
L0000130	0	0.81760E-07	480287.5	3743071.4	439.2	3.50	4.00	1.63	YES	
L0000131	0	0.81760E-07	480287.5	3743080.0	439.2	3.50	4.00	1.63	YES	
L0000132	0	0.81760E-07	480287.5	3743088.6	439.2	3.50	4.00	1.63	YES	
L0000133	0	0.81760E-07	480287.5	3743097.2	439.2	3.50	4.00	1.63	YES	
L0000134	0	0.81760E-07	480287.5	3743105.8	439.2	3.50	4.00	1.63	YES	
L0000135	0	0.81760E-07	480287.4	3743114.4	439.2	3.50	4.00	1.63	YES	
L0000136	0	0.81760E-07	480287.4	3743122.9	439.2	3.50	4.00	1.63	YES	
L0000137	0	0.81760E-07	480287.4	3743131.5	439.2	3.50	4.00	1.63	YES	
L0000138	0	0.81760E-07	480287.4	3743140.1	439.2	3.50	4.00	1.63	YES	
L0000139	0	0.81760E-07	480287.4	3743148.7	439.2	3.50	4.00	1.63	YES	
L0000140	0	0.81760E-07	480287.3	3743157.3	439.2	3.50	4.00	1.63	YES	

L0000141	0	0.81760E-07	480287.3	3743165.9	439.3	3.50	4.00	1.63	YES
L0000142	0	0.81760E-07	480287.3	3743174.5	439.3	3.50	4.00	1.63	YES
L0000143	0	0.81760E-07	480287.3	3743183.1	439.3	3.50	4.00	1.63	YES
L0000144	0	0.81760E-07	480287.3	3743191.7	439.4	3.50	4.00	1.63	YES
L0000145	0	0.81760E-07	480287.3	3743200.3	439.4	3.50	4.00	1.63	YES
L0000146	0	0.81760E-07	480287.2	3743208.8	439.4	3.50	4.00	1.63	YES
L0000147	0	0.81760E-07	480287.2	3743217.4	439.4	3.50	4.00	1.63	YES
L0000148	0	0.81760E-07	480287.2	3743226.0	439.4	3.50	4.00	1.63	YES
L0000149	0	0.81760E-07	480287.2	3743234.6	439.4	3.50	4.00	1.63	YES
L0000150	0	0.81760E-07	480287.2	3743243.2	439.4	3.50	4.00	1.63	YES
L0000151	0	0.81760E-07	480287.1	3743251.8	439.4	3.50	4.00	1.63	YES
L0000152	0	0.81760E-07	480287.1	3743260.4	439.4	3.50	4.00	1.63	YES
L0000153	0	0.81760E-07	480287.1	3743269.0	439.4	3.50	4.00	1.63	YES
L0000154	0	0.81760E-07	480287.1	3743277.6	439.4	3.50	4.00	1.63	YES
L0000155	0	0.81760E-07	480287.1	3743286.2	439.4	3.50	4.00	1.63	YES
L0000156	0	0.81760E-07	480287.1	3743294.8	439.4	3.50	4.00	1.63	YES
L0000157	0	0.81760E-07	480287.0	3743303.3	439.4	3.50	4.00	1.63	YES
L0000158	0	0.81760E-07	480287.0	3743311.9	439.4	3.50	4.00	1.63	YES
L0000159	0	0.81760E-07	480287.0	3743320.5	439.4	3.50	4.00	1.63	YES
L0000160	0	0.81760E-07	480287.0	3743329.1	439.4	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000161	0	0.81760E-07	480287.0	3743337.7	439.4	3.50	4.00	1.63	YES	
L0000162	0	0.81760E-07	480283.0	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000163	0	0.81760E-07	480274.4	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000164	0	0.81760E-07	480265.8	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000165	0	0.81760E-07	480257.2	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000166	0	0.81760E-07	480248.6	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000167	0	0.81760E-07	480240.0	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000168	0	0.81760E-07	480231.4	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000169	0	0.81760E-07	480222.8	3743342.3	439.5	3.50	4.00	1.63	YES	
L0000170	0	0.81760E-07	480214.2	3743342.3	439.6	3.50	4.00	1.63	YES	
L0000171	0	0.81760E-07	480205.7	3743342.3	439.6	3.50	4.00	1.63	YES	
L0000172	0	0.81760E-07	480197.1	3743342.3	439.6	3.50	4.00	1.63	YES	
L0000173	0	0.81760E-07	480188.5	3743342.3	439.6	3.50	4.00	1.63	YES	
L0000174	0	0.81760E-07	480179.9	3743342.3	439.6	3.50	4.00	1.63	YES	
L0000175	0	0.81760E-07	480171.3	3743342.3	439.6	3.50	4.00	1.63	YES	
L0000176	0	0.81760E-07	480162.7	3743342.3	439.6	3.50	4.00	1.63	YES	
L0000177	0	0.81760E-07	480154.1	3743342.3	439.6	3.50	4.00	1.63	YES	

L0000178	0	0.81760E-07	480145.5	3743342.3	439.7	3.50	4.00	1.63	YES
L0000179	0	0.81760E-07	480136.9	3743342.3	439.7	3.50	4.00	1.63	YES
L0000180	0	0.81760E-07	480128.3	3743342.3	439.7	3.50	4.00	1.63	YES
L0000181	0	0.81760E-07	480119.7	3743342.3	439.7	3.50	4.00	1.63	YES
L0000182	0	0.81760E-07	480111.2	3743342.3	439.7	3.50	4.00	1.63	YES
L0000183	0	0.81760E-07	480102.6	3743342.3	439.7	3.50	4.00	1.63	YES
L0000184	0	0.81760E-07	480094.0	3743342.3	439.7	3.50	4.00	1.63	YES
L0000185	0	0.81760E-07	480085.4	3743342.3	439.7	3.50	4.00	1.63	YES
L0000186	0	0.81760E-07	480076.8	3743342.3	439.7	3.50	4.00	1.63	YES
L0000187	0	0.81760E-07	480068.2	3743342.3	439.8	3.50	4.00	1.63	YES
L0000188	0	0.81760E-07	480059.6	3743342.3	439.8	3.50	4.00	1.63	YES
L0000189	0	0.81760E-07	480051.0	3743342.3	439.8	3.50	4.00	1.63	YES
L0000190	0	0.81760E-07	480042.4	3743342.3	439.8	3.50	4.00	1.63	YES
L0000191	0	0.81760E-07	480033.8	3743342.3	439.9	3.50	4.00	1.63	YES
L0000192	0	0.81760E-07	480025.2	3743342.3	439.9	3.50	4.00	1.63	YES
L0000193	0	0.81760E-07	480016.7	3743342.3	439.9	3.50	4.00	1.63	YES
L0000194	0	0.81760E-07	480008.1	3743342.3	439.9	3.50	4.00	1.63	YES
L0000195	0	0.81760E-07	479999.5	3743342.3	440.0	3.50	4.00	1.63	YES
L0000196	0	0.81760E-07	479990.9	3743342.3	440.0	3.50	4.00	1.63	YES
L0000197	0	0.81760E-07	479982.3	3743342.3	440.0	3.50	4.00	1.63	YES
L0000198	0	0.81760E-07	479973.7	3743342.3	440.1	3.50	4.00	1.63	YES
L0000199	0	0.81760E-07	479965.1	3743342.3	440.1	3.50	4.00	1.63	YES
L0000200	0	0.81760E-07	479956.5	3743342.3	440.1	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000201	0	0.81760E-07	479947.9	3743342.3	440.2	3.50	4.00	1.63	YES	
L0000202	0	0.81760E-07	479939.3	3743342.3	440.2	3.50	4.00	1.63	YES	
L0000203	0	0.81760E-07	479930.7	3743342.3	440.3	3.50	4.00	1.63	YES	
L0000204	0	0.81760E-07	479922.2	3743342.3	440.3	3.50	4.00	1.63	YES	
L0000205	0	0.81760E-07	479913.6	3743342.3	440.4	3.50	4.00	1.63	YES	
L0000206	0	0.81760E-07	479905.0	3743342.3	440.4	3.50	4.00	1.63	YES	
L0000207	0	0.81760E-07	479896.4	3743342.3	440.4	3.50	4.00	1.63	YES	
L0000208	0	0.81760E-07	479887.8	3743342.4	440.4	3.50	4.00	1.63	YES	
L0000209	0	0.81760E-07	479885.2	3743350.5	440.3	3.50	4.00	1.63	YES	
L0000210	0	0.81760E-07	479882.5	3743358.7	440.2	3.50	4.00	1.63	YES	
L0000211	0	0.81760E-07	479882.6	3743367.1	440.1	3.50	4.00	1.63	YES	
L0000212	0	0.81760E-07	479884.0	3743375.6	440.0	3.50	4.00	1.63	YES	
L0000213	0	0.81760E-07	479885.3	3743384.0	439.9	3.50	4.00	1.63	YES	
L0000214	0	0.81760E-07	479886.7	3743392.5	439.8	3.50	4.00	1.63	YES	

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L0000215         0   0.81760E-07  479888.0 3743401.0   439.7     3.50     4.00     1.63     YES
L0000216         0   0.81760E-07  479889.4 3743409.5   439.7     3.50     4.00     1.63     YES
L0000217         0   0.81760E-07  479890.8 3743418.0   439.7     3.50     4.00     1.63     YES
L0000218         0   0.81760E-07  479893.1 3743426.2   439.7     3.50     4.00     1.63     YES
L0000219         0   0.81760E-07  479895.4 3743434.5   439.7     3.50     4.00     1.63     YES
L0000220         0   0.81760E-07  479897.8 3743442.8   439.8     3.50     4.00     1.63     YES
L0000221         0   0.81760E-07  479900.1 3743451.0   439.9     3.50     4.00     1.63     YES

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                              ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                               ***        18:43:44
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*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                          SOURCE IDs
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 ALL        STCK1       , STCK2       , STCK3       , STCK4       , STCK5       , STCK6       , STCK7       , STCK8       ,
            L0000001    , L0000002    , L0000003    , L0000004    , L0000005    , L0000006    , L0000007    , L0000008    ,
            L0000009    , L0000010    , L0000011    , L0000012    , L0000013    , L0000014    , L0000015    , L0000016    ,
            L0000017    , L0000018    , L0000019    , L0000020    , L0000021    , L0000022    , L0000023    , L0000024    ,
            L0000025    , L0000026    , L0000027    , L0000028    , L0000029    , L0000030    , L0000031    , L0000032    ,
            L0000033    , L0000034    , L0000035    , L0000036    , L0000037    , L0000038    , L0000039    , L0000040    ,
            L0000041    , L0000042    , L0000043    , L0000044    , L0000045    , L0000046    , L0000047    , L0000048    ,
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            L0000057    , L0000058    , L0000059    , L0000060    , L0000061    , L0000062    , L0000063    , L0000064    ,
            L0000065    , L0000066    , L0000067    , L0000068    , L0000069    , L0000070    , L0000071    , L0000072    ,
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           L0000129    , L0000130    , L0000131    , L0000132    , L0000133    , L0000134    , L0000135    , L0000136    ,

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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	L0000161 , L0000162 , L0000163 , L0000164 , L0000165 , L0000166 , L0000167 , L0000168 ,
	L0000169 , L0000170 , L0000171 , L0000172 , L0000173 , L0000174 , L0000175 , L0000176 ,
	L0000177 , L0000178 , L0000179 , L0000180 , L0000181 , L0000182 , L0000183 , L0000184 ,
	L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 , L0000191 , L0000192 ,
	L0000193 , L0000194 , L0000195 , L0000196 , L0000197 , L0000198 , L0000199 , L0000200 ,
	L0000201 , L0000202 , L0000203 , L0000204 , L0000205 , L0000206 , L0000207 , L0000208 ,
	L0000209 , L0000210 , L0000211 , L0000212 , L0000213 , L0000214 , L0000215 , L0000216 ,
	L0000217 , L0000218 , L0000219 , L0000220 , L0000221 ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

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STCK8       ,
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            L0000145    , L0000146    , L0000147    , L0000148    , L0000149    , L0000150    , L0000151    , L0000152    ,

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                     ***        18:43:44
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*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

 URBAN ID   URBAN POP                                 SOURCE IDs
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           L0000153    , L0000154    , L0000155    , L0000156    , L0000157    , L0000158    , L0000159    , L0000160    ,
           L0000161    , L0000162    , L0000163    , L0000164    , L0000165    , L0000166    , L0000167    , L0000168    ,
           L0000169    , L0000170    , L0000171    , L0000172    , L0000173    , L0000174    , L0000175    , L0000176    ,
           L0000177    , L0000178    , L0000179    , L0000180    , L0000181    , L0000182    , L0000183    , L0000184    ,
           L0000185    , L0000186    , L0000187    , L0000188    , L0000189    , L0000190    , L0000191    , L0000192    ,
           L0000193    , L0000194    , L0000195    , L0000196    , L0000197    , L0000198    , L0000199    , L0000200    ,
           L0000201    , L0000202    , L0000203    , L0000204    , L0000205    , L0000206    , L0000207    , L0000208    ,
           L0000209    , L0000210    , L0000211    , L0000212    , L0000213    , L0000214    , L0000215    , L0000216    ,
           L0000217    , L0000218    , L0000219    , L0000220    , L0000221    ,

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                     ***        18:43:44
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*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                    *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


SOURCE ID: STCK1
 IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
   1   11.0,  339.9,  228.0,  -29.5,   20.2,      2   11.0,  358.8,  270.0,  -56.3,   36.3,
   3   11.0,  366.8,  303.9,  -81.3,   51.3,      4   11.0,  363.7,  328.4, -103.8,   64.8,
   5   11.0,  349.5,  343.1, -123.2,   76.3,      6   11.0,  324.7,  347.2, -138.8,   85.5,
   7   11.0,  290.0,  342.3, -150.2,   92.1,      8   11.0,  246.6,  333.1, -157.1,   95.9,
   9   11.0,  199.1,  316.2, -161.2,   95.8,     10   11.0,  228.0,  339.9, -190.1,   84.5,
  11   11.0,  270.0,  358.8, -215.7,   78.8,     12   11.0,  303.9,  366.8, -234.8,   70.7,
  13   11.0,  328.4,  363.7, -246.7,   60.4,     14   11.0,  343.1,  349.5, -251.1,   48.3,
  15   11.0,  347.2,  324.7, -247.9,   34.8,     16   11.0,  342.3,  290.0, -237.1,   20.9,
  17   11.0,  333.1,  246.6, -219.2,    9.5,     18   11.0,  316.2,  199.1, -195.3,   -3.0,
  19   11.0,  339.9,  228.0, -198.5,  -20.2,     20   11.0,  358.8,  270.0, -213.8,  -36.3,
  21   11.0,  366.8,  303.9, -222.6,  -51.3,     22   11.0,  363.7,  328.4, -224.6,  -64.8,
  23   11.0,  349.5,  343.1, -219.9,  -76.3,     24   11.0,  324.7,  347.2, -208.4,  -85.5,
  25   11.0,  290.0,  342.3, -192.0,  -92.1,     26   11.0,  246.6,  333.1, -176.0,  -95.9,
  27   11.0,  199.1,  316.2, -155.1,  -95.8,     28   11.0,  228.0,  339.9, -149.8,  -84.5,
  29   11.0,  270.0,  358.8, -143.1,  -78.8,     30   11.0,  303.9,  366.8, -132.1,  -70.7,
  31   11.0,  328.4,  363.7, -117.0,  -60.4,     32   11.0,  343.1,  349.5,  -98.4,  -48.3,
  33   11.0,  347.2,  324.7,  -76.8,  -34.8,     34   11.0,  342.3,  290.0,  -52.9,  -20.9,
  35   11.0,  333.1,  246.6,  -27.4,   -9.5,     36   11.0,  316.2,  199.1,   -3.8,    3.0,


SOURCE ID: STCK2
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IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	11.0,	339.9,	228.0,	-15.0,	-51.3,	2	11.0,	358.8,	270.0,	-29.5,	-31.5,
3	11.0,	366.8,	303.9,	-43.2,	-10.8,	4	11.0,	363.7,	328.4,	-55.5,	10.2,
5	11.0,	349.5,	343.1,	-66.1,	30.9,	6	11.0,	324.7,	347.2,	-74.7,	50.7,
7	11.0,	290.0,	342.3,	-81.1,	69.0,	8	11.0,	246.6,	333.1,	-85.0,	85.1,
9	11.0,	199.1,	316.2,	-88.3,	97.7,	10	11.0,	228.0,	339.9,	-118.6,	99.0,
11	11.0,	270.0,	358.8,	-147.9,	105.5,	12	11.0,	303.9,	366.8,	-172.6,	108.8,
13	11.0,	328.4,	363.7,	-192.0,	108.7,	14	11.0,	343.1,	349.5,	-205.7,	105.4,
15	11.0,	347.2,	324.7,	-213.1,	98.9,	16	11.0,	342.3,	290.0,	-214.0,	90.0,
17	11.0,	333.1,	246.6,	-208.4,	81.6,	18	11.0,	316.2,	199.1,	-197.2,	69.9,
19	11.0,	339.9,	228.0,	-213.0,	51.3,	20	11.0,	358.8,	270.0,	-240.5,	31.5,
21	11.0,	366.8,	303.9,	-260.7,	10.8,	22	11.0,	363.7,	328.4,	-272.9,	-10.2,
23	11.0,	349.5,	343.1,	-276.9,	-30.9,	24	11.0,	324.7,	347.2,	-272.5,	-50.7,
25	11.0,	290.0,	342.3,	-261.2,	-69.0,	26	11.0,	246.6,	333.1,	-248.1,	-85.1,
27	11.0,	199.1,	316.2,	-228.0,	-97.7,	28	11.0,	228.0,	339.9,	-221.2,	-99.0,
29	11.0,	270.0,	358.8,	-210.9,	-105.5,	30	11.0,	303.9,	366.8,	-194.2,	-108.8,
31	11.0,	328.4,	363.7,	-171.6,	-108.7,	32	11.0,	343.1,	349.5,	-143.8,	-105.4,
33	11.0,	347.2,	324.7,	-111.6,	-98.9,	34	11.0,	342.3,	290.0,	-76.1,	-90.0,
35	11.0,	333.1,	246.6,	-38.2,	-81.6,	36	11.0,	316.2,	199.1,	-1.9,	-69.9,

SOURCE ID: STCK3

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	11.0,	339.9,	228.0,	-39.9,	87.1,	2	11.0,	358.8,	270.0,	-78.1,	100.4,
3	11.0,	366.8,	303.9,	-113.9,	110.7,	4	11.0,	363.7,	328.4,	-146.2,	117.6,
5	11.0,	349.5,	343.1,	-174.1,	120.9,	6	11.0,	324.7,	347.2,	-196.7,	120.6,
7	11.0,	290.0,	342.3,	-213.4,	116.6,	8	11.0,	246.6,	333.1,	-223.5,	109.1,
9	11.0,	199.1,	316.2,	-228.9,	97.2,	10	11.0,	228.0,	339.9,	-257.0,	74.1,
11	11.0,	270.0,	358.8,	-279.8,	56.9,	12	11.0,	303.9,	366.8,	-294.1,	38.0,
13	11.0,	328.4,	363.7,	-299.4,	18.0,	14	11.0,	343.1,	349.5,	-295.7,	-2.6,
15	11.0,	347.2,	324.7,	-283.0,	-23.1,	16	11.0,	342.3,	290.0,	-261.6,	-42.2,
17	11.0,	333.1,	246.6,	-232.4,	-57.0,	18	11.0,	316.2,	199.1,	-196.8,	-70.7,
19	11.0,	339.9,	228.0,	-188.1,	-87.1,	20	11.0,	358.8,	270.0,	-192.0,	-100.4,
21	11.0,	366.8,	303.9,	-190.0,	-110.7,	22	11.0,	363.7,	328.4,	-182.2,	-117.6,
23	11.0,	349.5,	343.1,	-168.9,	-120.9,	24	11.0,	324.7,	347.2,	-150.5,	-120.6,
25	11.0,	290.0,	342.3,	-128.9,	-116.6,	26	11.0,	246.6,	333.1,	-109.6,	-109.1,
27	11.0,	199.1,	316.2,	-87.4,	-97.2,	28	11.0,	228.0,	339.9,	-82.8,	-74.1,
29	11.0,	270.0,	358.8,	-79.0,	-56.9,	30	11.0,	303.9,	366.8,	-72.7,	-38.0,
31	11.0,	328.4,	363.7,	-64.2,	-18.0,	32	11.0,	343.1,	349.5,	-53.8,	2.6,
33	11.0,	347.2,	324.7,	-41.7,	23.1,	34	11.0,	342.3,	290.0,	-28.4,	42.2,
35	11.0,	333.1,	246.6,	-14.2,	57.0,	36	11.0,	316.2,	199.1,	-2.3,	70.7,

SOURCE ID: STCK4

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	11.0,	339.9,	228.0,	-205.8,	-85.4,	2	11.0,	358.8,	270.0,	-211.5,	-98.2,
3	11.0,	366.8,	303.9,	-210.8,	-108.1,	4	11.0,	363.7,	328.4,	-203.7,	-114.7,
5	11.0,	349.5,	343.1,	-190.4,	-117.8,	6	11.0,	324.7,	347.2,	-171.3,	-117.4,
7	11.0,	290.0,	342.3,	-147.0,	-113.3,	8	11.0,	246.6,	333.1,	-118.2,	-105.8,
9	11.0,	199.1,	316.2,	-87.8,	-96.1,	10	11.0,	228.0,	339.9,	-84.6,	-91.8,
11	11.0,	270.0,	358.8,	-81.1,	-76.5,	12	11.0,	303.9,	366.8,	-75.3,	-58.9,

13	11.0,	328.4,	363.7,	-67.1,	-39.5,	14	11.0,	343.1,	349.5,	-56.9,	-18.9,
15	11.0,	347.2,	324.7,	-45.0,	2.3,	16	11.0,	342.3,	290.0,	-31.7,	24.1,
17	11.0,	333.1,	246.6,	-17.4,	48.3,	18	11.0,	316.2,	199.1,	-3.4,	70.3,
19	11.0,	339.9,	228.0,	-22.2,	85.4,	20	11.0,	358.8,	270.0,	-58.5,	98.2,
21	11.0,	366.8,	303.9,	-93.0,	108.1,	22	11.0,	363.7,	328.4,	-124.7,	114.7,
23	11.0,	349.5,	343.1,	-152.7,	117.8,	24	11.0,	324.7,	347.2,	-175.9,	117.4,
25	11.0,	290.0,	342.3,	-195.3,	113.3,	26	11.0,	246.6,	333.1,	-214.9,	105.8,
27	11.0,	199.1,	316.2,	-228.4,	96.1,	28	11.0,	228.0,	339.9,	-255.3,	91.8,
29	11.0,	270.0,	358.8,	-277.6,	76.5,	30	11.0,	303.9,	366.8,	-291.5,	58.9,
31	11.0,	328.4,	363.7,	-296.6,	39.5,	32	11.0,	343.1,	349.5,	-292.6,	18.9,
33	11.0,	347.2,	324.7,	-279.7,	-2.3,	34	11.0,	342.3,	290.0,	-258.4,	-24.1,
35	11.0,	333.1,	246.6,	-229.1,	-48.3,	36	11.0,	316.2,	199.1,	-195.7,	-70.3,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK5

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	11.0,	339.9,	228.0,	-233.8,	71.2,	2	11.0,	358.8,	270.0,	-266.3,	51.1,
3	11.0,	366.8,	303.9,	-290.6,	29.4,	4	11.0,	363.7,	328.4,	-306.2,	6.9,
5	11.0,	349.5,	343.1,	-312.4,	-15.9,	6	11.0,	324.7,	347.2,	-309.2,	-38.1,
7	11.0,	290.0,	342.3,	-296.6,	-59.3,	8	11.0,	246.6,	333.1,	-274.9,	-78.6,
9	11.0,	199.1,	316.2,	-246.9,	-96.5,	10	0.0,	0.0,	0.0,	0.0,	0.0,
11	11.0,	270.0,	358.8,	-230.5,	-131.2,	12	11.0,	303.9,	366.8,	-212.8,	-138.7,
13	11.0,	328.4,	363.7,	-188.7,	-142.0,	14	11.0,	343.1,	349.5,	-158.9,	-140.9,
15	11.0,	347.2,	324.7,	-124.2,	-135.6,	16	11.0,	342.3,	290.0,	-85.8,	-125.4,
17	11.0,	333.1,	246.6,	-44.7,	-108.3,	18	11.0,	316.2,	199.1,	-3.1,	-88.8,
19	11.0,	339.9,	228.0,	5.8,	-71.2,	20	11.0,	358.8,	270.0,	-3.8,	-51.1,
21	11.0,	366.8,	303.9,	-13.2,	-29.4,	22	11.0,	363.7,	328.4,	-22.2,	-6.9,
23	11.0,	349.5,	343.1,	-30.6,	15.9,	24	11.0,	324.7,	347.2,	-38.0,	38.1,
25	11.0,	290.0,	342.3,	-45.7,	59.3,	26	11.0,	246.6,	333.1,	-58.2,	78.6,
27	11.0,	199.1,	316.2,	-69.4,	96.5,	28	0.0,	0.0,	0.0,	0.0,	0.0,
29	11.0,	270.0,	358.8,	-128.3,	131.2,	30	11.0,	303.9,	366.8,	-154.0,	138.7,
31	11.0,	328.4,	363.7,	-175.0,	142.0,	32	11.0,	343.1,	349.5,	-190.6,	140.9,
33	11.0,	347.2,	324.7,	-200.5,	135.6,	34	11.0,	342.3,	290.0,	-204.3,	125.4,
35	11.0,	333.1,	246.6,	-201.9,	108.3,	36	11.0,	316.2,	199.1,	-196.0,	88.8,

SOURCE ID: STCK6

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	11.0,	339.9,	228.0,	-221.9,	-2.4,	2	11.0,	358.8,	270.0,	-241.7,	-19.3,
3	11.0,	366.8,	303.9,	-254.2,	-35.6,	4	11.0,	363.7,	328.4,	-259.1,	-50.9,
5	11.0,	349.5,	343.1,	-256.0,	-64.6,	6	11.0,	324.7,	347.2,	-245.1,	-76.3,
7	11.0,	290.0,	342.3,	-226.8,	-85.7,	8	11.0,	246.6,	333.1,	-201.7,	-92.5,
9	11.0,	199.1,	316.2,	-172.3,	-97.5,	10	11.0,	228.0,	339.9,	-167.5,	-107.8,

11	11.0,	270.0,	358.8,	-160.1,	-106.7,	12	11.0,	303.9,	366.8,	-147.8,	-102.3,
13	11.0,	328.4,	363.7,	-131.0,	-94.8,	14	11.0,	343.1,	349.5,	-110.2,	-84.5,
15	11.0,	347.2,	324.7,	-86.0,	-71.5,	16	11.0,	342.3,	290.0,	-59.3,	-55.7,
17	11.0,	333.1,	246.6,	-30.8,	-35.1,	18	11.0,	316.2,	199.1,	-2.0,	-14.2,
19	11.0,	339.9,	228.0,	-6.2,	2.4,	20	11.0,	358.8,	270.0,	-28.3,	19.3,
21	11.0,	366.8,	303.9,	-49.6,	35.6,	22	11.0,	363.7,	328.4,	-69.4,	50.9,
23	11.0,	349.5,	343.1,	-87.1,	64.6,	24	11.0,	324.7,	347.2,	-102.1,	76.3,
25	11.0,	290.0,	342.3,	-115.4,	85.7,	26	11.0,	246.6,	333.1,	-131.4,	92.5,
27	11.0,	199.1,	316.2,	-143.9,	97.5,	28	11.0,	228.0,	339.9,	-172.4,	107.8,
29	11.0,	270.0,	358.8,	-198.7,	106.7,	30	11.0,	303.9,	366.8,	-219.1,	102.3,
31	11.0,	328.4,	363.7,	-232.7,	94.8,	32	11.0,	343.1,	349.5,	-239.3,	84.5,
33	11.0,	347.2,	324.7,	-238.7,	71.5,	34	11.0,	342.3,	290.0,	-230.8,	55.7,
35	11.0,	333.1,	246.6,	-215.8,	35.1,	36	11.0,	316.2,	199.1,	-197.1,	14.2,

SOURCE ID: STCK7

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	0.0,	0.0,	0.0,	0.0,	0.0,	4	0.0,	0.0,	0.0,	0.0,	0.0,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	0.0,	0.0,	0.0,	0.0,	0.0,	8	0.0,	0.0,	0.0,	0.0,	0.0,
9	0.0,	0.0,	0.0,	0.0,	0.0,	10	0.0,	0.0,	0.0,	0.0,	0.0,
11	0.0,	0.0,	0.0,	0.0,	0.0,	12	0.0,	0.0,	0.0,	0.0,	0.0,
13	0.0,	0.0,	0.0,	0.0,	0.0,	14	0.0,	0.0,	0.0,	0.0,	0.0,
15	0.0,	0.0,	0.0,	0.0,	0.0,	16	0.0,	0.0,	0.0,	0.0,	0.0,
17	0.0,	0.0,	0.0,	0.0,	0.0,	18	0.0,	0.0,	0.0,	0.0,	0.0,
19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	0.0,	0.0,	0.0,	0.0,	0.0,	22	0.0,	0.0,	0.0,	0.0,	0.0,
23	0.0,	0.0,	0.0,	0.0,	0.0,	24	0.0,	0.0,	0.0,	0.0,	0.0,
25	0.0,	0.0,	0.0,	0.0,	0.0,	26	0.0,	0.0,	0.0,	0.0,	0.0,
27	0.0,	0.0,	0.0,	0.0,	0.0,	28	11.0,	228.0,	339.9,	-392.6,	87.5,
29	11.0,	270.0,	358.8,	-412.1,	48.5,	30	11.0,	303.9,	366.8,	-419.1,	7.9,
31	11.0,	328.4,	363.7,	-413.3,	-32.9,	32	11.0,	343.1,	349.5,	-395.0,	-72.7,
33	11.0,	347.2,	324.7,	-364.7,	-110.2,	34	11.0,	342.3,	290.0,	-323.3,	-145.2,
35	0.0,	0.0,	0.0,	0.0,	0.0,	36	0.0,	0.0,	0.0,	0.0,	0.0,

SOURCE ID: STCK8

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	11.0,	358.8,	270.0,	15.5,	-159.1,
3	0.0,	0.0,	0.0,	0.0,	0.0,	4	0.0,	0.0,	0.0,	0.0,	0.0,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	0.0,	0.0,	0.0,	0.0,	0.0,	8	0.0,	0.0,	0.0,	0.0,	0.0,
9	0.0,	0.0,	0.0,	0.0,	0.0,	10	0.0,	0.0,	0.0,	0.0,	0.0,
11	0.0,	0.0,	0.0,	0.0,	0.0,	12	0.0,	0.0,	0.0,	0.0,	0.0,
13	0.0,	0.0,	0.0,	0.0,	0.0,	14	0.0,	0.0,	0.0,	0.0,	0.0,
15	0.0,	0.0,	0.0,	0.0,	0.0,	16	0.0,	0.0,	0.0,	0.0,	0.0,
17	0.0,	0.0,	0.0,	0.0,	0.0,	18	0.0,	0.0,	0.0,	0.0,	0.0,
19	0.0,	0.0,	0.0,	0.0,	0.0,	20	11.0,	358.8,	270.0,	-285.6,	159.1,
21	11.0,	366.8,	303.9,	-327.2,	128.6,	22	11.0,	363.7,	328.4,	-358.9,	94.2,
23	11.0,	349.5,	343.1,	-379.7,	57.0,	24	11.0,	324.7,	347.2,	-389.0,	18.0,

25	11.0,	290.0,	342.3,	-387.8,	-21.5,	26	11.0,	246.6,	333.1,	-381.1,	-60.4,
27	11.0,	199.1,	316.2,	-363.2,	-96.4,	28	0.0,	0.0,	0.0,	0.0,	0.0,
29	0.0,	0.0,	0.0,	0.0,	0.0,	30	0.0,	0.0,	0.0,	0.0,	0.0,
31	0.0,	0.0,	0.0,	0.0,	0.0,	32	0.0,	0.0,	0.0,	0.0,	0.0,
33	0.0,	0.0,	0.0,	0.0,	0.0,	34	0.0,	0.0,	0.0,	0.0,	0.0,
35	0.0,	0.0,	0.0,	0.0,	0.0,	36	0.0,	0.0,	0.0,	0.0,	0.0,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

479843.9, 479893.9, 479943.9, 479993.9, 480043.9, 480093.9, 480143.9, 480193.9, 480243.9, 480293.9,
480343.9, 480393.9, 480443.9, 480493.9, 480543.9, 480593.9, 480643.9, 480693.9, 480743.9, 480793.9,
480843.9,

*** Y-COORDINATES OF GRID ***
(METERS)

3742361.8, 3742411.8, 3742461.8, 3742511.8, 3742561.8, 3742611.8, 3742661.8, 3742711.8, 3742761.8, 3742811.8,
3742861.8, 3742911.8, 3742961.8, 3743011.8, 3743061.8, 3743111.8, 3743161.8, 3743211.8, 3743261.8, 3743311.8,
3743361.8,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 479843.92	479893.92	479943.92	479993.92	480043.92	480093.92	480143.92	480193.92	480243.92
3743361.85	439.70	440.20	440.10	439.80	439.70	439.60	439.50	439.50	439.50
3743311.85	440.40	440.50	440.30	440.00	439.80	439.60	439.40	439.30	439.30
3743261.85	440.50	440.70	440.40	440.10	439.80	439.60	439.40	439.30	439.20
3743211.85	440.70	440.80	440.50	440.30	439.90	439.80	439.70	439.50	439.40
3743161.85	440.90	440.90	440.60	440.40	440.10	439.90	439.60	439.60	439.40
3743111.85	441.00	441.00	440.60	440.50	440.20	440.00	439.70	439.40	439.20
3743061.85	440.80	440.80	440.40	440.30	440.10	440.10	439.80	439.40	439.20

3743011.85	440.50	440.50	440.20	440.00	439.80	439.90	439.80	439.40	439.40
3742961.85	440.50	440.50	440.20	439.90	439.70	439.60	439.30	439.10	439.20
3742911.85	440.50	440.40	440.20	439.90	439.60	439.30	439.10	438.90	438.80
3742861.85	440.40	440.50	440.10	439.80	439.50	439.30	439.00	438.90	438.80
3742811.85	440.30	440.40	440.00	439.90	439.50	439.30	439.00	438.80	438.70
3742761.85	440.30	440.30	440.00	439.80	439.60	439.30	439.00	438.80	438.80
3742711.85	440.30	440.30	440.00	439.80	439.70	439.40	439.00	438.90	439.20
3742661.85	440.40	440.40	440.10	439.90	439.70	439.30	439.00	438.90	439.20
3742611.85	440.30	440.20	440.00	439.80	439.60	439.30	439.10	438.90	438.80
3742561.85	439.90	440.00	439.90	439.80	439.60	439.40	439.30	439.10	439.00
3742511.85	440.00	439.90	439.70	439.60	439.60	439.50	439.50	439.40	439.20
3742461.85	440.00	440.00	439.80	439.70	439.70	439.60	439.60	439.40	439.30
3742411.85	439.50	440.10	440.00	439.80	439.70	439.60	439.60	439.40	439.30
3742361.85	438.50	440.00	440.00	439.80	439.70	439.60	439.40	439.30	439.30

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 480293.92	480343.92	480393.92	480443.92	480493.92	480543.92	480593.92	480643.92	480693.92
3743361.85	439.40	439.30	439.30	439.10	438.60	438.60	438.60	439.20	440.10
3743311.85	439.40	439.30	439.30	439.20	439.00	437.20	439.20	439.50	439.40
3743261.85	439.40	439.90	439.80	439.20	439.10	436.60	438.60	439.20	439.20
3743211.85	439.40	440.00	440.00	439.10	439.10	437.50	437.20	439.10	439.10
3743161.85	439.30	439.40	439.40	439.00	438.90	438.60	436.10	438.60	439.70
3743111.85	439.20	439.20	439.00	438.90	438.80	438.80	436.70	437.60	439.40
3743061.85	439.20	439.60	439.10	438.90	438.70	438.70	437.80	436.30	439.00
3743011.85	439.00	438.90	438.90	438.80	438.70	438.60	438.50	436.10	437.40
3742961.85	438.90	438.70	438.70	438.70	438.60	438.50	438.60	437.10	435.60
3742911.85	438.80	438.70	438.70	438.70	438.60	438.50	438.50	438.10	435.70
3742861.85	438.70	438.60	438.60	438.60	438.50	438.40	438.40	438.30	436.70
3742811.85	438.70	438.60	438.50	438.50	438.50	438.40	438.40	438.30	437.50
3742761.85	438.70	438.60	438.40	438.40	438.40	438.40	438.30	438.20	438.00
3742711.85	438.80	438.60	438.50	438.50	438.40	438.40	438.30	438.20	438.00
3742661.85	438.80	438.60	438.60	438.60	438.50	438.30	438.30	438.20	438.00
3742611.85	438.90	439.20	439.10	438.60	438.50	438.30	438.20	438.20	438.10
3742561.85	439.00	439.30	439.00	438.50	438.50	438.30	438.20	438.10	438.10
3742511.85	439.10	438.90	438.70	438.60	438.40	438.30	438.20	438.10	438.00
3742461.85	439.20	439.00	438.80	438.60	438.50	438.40	438.30	438.20	438.00
3742411.85	439.20	439.00	438.90	438.70	438.60	438.50	438.40	438.40	438.10
3742361.85	439.10	438.80	438.60	438.50	438.40	438.30	438.20	438.10	438.00

*** NETWORK ID: UCART1   ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)		
	480743.92	480793.92	480843.92
3743361.85	440.70	440.90	440.80
3743311.85	439.30	439.40	439.60
3743261.85	439.20	439.30	439.40
3743211.85	439.10	439.30	439.40
3743161.85	439.80	440.00	440.20
3743111.85	440.00	440.40	440.40
3743061.85	440.40	440.60	440.70
3743011.85	439.50	440.10	440.60
3742961.85	437.30	439.90	440.20
3742911.85	435.90	439.40	439.90
3742861.85	435.40	437.80	440.00
3742811.85	435.50	436.20	439.70
3742761.85	435.90	435.30	438.60
3742711.85	436.70	435.20	436.80
3742661.85	437.40	435.20	435.60
3742611.85	437.60	435.90	435.00
3742561.85	437.70	436.80	435.10
3742511.85	437.60	437.30	435.10
3742461.85	437.70	437.40	435.80
3742411.85	437.80	437.40	436.70
3742361.85	437.80	437.40	437.10

*** NETWORK ID: UCART1   ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	479843.92	479893.92	479943.92	479993.92	480043.92	480093.92	480143.92	480193.92	480243.92
3743361.85	439.70	440.20	440.10	439.80	439.70	439.60	439.50	439.50	439.50
3743311.85	440.40	440.50	440.30	440.00	439.80	439.60	439.40	439.30	439.30
3743261.85	440.50	440.70	440.40	440.10	439.80	439.60	439.40	439.30	439.20
3743211.85	440.70	440.80	440.50	440.30	439.90	439.80	439.70	439.50	439.40

3743161.85	440.90	440.90	440.60	440.40	440.10	439.90	439.60	439.60	439.40
3743111.85	441.00	441.00	440.60	440.50	440.20	440.00	439.70	439.40	439.20
3743061.85	440.80	440.80	440.40	440.30	440.10	440.10	439.80	439.40	439.20
3743011.85	440.50	440.50	440.20	440.00	439.80	439.90	439.80	439.40	439.40
3742961.85	440.50	440.50	440.20	439.90	439.70	439.60	439.30	439.10	439.20
3742911.85	440.50	440.40	440.20	439.90	439.60	439.30	439.10	438.90	438.80
3742861.85	440.40	440.50	440.10	439.80	439.50	439.30	439.00	438.90	438.80
3742811.85	440.30	440.40	440.00	439.90	439.50	439.30	439.00	438.80	438.70
3742761.85	440.30	440.30	440.00	439.80	439.60	439.30	439.00	438.80	438.80
3742711.85	440.30	440.30	440.00	439.80	439.70	439.40	439.00	438.90	439.20
3742661.85	440.40	440.40	440.10	439.90	439.70	439.30	439.00	438.90	439.20
3742611.85	440.30	440.20	440.00	439.80	439.60	439.30	439.10	438.90	438.80
3742561.85	439.90	440.00	439.90	439.80	439.60	439.40	439.30	439.10	439.00
3742511.85	440.00	439.90	439.70	439.60	439.60	439.50	439.50	439.40	439.20
3742461.85	440.00	440.00	439.80	439.70	439.70	439.60	439.60	439.40	439.30
3742411.85	439.50	440.10	440.00	439.80	439.70	439.60	439.60	439.40	439.30
3742361.85	438.50	440.00	440.00	439.80	439.70	439.60	439.40	439.30	439.30

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 480293.92	480343.92	480393.92	480443.92	480493.92	480543.92	480593.92	480643.92	480693.92
3743361.85	439.40	439.30	439.30	439.10	438.60	438.60	438.60	439.20	440.10
3743311.85	439.40	439.30	439.30	439.20	439.00	437.20	439.20	439.50	439.40
3743261.85	439.40	439.90	439.80	439.20	439.10	436.60	438.60	439.20	439.20
3743211.85	439.40	440.00	440.00	439.10	439.10	437.50	437.20	439.10	439.10
3743161.85	439.30	439.40	439.40	439.00	438.90	438.60	436.10	438.60	439.70
3743111.85	439.20	439.20	439.00	438.90	438.80	438.80	436.70	437.60	439.40
3743061.85	439.20	439.60	439.10	438.90	438.70	438.70	437.80	436.30	439.00
3743011.85	439.00	438.90	438.90	438.80	438.70	438.60	438.50	436.10	437.40
3742961.85	438.90	438.70	438.70	438.70	438.60	438.50	438.60	437.10	435.60
3742911.85	438.80	438.70	438.70	438.70	438.60	438.50	438.50	438.10	435.70
3742861.85	438.70	438.60	438.60	438.60	438.50	438.40	438.40	438.30	436.70
3742811.85	438.70	438.60	438.50	438.50	438.50	438.40	438.40	438.30	437.50
3742761.85	438.70	438.60	438.40	438.40	438.40	438.40	438.30	438.20	438.00
3742711.85	438.80	438.60	438.50	438.50	438.40	438.40	438.30	438.20	438.00
3742661.85	438.80	438.60	438.60	438.60	438.50	438.30	438.30	438.20	438.00
3742611.85	438.90	439.20	439.10	438.60	438.50	438.30	438.20	438.20	438.10
3742561.85	439.00	439.30	439.00	438.50	438.50	438.30	438.20	438.10	438.10
3742511.85	439.10	438.90	438.70	438.60	438.40	438.30	438.20	438.10	438.00
3742461.85	439.20	439.00	438.80	438.60	438.50	438.40	438.30	438.20	438.00
3742411.85	439.20	439.00	438.90	438.70	438.60	438.50	438.40	438.40	438.10

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 3742361.85 |        439.10       438.80       438.60       438.50       438.40       438.30       438.20       438.10       438.00

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                     ***        18:43:44
                                                                                                                    PAGE  21
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                                        * HILL HEIGHT SCALES IN METERS *

   Y-COORD  |                                          X-COORD (METERS)
   (METERS) |     480743.92    480793.92    480843.92
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3743361.85 |        440.70       440.90       440.80
 3743311.85 |        439.30       439.40       439.60
 3743261.85 |        439.20       439.30       439.40
 3743211.85 |        439.10       439.30       439.40
 3743161.85 |        439.80       440.00       440.20
 3743111.85 |        440.00       440.40       440.40
 3743061.85 |        440.40       440.60       440.70
 3743011.85 |        439.50       440.10       440.60
 3742961.85 |        439.30       439.90       440.20
 3742911.85 |        435.90       439.40       439.90
 3742861.85 |        435.40       437.80       440.00
 3742811.85 |        435.50       438.10       439.70
 3742761.85 |        435.90       435.30       438.60
 3742711.85 |        436.70       435.20       436.80
 3742661.85 |        437.40       435.20       435.60
 3742611.85 |        437.60       435.90       435.00
 3742561.85 |        437.70       436.80       435.10
 3742511.85 |        437.60       437.30       435.10
 3742461.85 |        437.70       437.40       435.80
 3742411.85 |        437.80       437.40       436.70
 3742361.85 |        437.80       437.40       437.10

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                     ***        18:43:44
                                                                                                                    PAGE  22
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 480263.9, 3742518.6,     439.2,     439.2,       0.0);        ( 480320.4, 3742523.5,     439.0,     439.0,       0.0);
    ( 480481.5, 3742521.8,     438.4,     438.4,       0.0);        ( 480666.9, 3742523.5,     438.1,     438.1,       0.0);
    ( 480806.6, 3742873.4,     439.4,     439.4,       0.0);        ( 479947.5, 3742740.3,     439.9,     439.9,       0.0);

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
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 * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
   LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000044	480343.9	3742611.8	0.00
L0000045	480343.9	3742611.8	0.59
L0000078	480293.9	3742611.8	0.68
L0000083	480293.9	3742661.8	-3.03
L0000088	480293.9	3742711.8	0.07
L0000089	480293.9	3742711.8	-2.60
L0000094	480293.9	3742761.8	-0.96
L0000095	480293.9	3742761.8	-1.84
L0000100	480293.9	3742811.8	-1.79
L0000101	480293.9	3742811.8	-0.84
L0000105	480293.9	3742861.8	-0.71
L0000106	480293.9	3742861.8	-1.77
L0000111	480293.9	3742911.8	-1.54
L0000112	480293.9	3742911.8	-0.81
L0000117	480293.9	3742961.8	-2.10
L0000118	480293.9	3742961.8	0.33
L0000123	480293.9	3743011.8	-2.32
L0000129	480293.9	3743061.8	-2.16
L0000134	480293.9	3743111.8	0.28
L0000135	480293.9	3743111.8	-1.66
L0000140	480293.9	3743161.8	-0.61
L0000141	480293.9	3743161.8	-0.87
L0000146	480293.9	3743211.8	-1.28
L0000147	480293.9	3743211.8	0.13
L0000152	480293.9	3743261.8	-1.65
L0000158	480293.9	3743311.8	-1.69

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

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 1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
 1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
 1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
 1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: E:\New MET data\PERI_V9_ADJU\PERI_v9.SFC Met Version: 16216
Profile file: E:\New MET data\PERI_V9_ADJU\PERI_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-7.9	0.125	-9.000	-9.000	-999.	106.	21.2	0.19	0.61	1.00	1.30	335.	9.1	282.5	5.5
10	01	01	1	02	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	142.	9.1	280.9	5.5
10	01	01	1	03	-3.9	0.088	-9.000	-9.000	-999.	62.	15.1	0.19	0.61	1.00	0.90	324.	9.1	280.4	5.5
10	01	01	1	04	-1.3	0.064	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	294.	9.1	278.8	5.5
10	01	01	1	05	-3.9	0.088	-9.000	-9.000	-999.	62.	15.0	0.19	0.61	1.00	0.90	205.	9.1	278.1	5.5
10	01	01	1	06	-1.3	0.065	-9.000	-9.000	-999.	39.	18.3	0.19	0.61	1.00	0.40	3.	9.1	277.0	5.5
10	01	01	1	07	-8.0	0.125	-9.000	-9.000	-999.	106.	21.0	0.19	0.61	1.00	1.30	99.	9.1	277.0	5.5
10	01	01	1	08	-3.3	0.086	-9.000	-9.000	-999.	61.	16.8	0.19	0.61	0.54	0.90	319.	9.1	278.8	5.5
10	01	01	1	09	20.1	0.128	0.307	0.010	49.	110.	-9.0	0.19	0.61	0.33	0.90	239.	9.1	284.2	5.5
10	01	01	1	10	56.7	0.087	0.560	0.010	107.	62.	-1.0	0.19	0.61	0.26	0.40	188.	9.1	289.2	5.5
10	01	01	1	11	81.5	0.323	0.867	0.008	277.	441.	-35.9	0.19	0.61	0.23	2.70	310.	9.1	290.9	5.5
10	01	01	1	12	97.1	0.281	1.058	0.008	421.	357.	-19.7	0.19	0.61	0.22	2.20	357.	9.1	293.1	5.5
10	01	01	1	13	92.2	0.279	1.117	0.008	523.	354.	-20.4	0.19	0.61	0.22	2.20	356.	9.1	293.8	5.5
10	01	01	1	14	77.6	0.275	1.102	0.008	595.	347.	-23.2	0.19	0.61	0.23	2.20	50.	9.1	294.2	5.5
10	01	01	1	15	54.9	0.230	1.006	0.008	640.	266.	-19.2	0.19	0.61	0.27	1.80	53.	9.1	293.8	5.5
10	01	01	1	16	12.3	0.206	0.613	0.008	648.	225.	-61.5	0.19	0.61	0.36	1.80	11.	9.1	292.5	5.5
10	01	01	1	17	-3.6	0.087	-9.000	-9.000	-999.	71.	15.6	0.19	0.61	0.64	0.90	351.	9.1	290.4	5.5
10	01	01	1	18	-3.8	0.087	-9.000	-9.000	-999.	62.	15.2	0.19	0.61	1.00	0.90	186.	9.1	287.5	5.5
10	01	01	1	19	-3.8	0.087	-9.000	-9.000	-999.	62.	15.2	0.19	0.61	1.00	0.90	275.	9.1	285.9	5.5

```
10 01 01   1 20   -1.2  0.064 -9.000 -9.000 -999.   39.     18.1  0.19   0.61   1.00    0.40  181.    9.1  285.4    5.5
10 01 01   1 21   -7.8  0.125 -9.000 -9.000 -999.  106.     21.3  0.19   0.61   1.00    1.30  318.    9.1  284.9    5.5
10 01 01   1 22   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61   1.00    0.90  196.    9.1  283.1    5.5
10 01 01   1 23   -3.8  0.088 -9.000 -9.000 -999.   62.     15.1  0.19   0.61   1.00    0.90  330.    9.1  281.4    5.5
10 01 01   1 24   -7.9  0.125 -9.000 -9.000 -999.  106.     21.2  0.19   0.61   1.00    1.30  332.    9.1  280.9    5.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
10 01 01 01    5.5 0 -999.  -99.00   282.6   99.0  -99.00  -99.00
10 01 01 01    9.1 1  335.    1.30  -999.0   99.0  -99.00  -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                     ***        18:43:44
                                                                                                                    PAGE  26
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
                              INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
               STCK6       , STCK7       , STCK8       , L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
               L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
               L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    ,  . . .      ,

                               *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                                    ** CONC OF DPM      IN MICROGRAMS/M**3                      **

   Y-COORD  |                                                 X-COORD (METERS)
   (METERS) |    479843.92    479893.92    479943.92    479993.92    480043.92    480093.92    480143.92    480193.92    480243.92
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3743361.85 |       0.00057      0.00184      0.00120      0.00116      0.00118      0.00120      0.00123      0.00127      0.00130
 3743311.85 |       0.00044      0.00079      0.00092      0.00095      0.00098      0.00101      0.00105      0.00112      0.00127
 3743261.85 |       0.00034      0.00044      0.00051      0.00056      0.00060      0.00065      0.00071      0.00081      0.00105
 3743211.85 |       0.00030      0.00036      0.00041      0.00047      0.00052      0.00058      0.00066      0.00077      0.00105
 3743161.85 |       0.00029      0.00033      0.00038      0.00043      0.00049      0.00056      0.00066      0.00079      0.00110
 3743111.85 |       0.00028      0.00032      0.00037      0.00042      0.00049      0.00057      0.00068      0.00083      0.00116
 3743061.85 |       0.00028      0.00032      0.00036      0.00042      0.00049      0.00058      0.00070      0.00088      0.00123
 3743011.85 |       0.00028      0.00032      0.00037      0.00043      0.00050      0.00060      0.00073      0.00093      0.00131
 3742961.85 |       0.00028      0.00032      0.00037      0.00043      0.00051      0.00061      0.00076      0.00098      0.00140
 3742911.85 |       0.00028      0.00032      0.00037      0.00044      0.00052      0.00063      0.00079      0.00103      0.00151
 3742861.85 |       0.00028      0.00032      0.00038      0.00044      0.00053      0.00065      0.00081      0.00107      0.00153
 3742811.85 |       0.00028      0.00032      0.00038      0.00045      0.00054      0.00066      0.00083      0.00108      0.00149
 3742761.85 |       0.00028      0.00032      0.00038      0.00045      0.00054      0.00066      0.00084      0.00109      0.00151
 3742711.85 |       0.00028      0.00032      0.00038      0.00045      0.00054      0.00066      0.00084      0.00110      0.00154
 3742661.85 |       0.00028      0.00032      0.00037      0.00044      0.00053      0.00065      0.00083      0.00111      0.00161
 3742611.85 |       0.00027      0.00031      0.00036      0.00043      0.00051      0.00063      0.00081      0.00109      0.00164
 3742561.85 |       0.00026      0.00030      0.00035      0.00041      0.00049      0.00060      0.00076      0.00101      0.00146
 3742511.85 |       0.00025      0.00029      0.00034      0.00039      0.00046      0.00056      0.00069      0.00088      0.00117
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 3742461.85 |       0.00024      0.00028      0.00032      0.00037      0.00043      0.00051      0.00061      0.00075      0.00094
 3742411.85 |       0.00024      0.00026      0.00030      0.00034      0.00040      0.00046      0.00054      0.00064      0.00076
 3742361.85 |       0.00023      0.00025      0.00028      0.00032      0.00036      0.00042      0.00048      0.00055      0.00064

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                     ***        18:43:44
                                                                                                                    PAGE  27
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
                              INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
               STCK6       , STCK7       , STCK8       , L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
               L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
               L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    ,  . . .      ,

                               *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                                   ** CONC OF DPM      IN MICROGRAMS/M**3                        **

   Y-COORD  |                                          X-COORD (METERS)
   (METERS) |     480293.92    480343.92    480393.92    480443.92    480493.92    480543.92    480593.92    480643.92    480693.92
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3743361.85 |       0.00104      0.00064      0.00054      0.00049      0.00045      0.00042      0.00039      0.00036      0.00032
 3743311.85 |       0.00186      0.00080      0.00063      0.00057      0.00053      0.00048      0.00045      0.00041      0.00037
 3743261.85 |       0.00192      0.00092      0.00074      0.00066      0.00061      0.00056      0.00052      0.00046      0.00042
 3743211.85 |       0.00167      0.00101      0.00084      0.00077      0.00071      0.00065      0.00059      0.00053      0.00047
 3743161.85 |       0.00175      0.00112      0.00096      0.00089      0.00083      0.00076      0.00067      0.00060      0.00053
 3743111.85 |       0.00185      0.00123      0.00109      0.00104      0.00098      0.00089      0.00078      0.00068      0.00059
 3743061.85 |       0.00226      0.00136      0.00125      0.00121      0.00115      0.00104      0.00091      0.00077      0.00066
 3743011.85 |       0.00238      0.00151      0.00143      0.00142      0.00138      0.00124      0.00107      0.00087      0.00073
 3742961.85 |       0.00222      0.00170      0.00166      0.00172      0.00173      0.00155      0.00129      0.00100      0.00080
 3742911.85 |       0.00240      0.00195      0.00211      0.00221      0.00225      0.00194      0.00171      0.00119      0.00089
 3742861.85 |       0.00252      0.00248      0.00258      0.00261      0.00254      0.00237      0.00206      0.00151      0.00101
 3742811.85 |       0.00230      0.00291      0.00282      0.00323      0.00313      0.00298      0.00246      0.00168      0.00129
 3742761.85 |       0.00201      0.00209      0.00222      0.00267      0.00272      0.00246      0.00186      0.00128      0.00124
 3742711.85 |       0.00201      0.00208      0.00237      0.00274      0.00299      0.00274      0.00204      0.00142      0.00112
 3742661.85 |       0.00248      0.00277      0.00305      0.00347      0.00373      0.00357      0.00272      0.00172      0.00122
 3742611.85 |       0.00493      0.00664      0.00804      0.00850      0.00867      0.00843      0.00758      0.00266      0.00175
 3742561.85 |       0.00244      0.00407      0.00476      0.00506      0.00516      0.00516      0.00482      0.00289      0.00166
 3742511.85 |       0.00161      0.00213      0.00252      0.00273      0.00303      0.00295      0.00273      0.00218      0.00148
 3742461.85 |       0.00117      0.00142      0.00163      0.00185      0.00203      0.00207      0.00191      0.00165      0.00132
 3742411.85 |       0.00091      0.00105      0.00119      0.00132      0.00144      0.00148      0.00145      0.00133      0.00115
 3742361.85 |       0.00073      0.00083      0.00092      0.00102      0.00110      0.00115      0.00115      0.00109      0.00098

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                    ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                     ***        18:43:44
                                                                                                                    PAGE  28
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
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                    INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
               STCK6       , STCK7       , STCK8       , L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
               L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
               L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    ,  . . .      ,

                         *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                              ** CONC OF DPM      IN MICROGRAMS/M**3                        **

   Y-COORD  |                                          X-COORD (METERS)
   (METERS) |     480743.92    480793.92    480843.92
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3743361.85 |       0.00029      0.00027      0.00024
 3743311.85 |       0.00033      0.00030      0.00027
 3743261.85 |       0.00037      0.00033      0.00030
 3743211.85 |       0.00042      0.00037      0.00032
 3743161.85 |       0.00046      0.00040      0.00035
 3743111.85 |       0.00051      0.00044      0.00038
 3743061.85 |       0.00056      0.00048      0.00041
 3743011.85 |       0.00061      0.00051      0.00043
 3742961.85 |       0.00067      0.00055      0.00046
 3742911.85 |       0.00071      0.00059      0.00048
 3742861.85 |       0.00077      0.00062      0.00050
 3742811.85 |       0.00083      0.00065      0.00053
 3742761.85 |       0.00094      0.00068      0.00055
 3742711.85 |       0.00103      0.00072      0.00057
 3742661.85 |       0.00113      0.00076      0.00059
 3742611.85 |       0.00113      0.00079      0.00061
 3742561.85 |       0.00109      0.00081      0.00063
 3742511.85 |       0.00107      0.00081      0.00063
 3742461.85 |       0.00102      0.00079      0.00062
 3742411.85 |       0.00094      0.00075      0.00061
 3742361.85 |       0.00085      0.00070      0.00058

*** AERMOD - VERSION 22112  ***   *** 19484 Placentia Avenue Industrial                                  ***        04/15/24
*** AERMET - VERSION  16216 ***   *** DPM Opening Year                                                   ***        18:43:44
                                                                                                                  PAGE  29
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                         *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
                             INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
               STCK6       , STCK7       , STCK8       , L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
               L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
               L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
480263.90	3742518.63	0.00138	480320.41	3742523.55	0.00211
480481.51	3742521.83	0.00312	480666.91	3742523.46	0.00190
480806.56	3742873.40	0.00058	479947.54	3742740.30	0.00038

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00867	AT (480493.92, 3742611.85, 438.50, 438.50, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.00850	AT (480443.92, 3742611.85, 438.60, 438.60, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.00843	AT (480543.92, 3742611.85, 438.30, 438.30, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.00804	AT (480393.92, 3742611.85, 439.10, 439.10, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.00758	AT (480593.92, 3742611.85, 438.20, 438.20, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.00664	AT (480343.92, 3742611.85, 439.20, 439.20, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.00516	AT (480543.92, 3742561.85, 438.30, 438.30, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.00516	AT (480493.92, 3742561.85, 438.50, 438.50, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.00506	AT (480443.92, 3742561.85, 438.50, 438.50, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.00493	AT (480293.92, 3742611.85, 438.90, 438.90, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)

```
A Total of           12 Warning Message(s)
A Total of         2028 Informational Message(s)

A Total of        43824 Hours Were Processed

A Total of          978 Calm Hours Identified

A Total of         1050 Missing Hours Identified (  2.40 Percent)


   ******** FATAL ERROR MESSAGES ********
             ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320     349        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     350        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     351        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     352        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     353        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     354        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     355        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
SO W320     356        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
ME W186     893       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used           0.50
ME W187     893       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:      14010101
MX W450   17521       CHKDAT: Record Out of Sequence in Meteorological File at:    2 year gap

   ***********************************
   *** AERMOD Finishes Successfully ***
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EMFAC2021 for Riverside (SC) PM2.5 Running and Idling Exhaust

Area	Season	Veh	Fuel	MdlYr	Speed (Miles/hr)	2026 (gms/mile)	2027 (gms/mile)	2028 (gms/mile)	2029 (gms/mile)	2030 (gms/mile)	2031 (gms/mile)	2032 (gms/mile)	2033 (gms/mile)	2034 (gms/mile)	2035 (gms/mile)	2036 (gms/mile)
Riverside (SC)	*Annual*	*LHDT2*	*DSL*	Aggregated	*0*	0.777544	0.777539	0.77765	0.777228	0.776552	0.772631	0.770784	0.768303	0.765381	0.761339	0.76085
Riverside (SC)	Annual	LHDT2	DSL	Aggregated	5	0.056486	0.053235	0.050727	0.048784	0.047295	0.046041	0.04507	0.044345	0.043925	0.043383	0.043392
Riverside (SC)	Annual	LHDT2	DSL	Aggregated	10	0.04702	0.044449	0.042473	0.040952	0.039803	0.03887	0.03818	0.037707	0.037493	0.037198	0.037256
Riverside (SC)	Annual	LHDT2	DSL	Aggregated	35	0.019459	0.018621	0.017998	0.017541	0.017219	0.016983	0.016838	0.016776	0.01681	0.016819	0.016923
Riverside (SC)	*Annual*	*MHDT*	*DSL*	Aggregated	*0*	0.049764	0.041162	0.034359	0.028849	0.024397	0.020752	0.018038	0.015804	0.014045	0.012547	0.011458
Riverside (SC)	Annual	MHDT	DSL	Aggregated	5	0.032878	0.027462	0.023065	0.019496	0.016589	0.014187	0.012242	0.010647	0.009378	0.008311	0.007445
Riverside (SC)	Annual	MHDT	DSL	Aggregated	10	0.026749	0.022318	0.018721	0.015799	0.013418	0.011449	0.009852	0.008541	0.007498	0.006618	0.005911
Riverside (SC)	Annual	MHDT	DSL	Aggregated	35	0.006597	0.005684	0.004945	0.004336	0.003836	0.003412	0.003062	0.002766	0.002529	0.002319	0.002176
Riverside (SC)	*Annual*	*HHDT*	*DSL*	Aggregated	*0*	0.013923	0.013343	0.012838	0.012276	0.011792	0.011375	0.011065	0.010815	0.010558	0.010383	0.010261
Riverside (SC)	Annual	HHDT	DSL	Aggregated	5	0.013603	0.013294	0.013002	0.012669	0.012344	0.012015	0.011674	0.011385	0.011096	0.010891	0.010738
Riverside (SC)	Annual	HHDT	DSL	Aggregated	10	0.011464	0.01116	0.010875	0.010558	0.01025	0.009941	0.009624	0.009354	0.009087	0.008898	0.008758
Riverside (SC)	Annual	HHDT	DSL	Aggregated	35	0.00773	0.007515	0.00732	0.007119	0.006927	0.006736	0.006543	0.006372	0.006207	0.006082	0.005994

	2026 **5 mph**	2026 **10 mph**	2026 **35 mph**	2026 **0 mph (idling)**
LHDT2	0.08144	0.04702	0.01946	0.77754
MHDT	0.06814	0.02675	0.00660	0.04976
HHDT	0.02111	0.01146	0.00773	0.01392

2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
0.760267	0.759676	0.760052	0.760312	0.76051	0.760671	0.760734	0.760987	0.761186	0.761437	0.761606	0.761852	0.762113	0.762615	0.762615	0.762615	0.762615	0.762615	0.762615
0.043222	0.042986	0.042652	0.04245	0.042365	0.042288	0.042276	0.042073	0.041864	0.041578	0.041324	0.040992	0.040285	0.039094	0.039094	0.039094	0.039094	0.039094	0.039094
0.037157	0.036992	0.03675	0.03661	0.036571	0.036535	0.036541	0.036416	0.036276	0.036077	0.035892	0.035652	0.035053	0.034045	0.034045	0.034045	0.034045	0.034045	0.034045
0.016956	0.016952	0.016912	0.016899	0.016917	0.016928	0.016946	0.016919	0.01688	0.016818	0.016754	0.016672	0.016443	0.016063	0.016063	0.016063	0.016063	0.016063	0.016063
0.010595	0.009878	0.009315	0.008763	0.008359	0.007956	0.00768	0.007413	0.007299	0.00721	0.00714	0.007086	0.007051	0.00702	0.00702	0.00702	0.00702	0.00702	0.00702
0.006754	0.006178	0.005742	0.00532	0.005004	0.004692	0.004432	0.004179	0.004103	0.004044	0.003994	0.003966	0.003944	0.003924	0.003924	0.003924	0.003924	0.003924	0.003924
0.005347	0.004876	0.004519	0.004174	0.003915	0.003659	0.003445	0.003237	0.003173	0.003122	0.00308	0.003054	0.003034	0.003016	0.003016	0.003016	0.003016	0.003016	0.003016
0.002058	0.001957	0.001876	0.001799	0.001735	0.001671	0.001614	0.001561	0.001533	0.001508	0.001485	0.001465	0.001449	0.001434	0.001434	0.001434	0.001434	0.001434	0.001434
0.010171	0.010094	0.010026	0.009959	0.009899	0.009857	0.009823	0.009786	0.009754	0.009726	0.009704	0.009687	0.009675	0.009662	0.009662	0.009662	0.009662	0.009662	0.009662
0.011114	0.010545	0.010469	0.010394	0.010324	0.010266	0.01021	0.010152	0.010107	0.010069	0.010038	0.010032	0.010032	0.010031	0.010031	0.010031	0.010031	0.010031	0.010031
0.008661	0.008579	0.00851	0.008443	0.008382	0.00833	0.008282	0.008233	0.008194	0.008161	0.008134	0.008126	0.008124	0.008121	0.008121	0.008121	0.008121	0.008121	0.008121
0.005922	0.005861	0.005811	0.005769	0.005734	0.005705	0.005682	0.005662	0.005647	0.005635	0.005625	0.005616	0.00561	0.005603	0.005603	0.005603	0.005603	0.005603	0.005603

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