Air Quality, Greenhouse Gas, Health Risk Assessment and Energy Impact Analysis Report for Moreno Valley Farm Bureau Project

Located in
Moreno Valley, California

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EXECUTIVE SUMMARY

The purpose of this air quality, greenhouse gas and energy impact analysis is to provide an assessment of the impacts resulting from development of the proposed 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).

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 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). 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

As the City of Moreno Valley Climate Action Plan (CAP) and General Plan are in the midst of a legal challenge, the project and its emissions were compared to the draft SCAQMD GHG emissions threshold for all land uses and the Riverside County Climate Action Plan (CAP). The project's greenhouse gas (GHG) emissions would not exceed 3,000 MTCO2e/year and would not conflict with the goals of the Riverside County Climate Action Plan (CAP) and would not exceed the draft SCAQMD GHG emissions threshold; therefore, the project’s GHG emissions are less than significant and would not conflict with an applicable

plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

FREEWAY DIESEL EMISSIONS HEALTH RISK ASSESSMENT

All sensitive receptors on the project site (in all of the buildings) would be exposed to a cancer risk in excess of 10 in a million from freeway-related DPM emissions. With the incorporation of MERV 13 filtration in all of the dwelling units on-site (see MM-AQ1 in Section 5 of this report), the cancer risk would be reduced to less than 10 in a million at all residential receptor locations on-site (with doors and windows closed). However, exterior cancer risk, including outside at the pool and clubhouse/gym area, would still exceed 10 in a million.

ENERGY

For new development such as that proposed by the Moreno Valley Farm Bureau 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 residential 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, heath risk assessment and energy impact analysis, project location, proposed development, and study area. Figure 1 shows the regional vicinity and site location, Figure 2 shows the site location, and Figure 3 illustrates the project site plan.

1.1 PURPOSE AND OBJECTIVES

This study was performed to address the possibility of regional/local air quality impacts, global climate change impacts, from project related air emissions and energy-related impacts. 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
- discussion of the air quality and greenhouse gases thresholds of significance
- analysis of the construction related air quality and greenhouse gas emissions
- analysis of the operations related air quality and greenhouse gas emissions
- analysis of the conformity of the proposed project with the SCAQMD AQMP
- analysis of cancer and non-cancer-related health risks from freeway traffic.
- discussion of the project's energy use and impacts, and
- recommendations for mitigation measures

The City of Moreno Valley is the lead agency for this air quality, greenhouse gas, and energy 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.

1.2 PROJECT LOCATION

The proposed project is located in western Moreno Valley at 21150 Box Springs Road, approximately 550 north of the Interstate 215/ State Route 60 freeway interchange.

A map showing the project's regional site and vicinity location is provided on Figure 1.

1.3 PROJECT DESCRIPTION

The project site is the current location of the Moreno Valley County Farm Bureau. The proposed Project includes demolition of the existing structures on-site in order to develop a 139-unit, market-rate multifamily (low-rise) residential development. The project includes 69 parking spaces and 5,190 square foot (SF) clubhouse/gym with a pool.

Figure 2 illustrates the site location and Figure 3 illustrates the proposed site plan.

Figure 1

Regional Location

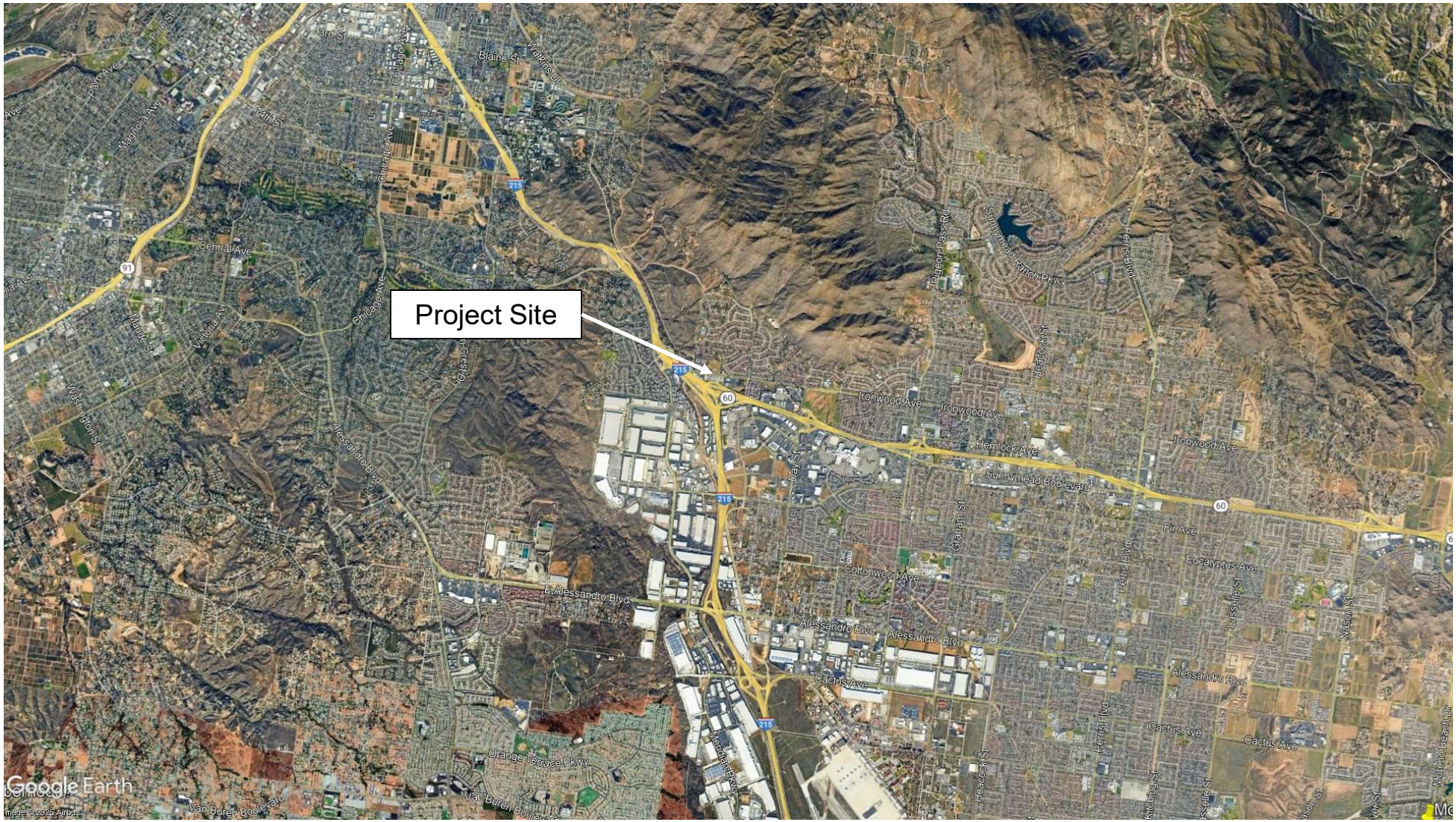
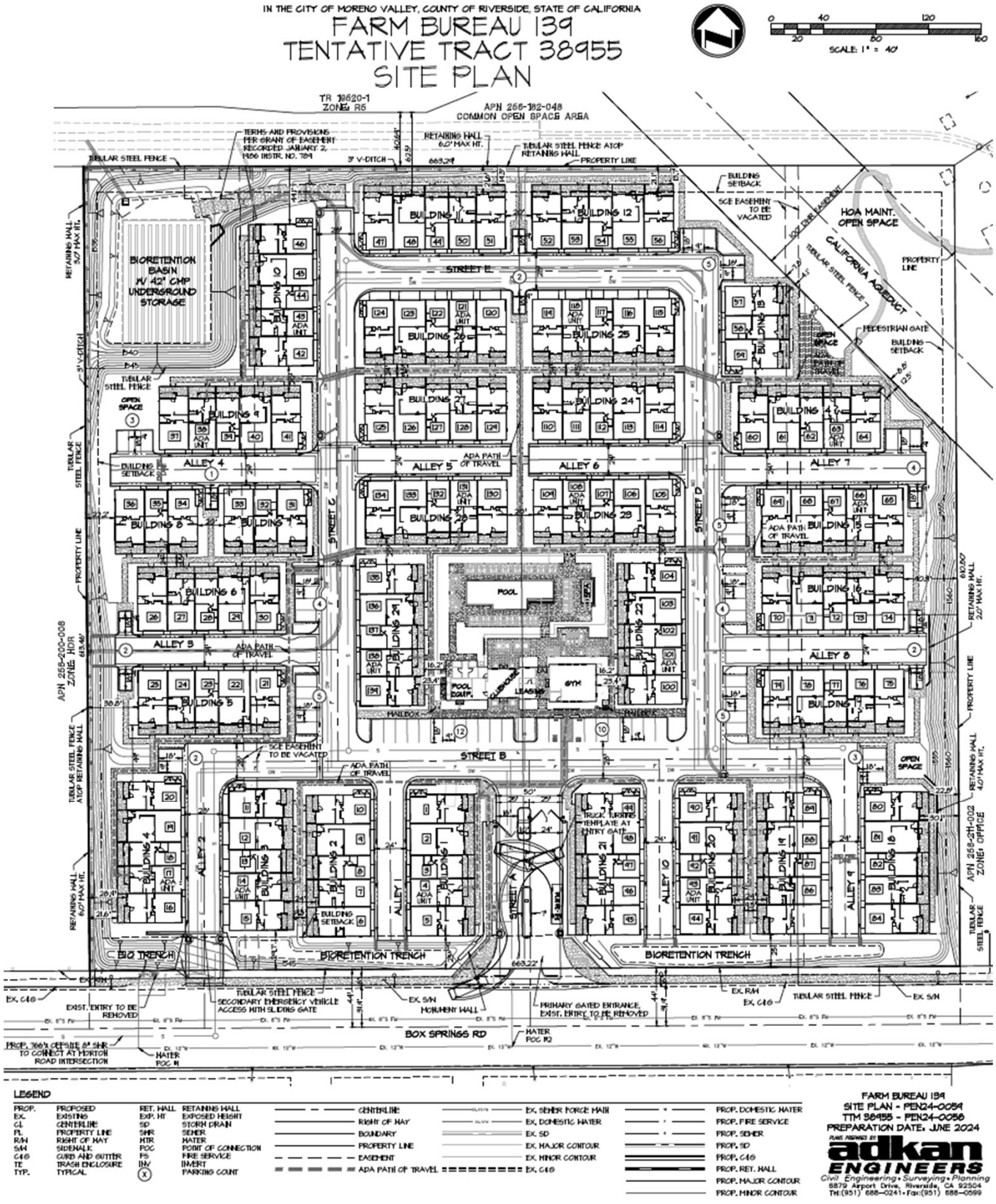


Figure 2

Site Vicinity

Figure 3

Proposed Site Plan



1.4 PHASING AND TIMING

The proposed project is anticipated to be operational in 2027. The project is anticipated to be built in one phase with project construction anticipated to start no sooner than October 9, 2025 and being completed by the June 23, 2027, lasting approximately 20 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]

1.5 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: multi-family residential uses located directly adjacent to the western project boundary, single-family residential uses located adjacent to the northern project boundary (south of Martynia Court), approximately 180 feet (~55 meters) to the east of the project site (east of Lewisia Avenue), and approximately 347 feet (~106 meters) to the north of the project site (south of Pala Foxia Place). Other air quality sensitive land uses are located further from the project site and would experience lower impacts.

[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.

2 AIR QUALITY ANALYSIS

2.1 EXISTING AIR QUALITY CONDITIONS

2.1.1 Local Air Quality

The project is located within the City of Moreno Valley and 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 Riverside (closest station with weather data to the site) are shown below in Table 1. Table 1 shows that July 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.

2.1.2 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 (NO2) can often be seen as a reddish-brown layer over many urban areas. NOx forms 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 NO2, 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.

Table 1
Local Monthly Climate Data

Descriptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	69.1	69.8	73.1	77.6	82.4	88.4	94.6	95.7	91.5	83.5	72.6	68.8
Avg. Min. Temperature	42.3	44.3	46.4	49.8	54.9	58.9	63.3	64.1	60.7	54.1	44.9	41.6
Avg. Total Precipitation (in.)	1.81	2.39	1.79	0.7	0.19	0.08	0.04	0.12	0.15	0.46	0.78	1.39

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7470

Data taken from the Riverside Fire Station 3, CA station (047470) 1981-2010

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 [SO_2]) are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SOx dissolves 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.

2.1.3 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.

Toxic air contaminants 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 toxic air contaminants 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 toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). Diesel particulate matter is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant 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 diesel particulate matter 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 diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature

deaths, and other health problems. Exposure to diesel particulate matter 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. 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 Valley; approximately 52.8 miles southeast of the site. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos

2.2 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, policymaking, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

2.2.1 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 California Air Resource Board (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.

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	9 µg/m^3/annual 35 µg/m^3/24-hour	
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/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf

Table 3
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide	Attainment	Unclassifable/Attainment
Sulfur dioxide	Attainment	Unclassifiable/Attainment
PM10	Nonattainment	Attainment (Maintenance)
PM2.5	Nonattainment	Nonattainment (Serious)

Source (Federal and State Status): California Air Resources Board (2023) https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations & 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.

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 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).

2.2.2 State – California Air Resources Board

The California Air Resources Board (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 SAFE Rule was repealed on December 21, 2021. NHTSA is in the process of adopting more stringent corporate average fuel economy (CAFE) standards for model year 2024–2026 vehicles.

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, SO_2, NO_2, 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 $\mu g/m^3$ and established an annual average standard for PM2.5 of 12 $\mu g/m^3$. These standards were approved by the Office of Administrative Law in June 2003 and are now effective.

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 once-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 toxic air contaminants for use by certain categories of stationary sources. The bill requires those stationary sources to report their annual emissions of criteria air pollutants and toxic air contaminants, 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 toxic air contaminants 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.

2.2.3 Regional – South Coast Air Quality Management District (SCAQMD)

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.

Air Quality Management Plan

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 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 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.)

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

- 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 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 toxic air contaminants.

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 Salton Sea portion of 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 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

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

Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

On May 7, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy) for federal transportation conformity purposes only. In light of the COVID-19 pandemic, the Regional Council will consider approval of Connect SoCal in its entirety and for all other purposes within 120 days from May 7, 2020. 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.

2.2.4 Local – City of Moreno Valley

Local jurisdictions, such as the City of Moreno Valley, 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 City Moreno Valley General Plan 2040 was adopted on June 15, 2021. The goal and policies related to air quality that are applicable to the proposed project from the Environmental Justice Element of the recently adopted Moreno Valley General Plan 2040 have been included below.

Goal EJ-1
Reduce pollution exposure and improve community health.

Policies

EJ.1-1 Coordinate air quality planning efforts with other local, regional, and State agencies.

EJ.1-3 Require new development that would locate sensitive uses adjacent to sources of toxic air contaminants (TAC) to be designed to minimize any potential health risks, consistent with State law.

EJ.1-6 Ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate mitigation measures and best practices.

EJ.1-7 Require new large commercial or light industrial projects to develop and implement a plan to minimize truck idling in order to reduce diesel particulate emissions.

EJ.1-8 Support the incorporation of new technologies and design and construction techniques in new development that minimize pollution and its impacts.

EJ.1-9 Designate truck routes that avoid sensitive land uses, where feasible.

2.3 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 Metropolitan Riverside Air Monitoring Area (Source Receptor Area [SRA] 23). The nearest air monitoring station to the project site is the Riverside-Rubidoux–5888 Mission Boulevard Monitoring Station (Riverside Station Station). The Riverside Station is located approximately 7.8 miles north-northwest of the project site. 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 Riverside Station.

Table 4 summarizes 2021 through 2023 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, Particulate Matter (PM10), and PM2.5 standards.

Ozone

During the 2021 to 2023 monitoring period, the State 1-hour concentration standard for ozone was exceeded for 20 days in 2021, 30 days in 2022 and 48 days in 2023 at the Riverside Station. The State and federal 8-hour ozone standard has been exceeded between 55 and 70 days each year over the past three years at the Riverside 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 Riverside Station did not record an exceedance of the state or federal 8-hour CO standard for the last three years.

Nitrogen Dioxide

The Riverside 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 three and 75 days each year over the past three years at the Riverside Station. Over the past three years, the Federal 24-hour standards for PM10 were not exceeded at the Riverside Station.

Over the past three years, the Federal 24-hour standard for PM2.5 was exceeded between one and 11 days each year at the Riverside 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		
		2021	2022	2023
Ozone:	Maximum 1-Hour Concentration (ppm)	0.117	0.122	0.139
	Days > CAAQS (0.09 ppm)	**20**	**30**	48
	Maximum 8-Hour Concentration (ppm)	0.097	0.095	0.106
	Days > NAAQS (0.070 ppm)	**55**	**70**	**69**
	Days > CAAQS (0.070 ppm)	**55**	**70**	**69**
Carbon Monoxide:	Maximum 8-Hour Concentration (ppm)	*	*	*
	Days > CAAQS (9 ppm)	0	0	0
	Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:	Maximum 1-Hour Concentration (ppm)	0.052	0.056	0.055
	Days > CAAQS (0.18 ppm)	0	0	0
Inhalable Particulates (PM10):	Maximum 24-Hour Concentration (µg/m^3)	76.5	153.6	166.5
	Days > NAAQS (150 µg/m^3)	0	0	**1**
	Days > CAAQS (50 µg/m^3)	**75**	**5**	**3**
	Annual Average (µg/m^3)	33.2	30.0	*
Ultra-Fine Particulates (PM2.5):	Maximum 24-Hour Concentration (µg/m^3)	82.1	38.5	74.3
	Days > NAAQS (35 µg/m^3)	**11**	**1**	**2**
	Annual Average (µg/m^3)	12.7	10.8	10.6

Source: http://www.arb.ca.gov/adam/topfour/topfour1.php. Data from the Riverside-Rubidoux 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.

2.4 AIR QUALITY STANDARDS

2.4.1 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;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- 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:

[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.

- 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.

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), June 2003 (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.

[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 commercial land use projects such as the Project. As a result, lead emissions are not further evaluated herein.

Toxic Air Contaminants

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

1. If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
2. Toxic air contaminants 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 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).

As determined in the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369 (CBIA) case the California Supreme Court determined that CEQA does not generally require an impact analysis of the existing environmental conditions on the future residents of a proposed project and generally only requires an analysis of the proposed project's impact on the environment. However, the CBIA case also stated that when a proposed project brings development and people into an area already subject to specific hazards and the new development/people exacerbate the existing hazards, then CEQA requires an analysis of the hazards and the proposed project's effect in terms of increasing the risks related to those hazards. In regards to air quality hazards, TACs are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As such, if a proposed project would not exacerbate pre-existing hazards (e.g., TAC health risks) then an analysis of those hazards and the proposed project's effect on increasing those hazards is not required.

The project proposes residential uses and will not be a source of toxic air contaminants. The existing conditions on the project site only include commercial uses that will be removed and does not contain any operational land uses that emit toxic air contaminants. However, the project is locating sensitive receptors in proximity to freeway-related DPM sources, and the SCQAMD recommend that an HRA be conducted for projects that place new sensitive receptors within 500 feet of a freeway. As the proposed project will be locating sensitive receptors within 500 feet of the SR-60 and I-215 freeways, per SCAQMD recommendations, a health risk assessment was performed for report for informational and disclosure purposes, and is available in in Section 4 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		
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, Odor and GHG Thresholds	
TACs	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 SCAQMD Rule 402
GHG	10,000 MT/yr CO2e for industrial projects

Ambient Air Quality Standards	
Pollutant	SCAQMD Standards
NO_2 -1-hour average	0.18 ppm (338 µg/m^3)
PM10 -24-hour average Construction Operations	 10.4 µg/m^3 2.5 ug/m^3
PM2.5 -24-hour average Construction Operations	 10.4 µg/m^3 2.5 µg/m^3
SO_2 1-hour average 24-hour average	 0.25 ppm 0.04 ppm
CO 1-hour average 8-hour average	 20 ppm (23,000 µg/m^3) 9 ppm (10,000 µg/m^3)
Lead 30-day average Rolling 3-month average Quarterly average	 1.5 µg/m^3 0.15 µg/m^3 1.5 µg/m^3

https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25

2.5 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: demolition of existing buildings, slab and parking lot totally 1,285 tons, site preparation and grading of approximately 9.32 gross acres; building construction of 139 low-rise apartment units (177,195 square feet [SF] plus 23,165 SF; for a total of 200,360 SF) with a 5,190 SF clubhouse/gym/pool equipment area, and approximately 4,138 SF of landscaping; paving of a parking lot with 69 automobile parking spaces; and application of architectural coatings. The project is anticipated to import approximately 4,000 cubic yards (CY) of material during grading. See Appendix B for more details.

The proposed project is anticipated to start construction no sooner than October 9, 2025, taking approximately 20 months, and end construction approximately June 23, 2027. The project will be fully operational in 2027.

2.5.1 Methodology

The following provides a discussion of the methodology used to calculate 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 2022.1.1.29) 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.

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 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, 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 9.32 gross 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) demolition, (2) site preparation, (3) grading, (4) building construction, (5) paving, and (6) 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.

2.5.2 Construction-Related Regional Impacts

The maximum summer or winter criteria pollutant emissions from the proposed project's construction-related criteria pollutant emissions are shown below in Table 6. Construction, painting and paving phases may overlap, and the maximum emissions shown in Table 6 reflect this. Table 6 shows that none of the project's emissions will exceed SCAQMD regional thresholds. Therefore, a less than significant air quality impact would occur from construction of the proposed project.

2.5.3 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 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 Metropolitan Riverside SRA 23 and a disturbance value of five acres per day.[6] 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 are multi-family residential uses located directly adjacent to the western project boundary, single-family residential uses located adjacent to the northern project boundary (south of Martynia Court), approximately 180 feet (~55 meters) to the east of the project site (east of Lewisia Avenue), and approximately 347 feet (~106 meters) to the north of the project site (south of Pala Foxia Place); therefore, the SCAQMD Look-up Tables for 25 meters were used. Table 7 shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds.

The data provided in Table 7 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.

2.5.4 Construction-Related Human 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 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.

2.5.5 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], 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 20 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 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

[6] The project site is 9.32 acres and the 5-acre LSTs can be used as screening thresholds.
[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.

Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. Therefore, impacts from TACs during construction would be less than significant.

Table 6
Construction-Related Regional Pollutant Emissions

Activity	Pollutant Emissions (lbs/day)					
	ROG	NOx	CO	SO_2	PM10	PM2.5
Maximum Daily Emissions[1]	11.41	31.73	34.08	0.05	9.26	5.25
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Source: CalEEMod Version 2022.1.1.29

(1) Includes both on-site and off-site emissions. On-site site preparation and grading PM-10 and PM-2.5 emissions show compliance with SCAQMD Rule 403 for fugitive dust. Construction, paving and painting phases may overlap.

Table 7
Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Demolition	22.20	19.92	2.10	1.02
Site Preparation	31.64	30.18	9.03	5.20
Grading	16.27	17.91	3.49	2.00
Building Construction	9.85	12.97	0.38	0.35
Paving	7.12	9.94	0.32	0.29
Architectural Coating	0.86	1.13	0.02	0.02
SCAQMD Thresholds[1]	**270**	**1,577**	**13**	**8**
Exceeds Threshold?	No	No	No	No

Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 5 acres at a distance of 25 meters, in SRA 23 Metropolitan Riverside.

(1) The nearest sensitive receptors to the project include: multi-family residential uses located directly adjacent to the western project boundary, single-family residential uses located adjacent to the northern project boundary (south of Martynia Court), approximately 180 feet (~55 meters) to the east of the project site (east of Lewisia Avenue), and approximately 347 feet (~106 meters) to the north of the project site (south of Pala Foxia Place).

2.5.6 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 of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor 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.

2.6 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 impacts with the on-going operations of the proposed project.

2.6.1 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 use of the CalEEMod model. The operating emissions were based on the year 2027, which is the anticipated opening year for the proposed project. The operations 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 *Farm Bureau 140 (PEN24-0058, TTM 38955) Trip Generation (TG) Assessment* ("TGA") prepared by Urban Crossroads (June 14, 2024) into the CalEEMod Model. The TGA found that the proposed project would create 6.74 trips/DU per weekday and generate a total of 944 daily traffic trips. The trip generation rates for Saturday and Sunday were obtained from the *ITE Trip General Manual (11th Edition, 2021*) for ITE land use (220) and were 4.55 trips/DU for Saturday and 3.86 trips/DU for Sunday.

Area Sources

Per the California Air Pollution Control Officers Association (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. Per the applicant, the project will incorporate solar and be sized for net zero use of electricity. Therefore, the use of solar for the project is shown as mitigation in the CalEEMod output.

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 8. The results show none of the criteria pollutants will exceed the SCAQMD regional thresholds. Therefore, the proposed project would result in less than significant impact.

2.6.2 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. The Los Angeles County Metropolitan Transportation Authority[8] 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.

The TGA showed that the proposed project would generate a maximum of approximately 944 daily vehicle trips, with 56 trips (13 inbound, 43 outbound) produced in the AM peak hour and 71 trips (45 inbound, 26 outbound) produced in the PM peak hour on a "typical" weekday. The City Guidelines indicates a project may be exempt from preparing a Traffic Impact Analysis (TIA) if the project generates less than 100 peak hour trips and has less than 150 units. Therefore, the Project would not require any specific intersection analysis that includes LOS. Therefore, as the project's contribution to the intersection volume is not enough to trigger a TIA, it would fall 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.

3 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 Air Basin. The nearest sensitive receptors include: multi-family residential uses located directly adjacent to the western project boundary, single-family residential uses located adjacent to the northern project boundary (south of Martynia Court), approximately 180 feet (~55 meters) to the east of the project site (east of Lewisia Avenue), and approximately 347 feet (~106 meters) to the north of the project site (south of Pala Foxia Place).

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer facilities. The proposed project consists of the development of the site with residential uses and does not include such uses as mentioned above. Therefore, due the lack of stationary source emissions, no long-term localized significance threshold analysis is warranted.

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

3.1.1 Operations-Related Human 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 emissions of criteria pollutants during operation of the project do not exceed the applicable thresholds, the proposed project would not contribute to any long-term health impacts related to nonattainment of the ambient air quality standards. Therefore, no significant adverse acute health impacts as a result of project operation are anticipated.

3.1.2 Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from intermittent delivery/trash 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.

Table 8
Regional Operational Pollutant Emissions

Activity	Pollutant Emissions (lbs/day)					
	ROG	NOx	CO	SO2	PM10	PM2.5
Maximum Daily Emissions	9.34	4.79	45.16	0.10	8.77	2.31
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2022.1.1.29.

3.2 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;[9] 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.

[9] 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.

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 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 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 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 quality 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 Moreno Valley General Plan Land Use Plan defines the assumptions that are represented in the AQMP.

The project site is currently designated as HDR, High Density Residential. The current zoning for the site is R-15 multi-family. The project proposes a gated community of 139 townhome units on ~9.33 acres consisting of 28 buildings as well as a clubhouse with pool and amenity area. Therefore, as the project is a multi-family residential use, the project is consistent with the City's existing 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 GLOBAL CLIMATE CHANGE ANALYSIS

3.1 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.

3.1.0 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).

3.1.1 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.

3.1.2 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.

3.1.3 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).

3.1.4 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.

3.1.5 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.

3.1.6 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.

3.1.7 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 CO2. 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.

3.1.8 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.

3.2 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 9. As shown in Table 9, the global warming potential of GHGs ranges from 1 to 22,800.

Table 9
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

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.

3.3 GREENHOUSE GAS STANDARDS AND REGULATIONS

3.3.1 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 entered into force on 4 November 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession with the Depositary.

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake take 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. President Donald Trump withdrew the U.S. from the Paris Agreement on January 20, 2025.

3.3.2 Federal

The United States Environmental Protection Agency (USEPA) 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-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA 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 USEPA has statutory authority under Section 202 of the federal Clean Air Act (CAA) to regulate GHGs. The court did not hold that the USEPA 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 USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO2, CH4, N2O, HFCs, PFCs, and SF6) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA consistently with the United States Supreme Court decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA 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 USEPA 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.[10]

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 USEPA, 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)[11] 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.[12] In 2017, the USEPA recommended no change to the GHG standards for light-duty vehicles for model years 2022-2025.

[10] 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.

[11] 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.

[12] 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.

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 associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.[13]

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 proposes to fully repeal the regulatory text and appendices promulgated in the SAFE I Rule. In addition, this document proposes 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 proposes to establish a clean slate with respect to NHTSA's regulations and interpretations concerning preemption under the Energy Policy and Conservation Act (EPCA).[14]

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.[15] 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.[16]

[13] 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.

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

[15] 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

[16] 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

3.3.3 State of California

California Air Resources Board

CARB, a part of the 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 (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 California Air Resources Board (CARB) adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter 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. 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 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 CO2 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-3-05

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.

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

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 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."[17] 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:

- 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.

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

- 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 California Air Resources Board, 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 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 "backloaded", 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 in 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 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 incorporated 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 Bills 1078, 107, and X1-2 and Executive Orders S-14-08 and S-21-09

Senate Bill 1078 (SB 1078) 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) changed the target date to 2010. Executive Order S-14-08 was signed on November 2008 and expands the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed 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 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 in September of 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 in September of 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 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.

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 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 GHG emissions.

Per Section 100 Scope, the 2019 Title 24, Part 6 Building Code now requires 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 provide MERV 13 rated air filters 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. [18] All buildings for which an application for a building permit is submitted on or after January 1, 2023, must follow the 2022 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.
- 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.[19,20]

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

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. The 2016 version of the California Green Building Standards became effective January 1, 2017.

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 GHG emissions. During the

[18] 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.
[19] https://www.lightnowblog.com/2021/08/california-energy-commission-adopts-2022-building-energy-efficiency-standards/
[20] 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

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 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 USEPA 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 USEPA'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.[21]

In the 2022 version of the 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.

In the 2022 Code, 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. [22]

However, as this project does not propose any buildings, building efficiency regulations would not be applicable

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.

[21] California Building Standards Commission (CBSC). 2022. California Green Building Standards. Website: https://codes.iccsafe.org/content/CAGBC2022P1.
[22] https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes

- 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 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[23]

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.

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.

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

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.[24]

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."[25] 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.

3.3.4 Regional – South Coast Air Quality Management District

The project is within the Salton Sea portion of 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:

[24] 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
[25] 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

On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). The SCAQMD permit threshold consists of five tiers. However, the SCAQMD is not the lead agency for this project. Therefore, the five permit threshold tiers do not apply to the proposed project.

The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"); however, the SCAQMD Board has not approved the thresholds as of the date of the Notice of Preparation. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- 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 land use types: 3,000 $MTCO_2e$ per year
    - Based on 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.
    - Based on land type: Industrial (where SCAQMD is the lead agency), 10,000 $MTCO_2e$ per year.
- Tier 4 has the following options:
    - Option 1: Reduce emissions from business as usual (BAU) by a certain percentage; this percentage is currently undefined.

- Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
- Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$/SP/year for projects and 6.6 $MTCO_2e$/SP/year for plans;
- Option 3, 2035 target: 3.0 $MTCO_2e$/SP/year for projects and 4.1 $MTCO_2e$/SP/year for plans.

- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap carbon dioxide concentrations at 450 ppm, thus stabilizing global climate. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to a CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact report, which includes analyzing feasible alternatives and imposing feasible mitigation measures. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that staff estimates that these GHG emissions would account for slightly less than one percent of future 2050 statewide GHG emissions target (85 MMTCO2eq/year). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to BACT for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility.

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 MTCO2e 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.

3.3.5 Local – City of Moreno Valley

City of Moreno Valley Climate Action Plan

The City of Moreno Valley Climate Action Plan (CAP) was recently adopted on June 15, 2021. The CAP has been designed to reinforce the City's commitment to reducing greenhouse gas (GHG) emissions and demonstrate how the City will comply with State of California's GHG emission reduction standards.

The CAP reflects guidelines established in the 2017 Scoping Plan prepared by the California Air Resources Board (CARB). The Scoping Plan, designed to implement the State's not-to-exceed GHG emission targets set in Executive Order S-3-15 and Senate Bill 32, recommends that local governments target 6.0 metric tons carbon dioxide equivalent ($MTCO_2e$) per capita per year in 2030 and 2.0 $MTCO_2e$ per capita per year in 2050 in their CAPs.

The GHG emission targets proposed for the Moreno Valley CAP are based on the goals established by EO S-3-15 and SB 32, following the CAP guidelines established in the 2017 Scoping Plan. The horizon year for analysis in the proposed Moreno Valley CAP is 2040, corresponding with the General Plan update horizon. The proposed 2040 target of four $MTCO_2e$ per capita per year is determined using a linear trajectory in emissions reduction between 2030 and 2050. The CAP includes GHG reduction measure to close the emissions "gap" between emissions targets and forecast emissions for 2040. These measures are designed to reduce emission in the following sectors: transportation, industrial, residential, commercial, off-road equipment, public services and public lighting, and natural resources.

City of Moreno Valley General Plan

On June 15, 2021, the City of Moreno Valley City Council approved and adopted the City of Moreno Valley General Plan 2040 Update (referred to herein as the "2040 General Plan"), a Change of Zone and Municipal Code Update, and a Climate Action Plan (CAP), and certified an EIR (State Clearinghouse [SCH]

No. 2020039022), as having been prepared in compliance with the California Environmental Quality Act (CEQA) in connection with the approvals. A lawsuit entitled Sierra Club v. The City of Moreno Valley, Riverside Superior Court Case No. CVRI2103300, challenged the validity of the 2040 General Plan, the CAP, and the EIR. In June 2024, the City Council set aside the 2021 approvals and certification, based on a May 2024 ruling and judgment of the court. The City is in the process of readopting the 2040 General Plan, Municipal Code, Zoning, and CAP consistent with the court's decision and issued a Notice of Preparation of a Revised Environmental Impact Report for MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Municipal Code and Zoning (including Zoning Atlas) Amendments, and Climate Action Plan on July 30, 2024.

3.4 SIGNIFICANCE THRESHOLDS

3.4.1 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.[26]

3.4.2 Thresholds of Significance for this Project

To determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD draft screening threshold of 3,000 MTCO2e per year for all land uses.

3.5 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 2022.1.1.29 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.

[26] 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.

3.5.1 Area Sources

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

3.5.2 Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. As stated previously, project will provide enough solar power for the site to be net zero. The reduced emissions are shown as mitigation in the CalEEMod output (Appendix B).

3.5.3 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 based on the trip generation rates as detailed in Section 2. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips 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.

3.5.4 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.

3.5.5 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.

3.5.6 Construction

The construction related GHG emissions were also included in the analysis and were based on a 30-year amortization rate. The construction related GHG emissions were calculated by CalEEMod using the methodology as detailed above in Section 2.

3.5.7 Project Greenhouse Gas Emissions

The GHG emissions have been calculated based on the parameters described above. A summary of the results are shown below in Table 10 and the CalEEMod Model run for the proposed project is provided in Appendix B. Table 10 shows that the total greenhouse gas emissions for the proposed project (including the reduction in energy use for use of solar power) would be 1,637.33 $MTCO_2e$ per year.

Table 10
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	13.70	1,538.00	1,551.70	1.44	0.07	1,610.80
Construction[1]	0.00	29.73	29.73	0.00	0.00	30.07
Total Emissions	13.70	1,567.73	1,581.43	1.44	0.07	**1,637.33**

Source: CalEEMod Version 2022.1.1.29 for Opening Year 2027.

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

Note: Includes reduction from use of solar on-site that will provide 100 percent of the site's needs.

3.6 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 GHGs. As stated above, a lawsuit entitled Sierra Club v. The City of Moreno Valley, Riverside Superior Court Case No. CVRI2103300, challenged the validity of the 2040 General Plan, the CAP, and the EIR. In June 2024, the City Council set aside the 2021 approvals and certification, based on a May 2024 ruling and judgment of the court. The City is in the process of readopting the 2040 General Plan, Municipal Code, Zoning, and CAP consistent with the court's decision and issued a Notice of Preparation of a Revised Environmental Impact Report for MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Municipal Code and Zoning (including Zoning Atlas) Amendments, and Climate Action Plan on July 30, 2024.

As the City's CAP is currently not valid, and the project is located in Moreno Valley, within the County of Riverside, the project and its GHG emissions have been compared to the goals of the County of Riverside CAP Update.

Per the County's CAP Update, the County adopted its first Climate Action Plan (CAP) in 2015 which set a target to reduce emissions back to 1990 levels by the year 2020 as recommended in the AB 32 Scoping Plan. Furthermore, the goals and supporting measures within the County's CAP Update are proposed to reflect and ensure compliance with changes in the local and State policies and regulations such as SB 32 and California's 2017 Climate Change Scoping Plan. Therefore, compliance with the County's CAP in turn reflects consistency with the goals of the CARB Scoping Plan, Assembly Bill (AB) 32 and Senate Bill (SB) 32.

According to the County's CAP Update, projects that do not exceed emissions of 3,000 MTCO2e per year are also required to include the following efficiency measures:

- Energy efficiency matching or exceeding the Title 24 requirements in effect as of January 2017, and
- Water conservation measures that match the California Green Building Code in effect as of January 2017.

At a level of 1,637.33 MTCO2e/year, the GHG emissions generated by the proposed project would not exceed the County of Riverside CAP Update screening threshold of 3,000 metric tons per year of CO2e. Therefore, as the project would comply with the goals of the County of Riverside CAP, the project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

3.7 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."[27] 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.

The state has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. Currently, the County of Riverside CAP Update's initial screening procedure is to determine if a project will emit 3,000 MTCO2e per year or more. Projects that do not exceed this threshold require no further climate change analysis. Therefore, consistent with CEQA Guidelines Section 15064h(3),[28] the County, 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 GHG Reduction Plans and Policies section above, the project would be consistent with the goals and objectives of the County of Riverside CAP Update.

Thus, given the project's consistency with the County of Riverside CAP Update emission reduction goals, the project's incremental contribution to GHG emissions and their effects on climate change would not be cumulatively considerable.

[27] 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).

[28] 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."

4 DIESEL EMISSIONS HEALTH RISK ASSESSMENT

4.1 BACKGROUND INFORMATION

The proposed project would be exposed to toxic air contaminant emissions from diesel truck emissions from nearby SR-60 and I-215 freeway vehicular DPM sources. In the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369 (CBIA) case the California Supreme Court determined that CEQA does not generally require an impact analysis of the existing environmental conditions on the future residents of a proposed project and generally only requires an analysis of the proposed project's impact on the environment. However, the CBIA case also stated that when a proposed project brings development and people into an area already subject to specific hazards and the new development/people exacerbate the existing hazards, then CEQA requires an analysis of the hazards and the proposed project's effect in terms of increasing the risks related to those hazards. In regards to air quality hazards, TACs are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As such, if a proposed project would not exacerbate pre-existing hazards (e.g., TAC health risks) then an analysis of those hazards and the proposed project's effect on increasing those hazards is not required. However, as the project is a proposed multi-family residential use and will not be a source of toxic air contaminants, and the existing conditions on the project site does not contain any operational land uses that emit toxic air contaminants, the following operational health risk assessment was performed for informational and disclosure purposes.

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.

4.2 OPERATIONAL HEALTH RISK ASSESSMENT METHODOLOGY

The CARB Air Quality and Land Use Handbook (CARB Handbook) provides an advisory recommendation to avoid the locating of new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. The boundary lines of the proposed multi-family residential uses are within approximately 450 feet of the closest lane of the SR-60 freeway. The Escondido freeway (I-215) also intersects SR-60 as this location. The California Department of Transportation (Caltrans) volume counts show 2022 AADT numbers for SR60 of 145,000 (ahead AADT) at the segment of 60 freeway, east junction route 215 with 15,225 (10.5%) of those vehicles being trucks. Caltrans volume counts show 2022 AADT numbers for I-215 of 152,000 (back AADT) at the segment of 215

freeway, junction route 60 east with 22,040 (14.5%) of those vehicles being trucks. Information was not available from Caltrans for volumes on the freeway ramps in the project vicinity.

To determine the potential health risk from SR-60 and I-215 diesel emissions sources to the future residents of the project site, a health risk estimate was performed.

4.2.1 Estimate of Emissions Factors

The DPM emission factors for the various vehicle types were derived from the CARB EMFAC2021 mobile source emission model for the South Coast Air Basin for the opening year 2027 and are shown in Table 11. It should be noted that the DPM emissions on both the gram per mile and gram per idle hour bases have declined beyond 2027 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.

4.2.2 Emissions Source Characterization

Each of the emission source types described above also requires geometrical and emission release specifications for use in the air dispersion model. Table 12 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 12:

Line source: A series of volume sources along a path, for example, vehicular volumes along a roadway (shown as a blue line on Figure 4).

Figure 4 provides the location of the proposed receptors (shown by orange triangles) and emission source locations, shown by the blue line along each direction of SR 60 and I-215 (as the emissions are calculated for both the westbound and eastbound lanes of SR-60 and the northbound and southbound lanes of I-215). The multi-family residential use boundary area is outlined in pink.

4.2.3 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 proposed residential uses within 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. A receptor Pool_10 was included to show the potential exterior impacts at the pool/clubhouse area; however, it should be noted that thresholds would not apply at this location as no sensitive receptor would be living at this location. To ensure that impacts to receptors of all heights were assessed, the receptor height is 0 meters. The locations of the receptors are shown as orange triangles on Figure 4.

4.2.4 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. It captures the essential atmospheric physical processes and provides reasonable estimates over a wide range of meteorological conditions and modeling scenarios. AERMAP, which assigns detailed terrain information, was run prior to running AERMOD.

General Model Assumptions

The basic options used in the dispersion modeling are summarized in Table 13

Meteorological Data

Meteorological data (processed with the ADJ_U option) from the Air District's Riverside 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 5).

Table 11

DPM Vehicular Emissions Factors[1]

Vehicle Type	MPH assumed for vehicle type	(2027) Average DPM Exhaust Emissions Factor(g/mi)
Light Duty Auto (LDA)	70	0.017824002
Light Duty Truck 1 (LDT1)	70	0.235580126
Light Duty Truck 2 (LDT2)	70	0.003517293
Medium Duty Truck (MDV)	60	0.004620004
Light-Heavy Duty Truck 1 (LHDT1)	60	0.011801779
Light-Heavy Duty Truck 2 (LHDT2)	60	0.012448994
Medium-Heavy Duty Truck (MHDT)	55	0.008688
Heavy-Heavy Duty Truck (HHDT)	55	0.020704

Notes:

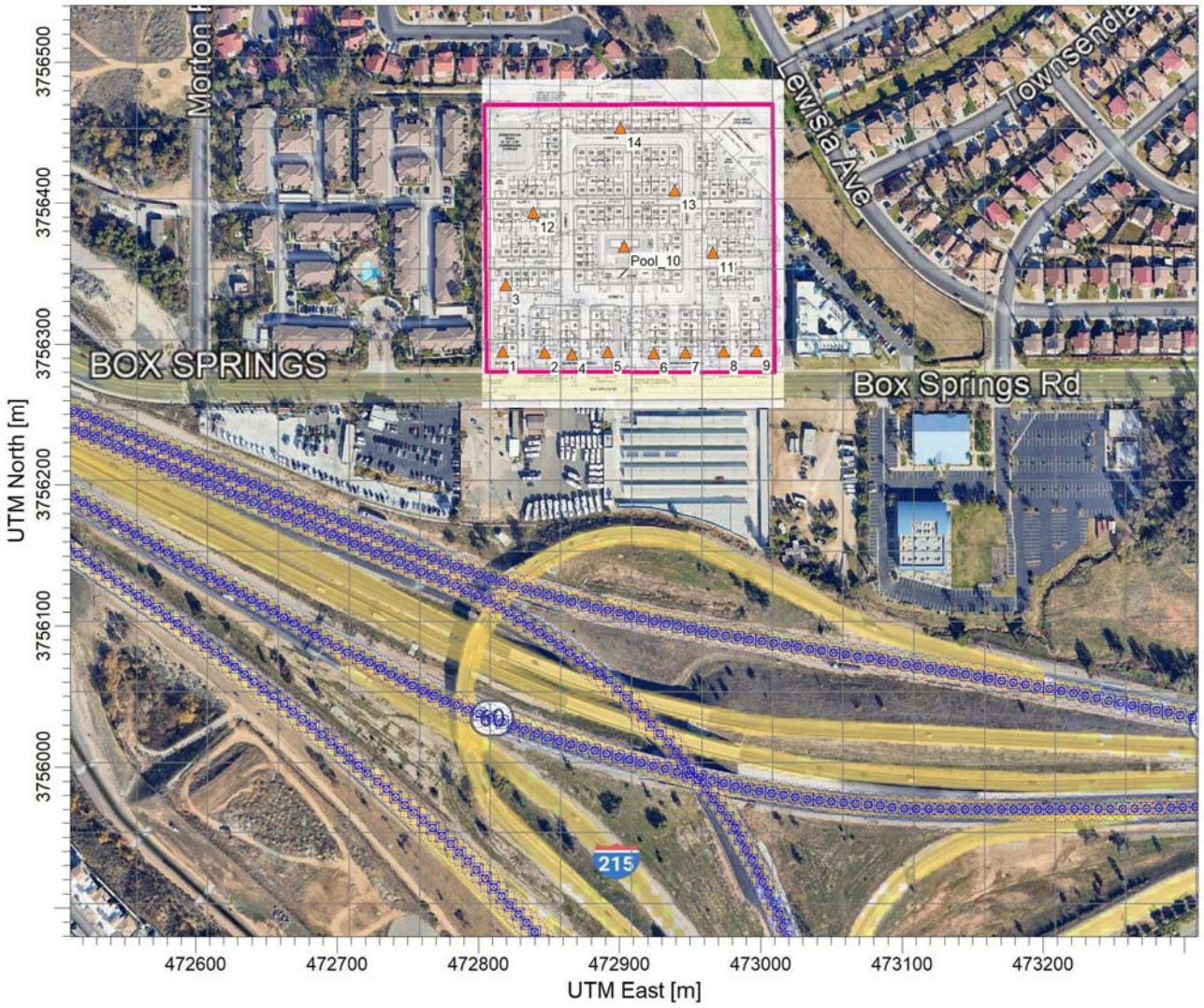
(1) Source: EMFAC2021 for South Coast.

Table 12
Summary of Emission Configurations

Emission Source Type	Geometric Configuration	Relevant Assumptions
Off-Site Diesel Traffic	Line Volume Sources	Release height: 3.5 meters
		Vehicle speed: See Table 11
		Length of the line sources (SR-60 Freeway segment south of project site and I-215 Freeway segment south of the site)
		Vehicle types: see Table 11
		Emission factor: CARB EMFAC2021

Figure 4

Source and Receptor Locations



Orange triangles = receptors

Blue lines = freeway DPM sources

Pink line= project boundary

N

Figure 5

Windrose – Riverside Airport

WIND ROSE PLOT:
Station #3171

DISPLAY:
Wind Speed
Direction (blowing from)

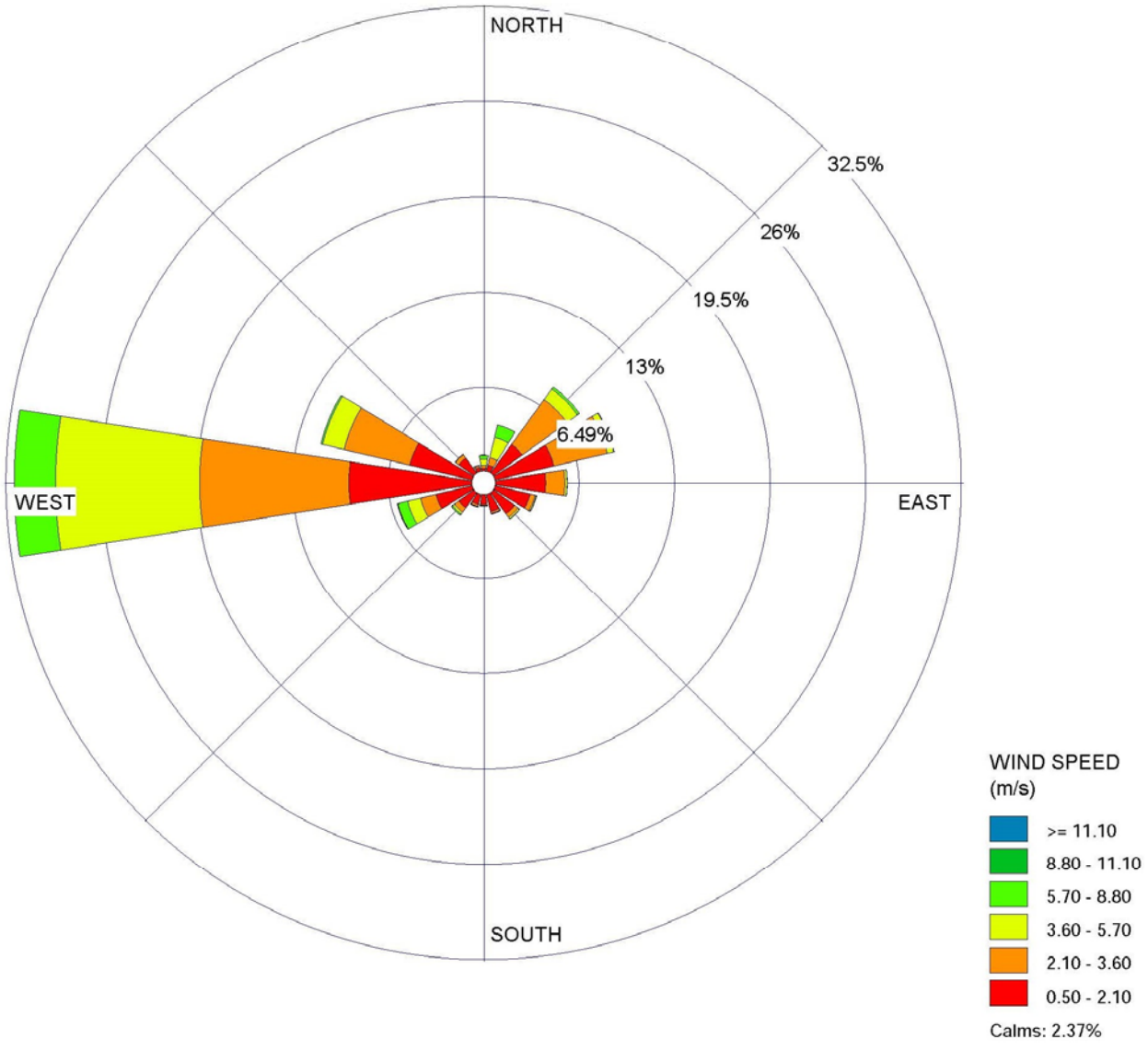


Table 13
General Modeling Assumptions - AERMOD Model

Feature	Option Selected
Zone	11 North
Terrain processing	AERMAP NED GEOTIFF (30 m)
Emission source configuration	See Table 12
Regulatory dispersion options	Default
Land use	Urban[1]
Coordinate system	UTM
Receptor height	0 meters above ground[1]
Meteorological data	SCAQMD Riverside Airport

Notes:

(1) Per SCAQMD AERMOD guidance methodology, available at http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/modeling-guidance

4.3 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/m3)] = (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] = 0.85 for 3rd trimester to 2 years of age, 0.72 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.

Table 14 shows the cancer risk for the unborn child during the 3rd trimester (0.25-Year), Table 15 shows the cancer risk to infants (0-2 years), Table 16 shows the cancer risk to children ages 2 to 16 years and Table 17 shows the cancer risk as that child becomes an adult (years 16-30). The highest cancer risk corresponds to children 2-16 years (see Table 16), and is at receptor 1, with a maximum risk of 14.98 in one million. The maximum 3rd trimester (0.25-year) cancer risk is at receptor 1; with a maximum cancer risk of 0.56 in a million. The highest infant (0-2 years) cancer risk is at receptor 1; with a maximum risk of 13.6 in one million. The highest adult (16-30 years) cancer risk is also at receptor 1; with a maximum risk of 1.66 in one million. Infants 0-2 years at receptor locations 1 through 7 are expose to cancer risks in excess of 10 in a million. Children 2-16 years are receptors 1 through 9 are also exposed to cancer risks in

excess of 10 in a million. However, no unborn children (3rd trimester) or adults (16-30 years) would be exposed to cancer risks in excess of 10 in a million.

The full 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, all receptors on the project site (in all of the buildings) would be exposed to a cancer risk in excess of 10 in a million; as shown in Table 18. Receptor Pool_10 shows the impacts to an individual that would reside in the pool area for 30 years; however, as this is not a realistic scenario, as no one would be permanently living in the pool area, this data point has been included to show that activities within the pool area are accompanied by potential health risk. Table 18 also shows how the cancer risk would be reduced within homes on the project site with incorporation of MERV 13 filtration, as mitigation.

Mitigation requiring minimum efficiency reporting value (MERV) 13 filters would remove a substantial amount of particulates, including DPM. MERV 13 filters have a particle size removal efficiency rating of greater than at least 90 percent PM10 and a minimum of 85 removal efficiency for PM2.5. A MERV 13 filter creates more resistance to airflow because the filter media becomes denser as efficiency increases. The MERV filters do not remove gaseous pollutants; however. See Mitigation Measure 1 for details. With the incorporation of MERV 13 filtration in all of the dwelling units on-site (see MM-AQ1), the cancer risk would be reduced to less than 10 in a million at all residential receptor locations on-site (with doors and windows closed). Exterior cancer risk, including outside at the pool and clubhouse/gym area, would still exceed 10 in a million.

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 $\mu g/m^3$.

RELDPM = Reference Exposure Level (REL) for diesel particulate matter; the diesel particulate matter concentration at which no adverse health effects are anticipated.

The RELDPM is 5 µg/m3. The Office of Environmental Health Hazard Assessment as protective for the respiratory system has established this concentration. Using the maximum DPM concentration at the closest receptor for the opening year, the resulting Hazard Index is:

HIDPM = 0.04139 /5 = 0.0083

The criterion for significance is a Hazard Index increase of 1.0 or greater. Therefore, the proposed project would have a less than significant impact due to the non-cancer risk from diesel emissions from the diesel traffic along SR-60 and I-215. No mitigation is required.

Table 14
Carcinogenic Risks and Non-Carcinogenic Hazards
3rd Trimester Exposure Scenario (0.25 Years)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminan (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)	Index (j)
1	0.04139	4.1E-05	1.00E+00	DPM	1.1E+00	0.56	5.0E+00	1.4E-03	0.0083
2	0.03814	3.8E-05	1.00E+00	DPM	1.1E+00	0.52	5.0E+00	1.4E-03	0.0076
3	0.03217	3.2E-05	1.00E+00	DPM	1.1E+00	0.44	5.0E+00	1.4E-03	0.0064
4	0.03677	3.7E-05	1.00E+00	DPM	1.1E+00	0.50	5.0E+00	1.4E-03	0.0074
5	0.03483	3.5E-05	1.00E+00	DPM	1.1E+00	0.47	5.0E+00	1.4E-03	0.0070
6	0.03269	3.3E-05	1.00E+00	DPM	1.1E+00	0.44	5.0E+00	1.4E-03	0.0065
7	0.0313	3.1E-05	1.00E+00	DPM	1.1E+00	0.43	5.0E+00	1.4E-03	0.0063
8	0.02943	2.9E-05	1.00E+00	DPM	1.1E+00	0.40	5.0E+00	1.4E-03	0.0059
9	0.02791	2.8E-05	1.00E+00	DPM	1.1E+00	0.38	5.0E+00	1.4E-03	0.0056
Pool_10	*0.02375*	*2.4E-05*	*1.00E+00*	*DPM*	*1.1E+00*	*0.32*	*5.0E+00*	*1.4E-03*	*0.0048*
11	0.02241	2.2E-05	1.00E+00	DPM	1.1E+00	0.30	5.0E+00	1.4E-03	0.0045
12	0.02371	2.4E-05	1.00E+00	DPM	1.1E+00	0.32	5.0E+00	1.4E-03	0.0047
13	0.01961	2.0E-05	1.00E+00	DPM	1.1E+00	0.27	5.0E+00	1.4E-03	0.0039
14	0.01777	1.8E-05	1.00E+00	DPM	1.1E+00	0.24	5.0E+00	1.4E-03	0.0036

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

Table 15

Carcinogenic Risks and Non-Carcinogenic Hazards

Infant Exposure Scenario (0-2 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	0.04139	4.1E-05	1.00E+00	DPM	1.1E+00	**13.60**	5.0E+00	1.4E-03	0.0083
2	0.03814	3.8E-05	1.00E+00	DPM	1.1E+00	**12.53**	5.0E+00	1.4E-03	0.0076
3	0.03217	3.2E-05	1.00E+00	DPM	1.1E+00	**10.57**	5.0E+00	1.4E-03	0.0064
4	0.03677	3.7E-05	1.00E+00	DPM	1.1E+00	**12.08**	5.0E+00	1.4E-03	0.0074
5	0.03483	3.5E-05	1.00E+00	DPM	1.1E+00	**11.44**	5.0E+00	1.4E-03	0.0070
6	0.03269	3.3E-05	1.00E+00	DPM	1.1E+00	**10.74**	5.0E+00	1.4E-03	0.0065
7	0.0313	3.1E-05	1.00E+00	DPM	1.1E+00	**10.28**	5.0E+00	1.4E-03	0.0063
8	0.02943	2.9E-05	1.00E+00	DPM	1.1E+00	9.67	5.0E+00	1.4E-03	0.0059
9	0.02791	2.8E-05	1.00E+00	DPM	1.1E+00	9.17	5.0E+00	1.4E-03	0.0056
Pool_10	*0.02375*	*2.4E-05*	*1.00E+00*	*DPM*	*1.1E+00*	*7.80*	*5.0E+00*	*1.4E-03*	*0.0048*
11	0.02241	2.2E-05	1.00E+00	DPM	1.1E+00	7.36	5.0E+00	1.4E-03	0.0045
12	0.02371	2.4E-05	1.00E+00	DPM	1.1E+00	7.79	5.0E+00	1.4E-03	0.0047
13	0.01961	2.0E-05	1.00E+00	DPM	1.1E+00	6.44	5.0E+00	1.4E-03	0.0039
14	0.01777	1.8E-05	1.00E+00	DPM	1.1E+00	5.84	5.0E+00	1.4E-03	0.0036

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

Table 16
Carcinogenic Risks and Non-Carcinogenic Hazards
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)	Index (j)
1	0.04139	2.7E-03	1.00E+00	DPM	1.1E+00	**14.98**	5.0E+00	1.4E-03	0.0083
2	0.03814	2.7E-03	1.00E+00	DPM	1.1E+00	**13.81**	5.0E+00	1.4E-03	0.0076
3	0.03217	2.7E-03	1.00E+00	DPM	1.1E+00	**11.65**	5.0E+00	1.4E-03	0.0064
4	0.03677	2.7E-03	1.00E+00	DPM	1.1E+00	**13.31**	5.0E+00	1.4E-03	0.0074
5	0.03483	2.7E-03	1.00E+00	DPM	1.1E+00	**12.61**	5.0E+00	1.4E-03	0.0070
6	0.03269	2.7E-03	1.00E+00	DPM	1.1E+00	**11.83**	5.0E+00	1.4E-03	0.0065
7	0.0313	2.7E-03	1.00E+00	DPM	1.1E+00	**11.33**	5.0E+00	1.4E-03	0.0063
8	0.02943	2.7E-03	1.00E+00	DPM	1.1E+00	**10.65**	5.0E+00	1.4E-03	0.0059
9	0.02791	2.5E-03	1.00E+00	DPM	1.1E+00	**10.10**	5.0E+00	1.4E-03	0.0056
Pool_10	*0.02375*	*2.7E-03*	*1.00E+00*	*DPM*	*1.1E+00*	*8.60*	*5.0E+00*	*1.4E-03*	*0.0048*
11	0.02241	2.7E-03	1.00E+00	DPM	1.1E+00	8.11	5.0E+00	1.4E-03	0.0045
12	0.02371	2.7E-03	1.00E+00	DPM	1.1E+00	8.58	5.0E+00	1.4E-03	0.0047
13	0.01961	2.5E-03	1.00E+00	DPM	1.1E+00	7.10	5.0E+00	1.4E-03	0.0039
14	0.01777	1.8E-05	1.00E+00	DPM	1.1E+00	6.43	5.0E+00	1.4E-03	0.0036

Note: 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 17
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)	Index (j)
1	0.04139	4.1E-05	1.00E+00	DPM	1.1E+00	1.66	5.0E+00	1.4E-03	0.0083
2	0.03814	3.8E-05	1.00E+00	DPM	1.1E+00	1.53	5.0E+00	1.4E-03	0.0076
3	0.03217	3.2E-05	1.00E+00	DPM	1.1E+00	1.29	5.0E+00	1.4E-03	0.0064
4	0.03677	3.7E-05	1.00E+00	DPM	1.1E+00	1.48	5.0E+00	1.4E-03	0.0074
5	0.03483	3.5E-05	1.00E+00	DPM	1.1E+00	1.40	5.0E+00	1.4E-03	0.0070
6	0.03269	3.3E-05	1.00E+00	DPM	1.1E+00	1.31	5.0E+00	1.4E-03	0.0065
7	0.0313	3.1E-05	1.00E+00	DPM	1.1E+00	1.26	5.0E+00	1.4E-03	0.0063
8	0.02943	2.9E-05	1.00E+00	DPM	1.1E+00	1.18	5.0E+00	1.4E-03	0.0059
9	0.02791	2.8E-05	1.00E+00	DPM	1.1E+00	1.12	5.0E+00	1.4E-03	0.0056
Pool_10	*0.02375*	*2.4E-05*	*1.00E+00*	*DPM*	*1.1E+00*	*0.95*	*5.0E+00*	*1.4E-03*	*0.0048*
11	0.02241	2.2E-05	1.00E+00	DPM	1.1E+00	0.90	5.0E+00	1.4E-03	0.0045
12	0.02371	2.4E-05	1.00E+00	DPM	1.1E+00	0.95	5.0E+00	1.4E-03	0.0047
13	0.01961	2.0E-05	1.00E+00	DPM	1.1E+00	0.79	5.0E+00	1.4E-03	0.0039
14	0.01777	1.8E-05	1.00E+00	DPM	1.1E+00	0.71	5.0E+00	1.4E-03	0.0036

Note: 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

Table 18
Cumulative Carcinogenic Risk
30.25-Year Exposure Scenario

Receptor ID	Cumulative RISK (per million)
1	**30.81**
2	**28.39**
3	**23.94**
4	**27.37**
5	**25.92**
6	**24.33**
7	**23.30**
8	**21.90**
9	**20.77**
Pool_10[2]	*17.68*
11	**16.68**
12	**17.65**
13	**14.60**
14	**13.23**
Receptor ID	Cumulative RISK (per million) with incorporation of MERV 13 filtration mitigation[1]
1	4.62
2	4.26
3	3.59
4	4.11
5	3.89
6	3.65
7	3.49
8	3.29
9	3.12
Pool_10[2]	*17.68*
11	2.50
12	2.65
13	2.19
14	1.98

[1] 85% reduction in PM2.5

[2] Pool area cannot be mitigated via MERV filtration; however, sensitive receptors will not be residing at the pool area.

5 MEASURES TO REDUCE IMPACTS

5.1 CONSTRUCTION MEASURES

Adherence to SCAQMD Rule 403 is required.

No construction mitigation is required.

5.2 OPERATIONAL MEASURES

MM-AQ1: The project must include the incorporation of MERV 13 filtration on all residential HVAC systems within the project boundary.

6 ENERGY ANALYSIS

6.1 EXISTING CONDITIONS

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

6.1.1 Overview

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

- Approximately 287,220 gigawatt hours of electricity;[29]
- Approximately 2,056,267 million cubic feet of natural gas per year;[30] and
- Approximately 23.2 billion gallons of transportation fuel (for the year 2015).[31]

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.[32]

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 19.

[29]California Energy Commission. Energy Almanac. Total Electric Generation. [Online] 2022. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2022-total-system-electric-generation.
[30] 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.
[31] California Energy Commission. Revised Transportation Energy Demand Forecast 2018-2030. [Online] 2021. https://www.energy.ca.gov/data-reports/planning-and-forecasting
[32] U.S. Energy Information Administration. California Energy Consumption by End-Use Sector, 2021.California State Profile Overview.[Online] 2023 https://www.eia.gov/state/?sid=CA#tabs-2

Table 19
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)
Coal	257	0.12%	163	4,561	4,724	4,981
Natural Gas	94,192	43.68%	52	8,530	8,582	102,774
Oil	36	0.02%	-	-	-	36
Other (Waste Heat/Petroleum Coke)	206	0.10%	-	-	-	206
Unspecified Sources of Power	0	0.00%	100	10,273	10,373	10,373
Total Thermal and Unspecified	94,690	43.91%	316	23,363	23,679	118,370
Nuclear	17,714	8.22%	196	8361	8558	26,272
Large Hydro	27,066	12.55%	4,712	1,109	5,821	32,886
Biomass	5,037	2.34%	753	-	753	5,790
Geothermal	10,999	5.10%	221	2,347	2,569	13,567
Small Hydro	4,853	2.25%	133	2	135	4,988
Solar	41,344	19.17%	417	6,108	6,525	47,869
Wind	13,920	6.46%	9,177	8,302	17,479	31,399
Total Non-GHG and Renewables	120,932	56.09%	15,609	26,229	41,838	162,771
Total Energy	215,623	100%	15,925	49,593	65,518	281,140

Notes:

Source: California Energy Commission. 2023 Total System Electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electric total-system-electric-generation

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:

- California was the seventh-largest producer of crude oil among the 50 states in 2022, and, as of January 2022, it ranked third in 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 percent of California's in-state electricity generation. Natural gas fueled another 42 percent. Nuclear power supplied almost all the rest.
- In 2022, California was the fourth-largest electricity producer in the nation, but the state was also the nation's third-largest consumer of electricity, and additional needed electricity supplies came from out-of-state generators.[33]

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.

6.1.2 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.[34] 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.[35]

Table 20 identifies SCE's specific proportional shares of electricity sources in 2022. As shown in Table 20, 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.

[33] State Profile Overview. [Online] [Cited: April 20, 2023.] https://www.eia.gov/state/?sid=CA#tabs-2
[34] https://www.sce.com/about-us/who-we-are/leadership/our-service-territory
[35] California Energy Commission. Utility Energy Supply plans from 2015. https://www.energy.ca.gov/almanac/electricity_data/supply_forms.html

6.1.3 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.

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."[36]

[36] California Public Utilities Commission. Natural Gas and California. http://www.cpuc.ca.gov/natural_gas/

Table 20
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.

6.1.4 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).[37,38] 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.[39] 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.[40]

6.2 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.

6.2.1 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.[41]

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 CO_2 standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO_2 standards for model year 2020 are 43.7 mpg and 204 grams of CO_2 per mile for passenger cars and 31.3 mpg and 284 grams of

[37] CARB. California Greenhouse Gas Emissions Inventory – 2022 Edition. https://ww2.arb.ca.gov/ghg-inventory-data

[38] 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

[39] 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

[40] https://www.eia.gov/tools/faqs/faq.php?id=23&t=10

[41] https://www.nhtsa.gov/lawsregulations/corporate-average-fuel-economy.

CO_2 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.[42]

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. [43]

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.

[42] 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.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-final-rule.

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

6.2.2 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.

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.[44]

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.[45]

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 2 of this report.

[44] 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
[45] 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

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 2019 Title 24 standards, which became effective on January 1, 2020. The 2019 Title 24 standards include efficiency improvements to the lighting and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers. For example, 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. 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.

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.

The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards were estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation was factored in, 2019 residential standards were estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings were 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.

The current California Building Energy Efficiency Standards (Title 24 standards) are the 2022 Building Energy Efficiency Standards became which effective on January 1, 2023. [46] All buildings for which an application for a building permit is submitted on or after January 1, 2022 must follow the 2022 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:

[46] 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.

- 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.[47,48]

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 3 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.

[47] https://www.lightnowblog.com/2021/08/california-energy-commission-adopts-2022-building-energy-efficiency-standards/
[48] 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

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.[49]

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. [50]

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

[49] California Building Standards Commission (CBSC). 2022. California Green Building Standards. Website: https://codes.iccsafe.org/content/CAGBC2022P1.
[50] https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes

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 2 Air Quality Management 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 2 Air Quality Management 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 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 2 Air Quality Management 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 CO2 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 2 Air Quality Management 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 "backloaded", 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.

6.2.3 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.[51]

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 diesel particulate matter 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

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

The Regulation to Reduce Emissions of Diesel Particulate Matter, 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 diesel particulate matter, 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 2 Air Quality Management 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 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.

6.3 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

6.3.1 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.

6.3.2 Methodology

Information from the CalEEMod 2022.1.1.29 Output contained in Appendix B, utilized for air quality and greenhouse gas analyses in Sections 2 and 3 of this report, were also utilized for this analysis. The CalEEMod outputs detail project related construction equipment, transportation energy demands, and facility energy demands.

6.3.3 Construction Energy Demands

The construction of the project is anticipated to occur between October 2025 and June 2027 and be completed in one phase. Staging of construction vehicles and equipment will occur on-site. The approximately 20-month schedule is relatively short, and the project site is relatively small at approximately 9.32 gross acres.

Construction Equipment Electricity Usage Estimates

As stated previously, electrical service will be provided by SCE. 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)[52], 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 approximately 205,550 square feet of multi-family residential uses over the course of approximately 20 months. Based on Table 21, the total power cost of the on-site electricity usage during the construction of the proposed project is estimated to be approximately $9,743.07. As shown in Table 21, the total electricity usage from project construction related activities is estimated to be approximately 47,830 kWh.[53]

[52] Pray, Richard. 2021 National Construction Estimator. Carlsbad: Craftsman Book Company, 2021.
[53] Assumes the project will be under the Residential Rate - Schedule D under SCE. Rate is from the effective date as of October 1, 2024 from https://www.sce.com/regulatory/tariff-books/rates-pricing-choices

Table 21
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	205.550	20	$9,743.07

Cost per kWh	Total Project Construction Electricity Usage (kWh)
$0.20	47,830

*Assumes the project will be under the Residential Rate - Schedule D under SCE. Rate is from the effective date as of October 1, 2024 from https://www.sce.com/regulatory/tariff-books/rates-pricing-choices

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 20 months
- All construction equipment was assumed to run on diesel fuel
- Typical daily use of 8 hours, with some equipment operating from ~6 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 3 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 22 shows the results of the analysis of construction equipment.

As presented in Table 22, project construction activities would consume an estimated 48,888 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.[54] With respect to estimated VMT, the construction worker trips would generate an estimated 779,622 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.29 model defaults.

Vehicle fuel efficiencies for construction workers were estimated in the air quality and greenhouse gas analyses (Sections 2 and 3 of this report) using information generated using CARB's EMFAC 2021 model. An aggregate fuel efficiency of 26.59 miles per gallon (mpg) was used to calculate vehicle miles traveled for construction worker trips. Table 23 shows that an estimated 29,326 gallons of fuel would be consumed for construction worker trips.

[54] 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).

Table 22
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]
Demolition	15	Concrete/Industrial Saws	1	8	33	0.73	193	156
	15	Excavators	3	8	36	0.38	328	266
	15	Rubber Tired Dozers	2	8	367	0.4	2,349	1,904
Site Preparation	20	Rubber Tired Dozers	3	8	367	0.4	3,523	3,809
	20	Tractors/Loaders/Backhoes	4	8	84	0.37	995	1,075
Grading	41	Excavators	1	8	36	0.38	109	243
	41	Graders	1	8	148	0.41	485	1,076
	41	Rubber Tired Dozers	1	8	367	0.40	1,174	2,603
	41	Tractors/Loaders/Backhoes	3	8	84	0.37	746	1,653
Building Construction	369	Cranes	1	7	367	0.29	745	14,860
	369	Forklifts	3	8	82	0.20	394	7,851
	369	Generator Sets	1	8	14	0.74	83	1,653
	369	Tractors/Loaders/Backhoes	3	7	84	0.37	653	13,018
	369	Welders	1	8	46	0.45	166	3,303
Paving	10	Pavers	2	8	81	0.42	544	294
	10	Paving Equipment	2	8	89	0.36	513	277
	10	Rollers	2	8	36	0.38	219	118
Architectural Coating	150	Air Compressors	1	6	37	0.48	107	864
CONSTRUCTION FUEL DEMAND (gallons of diesel fuel)								**48,888**

(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 23

Construction Worker Fuel Consumption Estimates [1]

Phase	Number of Days	Worker One-Way Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)[2]	Estimated Fuel Consumption (gallons)
Demolition	15	15	18.5	4,163	26.59	157
Site Preparation	20	17.5	18.5	6,475	26.59	244
Grading	41	15	18.5	11,378	26.59	428
Building Construction	369	102.26	18.5	698,078	26.59	26,258
Paving	10	15	18.5	2,775	26.59	104
Architectural Coating	150	20.452	18.5	56,754	26.59	2,135
Total Construction Worker Fuel Consumption						**29,326**

(1) Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.29 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).

Construction Vendor/Hauling Fuel Estimates

Table 24 and Table 25 show the estimated fuel consumption for vendor and hauling during grading and building construction. With respect to estimated VMT, the vendor and hauling trips would generate an estimated 75,569 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.29 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 grading and building construction would use medium to heavy duty vehicles with an average fuel consumption of 7.14 mpg for medium trucks and 6.15 mpg for heavy duty trucks.[55] Tables 24 and 25 show that an estimated 10,960 gallons of fuel would be consumed for vendor trips and haul trips.

Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately 20-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 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 diesel particulate matter and other Toxic Air Contaminants. 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.

Therefore, as the project's construction is required to comply with CARB regulations and does not include the need of construction processes that would require the use of equipment that is more energy efficient, the proposed project annual construction related fuel consumption would not be considered significant.

[55] 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.

Table 24

Construction Vendor Fuel Consumption Estimates (MHD & HHDT Trucks)[1]

Phase	Number of Days	Vendor One-Way Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	15	0	10.2	0	7.14	0
Site Preparation	20	0	10.2	0	7.14	
Grading	41	0	10.2	0	7.14	0
Building Construction	369	15.71	10.2	59,129	7.14	8,287
Paving	10	0	10.2	0	7.14	0
Architectural Coating	150	0	10.2	0	7.14	0
Total Construction Vendor Fuel Consumption						**8,287**

(1) Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.29 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 25

Construction Hauling Fuel Consumption Estimates (HHD Trucks)[1]

Phase	Number of Days	One-Way Hauling Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	15	21.467	20	6,440	6.15	1,047
Site Preparation	20	0	20	0	6.15	0
Grading	41	12.195	20	10,000	6.15	1,626
Building Construction	369	0	20	0	6.15	0
Paving	10	0	20	0	6.15	0
Architectural Coating	150	0	20	0	6.15	0
Total Construction Hauling Fuel Consumption						**2,673**

(1) Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.29 defaults.

6.3.4 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

Operational related fuel consumption was calculated using the annual VMT from the CalEEMod output from the air quality and greenhouse gas analyses (Sections 2 and 3 of this report) and using information generated using CARB's 2021 EMFAC model (see Appendix B for details).[56]

Table 26 shows that an estimated 134,473 gallons of gasoline and 57,675 gallons of diesel 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 commercial 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 3.5 billion gallons of diesel and 13.6 billion gallons of gasoline in 2023.[57,58] 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 SCE) 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 3 of this report) and are provided in Table 27.

[56] Based on the California Air Resources Board on-road vehicle emissions model, EMFAC2021 (Modeling input: Riverside County; Fleet Aggregate; Annual; Year 2027 for proposed project). For Year 2027, gasoline-fueled vehicles account for approximately 88.77 percent of the total VMT at 26.24 miles per gallon and diesel-fueled vehicles account for approximately 11.23 percent of the total VMT at 7.74 miles per gallon.
[57] https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics
[58] 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

Table 26
Estimated Vehicle Operations Fuel Consumption

Land Use	Annual VMT[1]	Gasoline Usage[2]	Diesel Usage[2]
Apartments Low Rise	3,974,383	134,473	57,675
Parking Lot	0	0	0
Health Club	0	0	0
Total	3,974,383	134,473	57,675

Notes:

(1) Annual VMT obtained from CalEEMod output.

(2) Based on the California Air Resources Board on-road vehicle emissions model, EMFAC2021 (Modeling input: Riverside County; Fleet Aggregate; Annual; Year 2027 for proposed project). For Year 2027, gasoline-fueled vehicles account for approximately 88.77 percent of the total VMT at 26.24 miles per gallon and diesel-fueled vehicles account for approximately 11.23 percent of the total VMT at 7.74 miles per gallon.

Table 27

Project Annual Operational Energy Demand Summary[1]

Natural Gas Demand	kBTU/year
Apartments Low Rise	2358861
Parking Lot	0
Health Club	222,912
Total	2,581,773

Electricity Demand	kWh/year
Apartments Low Rise	0
Parking Lot	0
Health Club	0
Total	0

(1) Inlcudes reductions from solar providing for all energy on-site. Taken from the CalEEMod 2022.1.1.29 annual output mitigated emissions (Appendix B of this report).

As shown in Table 27, the estimated electricity demand for the proposed project is approximately 0 kWh per year (as the site will employ the design feature of installing solar panels to achieve net zero). In 2022, the non-residential sector of the County of Riverside consumed approximately 8,720 million kWh of electricity.[59] In addition, the estimated natural gas consumption for the proposed project is approximately 8,392,442 kBTU per year. In 2022, the non-residential sector of the County of Riverside consumed approximately 147 million therms of gas.[60] 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 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.

6.4 RENEWABLE ENERGY AND 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 PG&E.

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.

[59] California Energy Commission, Electricity Consumption by County. https://ecdms.energy.ca.gov/elecbycounty.aspx
[60] California Energy Commission, Gas Consumption by County. http://ecdms.energy.ca.gov/gasbycounty.aspx

The County of Riverside's CAP Update includes GHG reduction measures that focus on different sectors including transportation, energy efficiency, clean energy, water efficiency, advanced measures, and solid waste. The County's CAP states that project's that do not exceed the CAP's screening threshold of 3,000 MTCO2e per year are considered to have less than significant GHG emissions and are in compliance with the County's CAP Update. As shown in Section 3 above, the proposed project would be consistent with the applicable goals of the Riverside County CAP.

6.5 CONCLUSIONS

As supported by the preceding analyses, project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the energy demands of the project can 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 residential uses and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

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APPENDICES

Appendix A Glossary of Terms
Appendix B CalEEMod Model Daily Emissions Printouts and EMFAC Data
Appendix C HRA Calculations and AERMOD Printouts

APPENDIX A

GLOSSARY OF TERMS

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
CH4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO2	Carbon dioxide
CO2e	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
MTCO2e	Metric tons of carbon dioxide equivalent
MMTCO2e	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO2	Nitrogen dioxide
N2O	Nitrous oxide
O3	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
ROG	Reactive Organic Gas (see VOC)
SCAQMD	South Coast Air Quality Management District
SF6	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

Moreno Valley Farm Residential Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Moreno Valley Farm Residential
Construction Start Date	10/9/2025
Operational Year	2027
Lead Agency	City of Moreno Valley
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	10.0
Location	Canyon Springs Pkwy, Moreno Valley, CA, USA
County	Riverside-South Coast
City	Riverside
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5531
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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
Apartments Low Rise	139	Dwelling Unit	8.68	200,360	143,555	—	449	—

Parking Lot	69.0	Space	0.52	0.00	0.00	—	—	—
Health Club	5.19	1000sqft	0.12	5,190	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.4	18.9	34.1	0.04	0.73	1.93	2.66	0.67	0.46	1.13	—	6,413	6,413	0.25	0.17	7.73	6,479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.4	31.7	31.2	0.05	1.37	7.89	9.26	1.26	3.99	5.25	—	5,522	5,522	0.23	0.27	0.18	5,543
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.60	8.45	14.5	0.02	0.30	1.20	1.50	0.28	0.33	0.59	—	3,137	3,137	0.10	0.11	1.93	3,173
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.66	1.54	2.64	< 0.005	0.06	0.22	0.27	0.05	0.06	0.11	—	519	519	0.02	0.02	0.32	525

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	11.4	18.9	34.1	0.04	0.73	1.93	2.66	0.67	0.46	1.13	—	6,413	6,413	0.25	0.17	7.73	6,479
2027	1.45	10.2	19.9	0.03	0.34	1.47	1.81	0.32	0.35	0.67	—	4,245	4,245	0.12	0.14	5.48	4,295
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.38	31.7	31.2	0.05	1.37	7.89	9.26	1.26	3.99	5.25	—	5,522	5,522	0.23	0.27	0.10	5,543
2026	10.4	16.0	20.9	0.03	0.66	3.18	3.84	0.61	1.44	2.05	—	4,560	4,560	0.14	0.16	0.18	4,610
2027	10.3	11.2	20.4	0.03	0.36	1.74	2.10	0.33	0.41	0.75	—	4,523	4,523	0.13	0.15	0.16	4,571
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.41	3.91	3.89	0.01	0.16	0.72	0.89	0.15	0.33	0.48	—	786	786	0.03	0.03	0.17	795
2026	3.60	8.45	14.5	0.02	0.30	1.20	1.50	0.28	0.31	0.59	—	3,137	3,137	0.10	0.11	1.93	3,173
2027	1.65	3.64	6.58	0.01	0.12	0.53	0.65	0.11	0.13	0.24	—	1,465	1,465	0.04	0.05	0.85	1,481
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.08	0.71	0.71	< 0.005	0.03	0.13	0.16	0.03	0.06	0.09	—	130	130	< 0.005	< 0.005	0.03	132
2026	0.66	1.54	2.64	< 0.005	0.06	0.22	0.27	0.05	0.06	0.11	—	519	519	0.02	0.02	0.32	525
2027	0.30	0.66	1.20	< 0.005	0.02	0.10	0.12	0.02	0.02	0.04	—	242	242	0.01	0.01	0.14	245

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	11.4	18.9	34.1	0.04	0.73	1.93	2.66	0.67	0.46	1.13	—	6,413	6,413	0.25	0.17	7.73	6,479
2027	1.45	10.2	19.9	0.03	0.34	1.47	1.81	0.32	0.35	0.67	—	4,245	4,245	0.12	0.14	5.48	4,295

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.38	31.7	31.2	0.05	1.37	7.89	9.26	1.26	3.99	5.25	—	5,522	5,522	0.23	0.27	0.10	5,543
2026	10.4	16.0	20.9	0.03	0.66	3.18	3.84	0.61	1.44	2.05	—	4,560	4,560	0.14	0.16	0.18	4,610
2027	10.3	11.2	20.4	0.03	0.36	1.74	2.10	0.33	0.41	0.75	—	4,523	4,523	0.13	0.15	0.16	4,571
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.41	3.91	3.89	0.01	0.16	0.72	0.89	0.15	0.33	0.48	—	786	786	0.03	0.03	0.17	795
2026	3.60	8.45	14.5	0.02	0.30	1.20	1.50	0.28	0.31	0.59	—	3,137	3,137	0.10	0.11	1.93	3,173
2027	1.65	3.64	6.58	0.01	0.12	0.53	0.65	0.11	0.13	0.24	—	1,465	1,465	0.04	0.05	0.85	1,481
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.08	0.71	0.71	< 0.005	0.03	0.13	0.16	0.03	0.06	0.09	—	130	130	< 0.005	< 0.005	0.03	132
2026	0.66	1.54	2.64	< 0.005	0.06	0.22	0.27	0.05	0.06	0.11	—	519	519	0.02	0.02	0.32	525
2027	0.30	0.66	1.20	< 0.005	0.02	0.10	0.12	0.02	0.02	0.04	—	242	242	0.01	0.01	0.14	245

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.34	4.59	45.2	0.10	0.13	8.64	8.77	0.12	2.19	2.31	82.8	11,792	11,875	8.83	0.46	32.9	12,266
Mit.	9.34	4.59	45.2	0.10	0.13	8.64	8.77	0.12	2.19	2.31	82.8	10,823	10,906	8.74	0.45	32.9	11,292
% Reduced	—	—	—	—	—	—	—	—	—	—	—	8%	8%	1%	2%	—	8%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.38	4.79	30.9	0.10	0.12	8.64	8.76	0.12	2.19	2.31	82.8	11,167	11,250	8.84	0.48	2.28	11,615
Mit.	8.38	4.79	30.9	0.10	0.12	8.64	8.76	0.12	2.19	2.31	82.8	10,198	10,281	8.75	0.46	2.28	10,640

% Reduced	—	—	—	—	—	—	—	—	—	—	—	9%	9%	1%	2%	—	8%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.47	4.47	34.2	0.09	0.12	7.66	7.78	0.11	1.94	2.06	82.8	10,258	10,341	8.80	0.43	13.6	10,704
Mit.	8.47	4.47	34.2	0.09	0.12	7.66	7.78	0.11	1.94	2.06	82.8	9,290	9,373	8.71	0.42	13.6	9,729
% Reduced	—	—	—	—	—	—	—	—	—	—	—	9%	9%	1%	3%	—	9%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.55	0.82	6.23	0.02	0.02	1.40	1.42	0.02	0.35	0.38	13.7	1,698	1,712	1.46	0.07	2.25	1,772
Mit.	1.55	0.82	6.23	0.02	0.02	1.40	1.42	0.02	0.35	0.38	13.7	1,538	1,552	1.44	0.07	2.25	1,611
% Reduced	—	—	—	—	—	—	—	—	—	—	—	9%	9%	1%	3%	—	9%

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.81	3.85	36.7	0.10	0.07	8.64	8.71	0.06	2.19	2.26	—	9,921	9,921	0.35	0.42	31.5	10,087
Area	5.49	0.08	8.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	22.0	22.0	< 0.005	< 0.005	—	22.1
Energy	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,796	1,796	0.17	0.01	—	1,804
Water	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Waste	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Total	9.34	4.59	45.2	0.10	0.13	8.64	8.77	0.12	2.19	2.31	82.8	11,792	11,875	8.83	0.46	32.9	12,266
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	3.58	4.13	30.6	0.09	0.07	8.64	8.71	0.06	2.19	2.26	—	9,318	9,318	0.37	0.43	0.82	9,458
Area	4.76	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
Energy	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,796	1,796	0.17	0.01	—	1,804
Water	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Waste	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46	
Total	8.38	4.79	30.9	0.10	0.12	8.64	8.76	0.12	2.19	2.31	82.8	11,167	11,250	8.84	0.48	2.28	11,615
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.17	3.76	28.3	0.08	0.06	7.66	7.72	0.06	1.94	2.00	—	8,395	8,395	0.33	0.39	12.1	8,532
Area	5.26	0.05	5.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	15.1	15.1	< 0.005	< 0.005	—	15.1
Energy	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,796	1,796	0.17	0.01	—	1,804
Water	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Waste	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46	
Total	8.47	4.47	34.2	0.09	0.12	7.66	7.78	0.11	1.94	2.06	82.8	10,258	10,341	8.80	0.43	13.6	10,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.58	0.69	5.16	0.01	0.01	1.40	1.41	0.01	0.35	0.37	—	1,390	1,390	0.05	0.06	2.01	1,413
Area	0.96	0.01	1.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	2.50	2.50	< 0.005	< 0.005	—	2.50
Energy	0.01	0.12	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	297	297	0.03	< 0.005	—	299
Water	—	—	—	—	—	—	—	—	—	—	1.89	8.69	10.6	0.19	< 0.005	—	16.9
Waste	—	—	—	—	—	—	—	—	—	—	11.8	0.00	11.8	1.18	0.00	—	41.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24	
Total	1.55	0.82	6.23	0.02	0.02	1.40	1.42	0.02	0.35	0.38	13.7	1,698	1,712	1.46	0.07	2.25	1,772

2.6. Operations Emissions by Sector, Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.81	3.85	36.7	0.10	0.07	8.64	8.71	0.06	2.19	2.26	—	9,921	9,921	0.35	0.42	31.5	10,087
Area	5.49	0.08	8.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	22.0	22.0	< 0.005	< 0.005	—	22.1
Energy	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	827	827	0.07	< 0.005	—	830
Water	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Waste	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Total	9.34	4.59	45.2	0.10	0.13	8.64	8.77	0.12	2.19	2.31	82.8	10,823	10,906	8.74	0.45	32.9	11,292
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.58	4.13	30.6	0.09	0.07	8.64	8.71	0.06	2.19	2.26	—	9,318	9,318	0.37	0.43	0.82	9,458
Area	4.76	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
Energy	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	827	827	0.07	< 0.005	—	830
Water	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Waste	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Total	8.38	4.79	30.9	0.10	0.12	8.64	8.76	0.12	2.19	2.31	82.8	10,198	10,281	8.75	0.46	2.28	10,640
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.17	3.76	28.3	0.08	0.06	7.66	7.72	0.06	1.94	2.00	—	8,395	8,395	0.33	0.39	12.1	8,532
Area	5.26	0.05	5.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	15.1	15.1	< 0.005	< 0.005	—	15.1
Energy	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	827	827	0.07	< 0.005	—	830
Water	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Waste	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Total	8.47	4.47	34.2	0.09	0.12	7.66	7.78	0.11	1.94	2.06	82.8	9,290	9,373	8.71	0.42	13.6	9,729
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.58	0.69	5.16	0.01	0.01	1.40	1.41	0.01	0.35	0.37	—	1,390	1,390	0.05	0.06	2.01	1,413
Area	0.96	0.01	1.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	2.50	2.50	< 0.005	< 0.005	—	2.50
Energy	0.01	0.12	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	137	137	0.01	< 0.005	—	137
Water	—	—	—	—	—	—	—	—	—	—	1.89	8.69	10.6	0.19	< 0.005	—	16.9
Waste	—	—	—	—	—	—	—	—	—	—	11.8	0.00	11.8	1.18	0.00	—	41.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	1.55	0.82	6.23	0.02	0.02	1.40	1.42	0.02	0.35	0.38	13.7	1,538	1,552	1.44	0.07	2.25	1,611

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	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	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	1.18	1.18	—	0.18	0.18	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.91	0.82	< 0.005	0.04	—	0.04	0.03	—	0.03	—	141	141	0.01	< 0.005	—	141
Demolition	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
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
Hauling	0.02	1.71	0.41	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,480	1,480	0.03	0.23	0.08	1,550
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.09	8.09	< 0.005	< 0.005	0.01	8.20
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
Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.8	60.8	< 0.005	0.01	0.06	63.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.34	1.34	< 0.005	< 0.005	< 0.005	1.36
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.6

3.2. Demolition (2025) - Mitigated

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

Location	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	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	1.18	1.18	—	0.18	0.18	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.91	0.82	< 0.005	0.04	—	0.04	0.03	—	0.03	—	141	141	0.01	< 0.005	—	141
Demolition	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
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
Hauling	0.02	1.71	0.41	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,480	1,480	0.03	0.23	0.08	1,550
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.09	8.09	< 0.005	< 0.005	0.01	8.20
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
Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.8	60.8	< 0.005	0.01	0.06	63.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.34	1.34	< 0.005	< 0.005	< 0.005	1.36
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.6

3.3. Site Preparation (2025) - Unmitigated

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

Location	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	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—

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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.73	1.65	< 0.005	0.07	—	0.07	0.07	—	0.07	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.32	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	1.02	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	227	227	0.01	0.01	0.02	230
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.6	12.6	< 0.005	< 0.005	0.02	12.8
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

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.08	2.08	< 0.005	< 0.005	< 0.005	2.11
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
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

3.4. Site Preparation (2025) - Mitigated

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

Location	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	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.73	1.65	< 0.005	0.07	—	0.07	0.07	—	0.07	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.32	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	1.02	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	227	227	0.01	0.01	0.02	230
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.6	12.6	< 0.005	< 0.005	0.02	12.8
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.08	2.08	< 0.005	< 0.005	< 0.005	2.11
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
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

3.5. Grading (2025) - Unmitigated

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

Location	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	1.74	16.3	17.9	0.03	0.72	—	0.72	0.66	—	0.66	—	2,959	2,959	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.11	1.23	< 0.005	0.05	—	0.05	0.05	—	0.05	—	203	203	0.01	< 0.005	—	203
Dust From Material Movement	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.6	33.6	< 0.005	< 0.005	—	33.7
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
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
Hauling	0.01	0.97	0.23	0.01	0.02	0.22	0.24	0.02	0.06	0.08	—	841	841	0.02	0.13	0.05	881
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
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
Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.6	57.6	< 0.005	0.01	0.05	60.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.23	2.23	< 0.005	< 0.005	< 0.005	2.26
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.53	9.53	< 0.005	< 0.005	0.01	9.99

3.6. Grading (2025) - Mitigated

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

Location	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	1.74	16.3	17.9	0.03	0.72	—	0.72	0.66	—	0.66	—	2,959	2,959	0.12	0.02	—	2,970

Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.11	1.23	< 0.005	0.05	—	0.05	0.05	—	0.05	—	203	203	0.01	< 0.005	—	203
Dust From Material Movement	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.6	33.6	< 0.005	< 0.005	—	33.7
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
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
Hauling	0.01	0.97	0.23	0.01	0.02	0.22	0.24	0.02	0.06	0.08	—	841	841	0.02	0.13	0.05	881

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
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
Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.6	57.6	< 0.005	0.01	0.05	60.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.23	2.23	< 0.005	< 0.005	< 0.005	2.26
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.53	9.53	< 0.005	< 0.005	0.01	9.99

3.7. Grading (2026) - Unmitigated

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

Location	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	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.64	0.75	< 0.005	0.03	—	0.03	0.03	—	0.03	—	127	127	0.01	< 0.005	—	128

Dust From Material Movement	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	0.14	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.1	21.1	< 0.005	< 0.005	—	21.2
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Hauling	0.01	0.95	0.23	0.01	0.02	0.22	0.24	0.02	0.06	0.08	—	826	826	0.02	0.13	0.04	866
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.29	8.29	< 0.005	< 0.005	0.01	8.41
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
Hauling	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.6	35.6	< 0.005	0.01	0.03	37.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.37	1.37	< 0.005	< 0.005	< 0.005	1.39
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.89	5.89	< 0.005	< 0.005	0.01	6.18

3.8. Grading (2026) - Mitigated

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

Location	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	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.64	0.75	< 0.005	0.03	—	0.03	0.03	—	0.03	—	127	127	0.01	< 0.005	—	128
Dust From Material Movement	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	0.14	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.1	21.1	< 0.005	< 0.005	—	21.2
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—

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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Hauling	0.01	0.95	0.23	0.01	0.02	0.22	0.24	0.02	0.06	0.08	—	826	826	0.02	0.13	0.04	866
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.29	8.29	< 0.005	< 0.005	0.01	8.41
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
Hauling	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.6	35.6	< 0.005	0.01	0.03	37.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.37	1.37	< 0.005	< 0.005	< 0.005	1.39
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.89	5.89	< 0.005	< 0.005	0.01	6.18

3.9. 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	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	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405

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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.61	8.70	0.02	0.25	—	0.25	0.23	—	0.23	—	1,609	1,609	0.07	0.01	—	1,615
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.21	1.59	< 0.005	0.05	—	0.05	0.04	—	0.04	—	266	266	0.01	< 0.005	—	267
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.40	7.34	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,410	1,410	0.06	0.05	4.78	1,431
Vendor	0.01	0.50	0.16	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	473	473	0.01	0.07	1.29	496
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.45	5.57	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,297	1,297	0.02	0.05	0.12	1,313
Vendor	0.01	0.53	0.16	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	473	473	0.01	0.07	0.03	495
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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.33	3.91	0.00	0.00	0.89	0.89	0.00	0.21	0.21	—	881	881	0.01	0.03	1.39	893
Vendor	0.01	0.36	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	318	318	0.01	0.05	0.37	333
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.71	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	146	146	< 0.005	0.01	0.23	148
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	52.6	52.6	< 0.005	0.01	0.06	55.1
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

3.10. Building Construction (2026) - Mitigated

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

Location	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	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.61	8.70	0.02	0.25	—	0.25	0.23	—	0.23	—	1,609	1,609	0.07	0.01	—	1,615

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.21	1.59	< 0.005	0.05	—	0.05	0.04	—	0.04	—	266	266	0.01	< 0.005	—	267
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.40	7.34	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,410	1,410	0.06	0.05	4.78	1,431
Vendor	0.01	0.50	0.16	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	473	473	0.01	0.07	1.29	496
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.45	5.57	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,297	1,297	0.02	0.05	0.12	1,313
Vendor	0.01	0.53	0.16	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	473	473	0.01	0.07	0.03	495
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.33	3.91	0.00	0.00	0.89	0.89	0.00	0.21	0.21	—	881	881	0.01	0.03	1.39	893
Vendor	0.01	0.36	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	318	318	0.01	0.05	0.37	333
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.71	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	146	146	< 0.005	0.01	0.23	148
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	52.6	52.6	< 0.005	0.01	0.06	55.1
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

3.11. Building Construction (2027) - Unmitigated

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

Location	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	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	3.20	4.41	0.01	0.11	—	0.11	0.11	—	0.11	—	816	816	0.03	0.01	—	819
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.58	0.80	< 0.005	0.02	—	0.02	0.02	—	0.02	—	135	135	0.01	< 0.005	—	136
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.36	6.79	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,384	1,384	0.02	0.05	4.30	1,403
Vendor	0.01	0.49	0.15	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	464	464	0.01	0.07	1.18	486

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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.40	5.13	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,273	1,273	0.02	0.05	0.11	1,288
Vendor	0.01	0.51	0.16	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	465	465	0.01	0.07	0.03	486
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.15	1.84	0.00	0.00	0.45	0.45	0.00	0.11	0.11	—	439	439	0.01	0.02	0.63	445
Vendor	< 0.005	0.17	0.05	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	158	158	< 0.005	0.02	0.17	165
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.33	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	72.7	72.7	< 0.005	< 0.005	0.10	73.6
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	26.2	26.2	< 0.005	< 0.005	0.03	27.4
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

3.12. Building Construction (2027) - Mitigated

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

Location	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	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	3.20	4.41	0.01	0.11	—	0.11	0.11	—	0.11	—	816	816	0.03	0.01	—	819
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.58	0.80	< 0.005	0.02	—	0.02	0.02	—	0.02	—	135	135	0.01	< 0.005	—	136
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.36	6.79	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,384	1,384	0.02	0.05	4.30	1,403
Vendor	0.01	0.49	0.15	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	464	464	0.01	0.07	1.18	486
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.40	5.13	0.00	0.00	1.34	1.34	0.00	0.31	0.31	—	1,273	1,273	0.02	0.05	0.11	1,288
Vendor	0.01	0.51	0.16	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	465	465	0.01	0.07	0.03	486
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.15	1.84	0.00	0.00	0.45	0.45	0.00	0.11	0.11	—	439	439	0.01	0.02	0.63	445
Vendor	< 0.005	0.17	0.05	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	158	158	< 0.005	0.02	0.17	165
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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.33	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	72.7	72.7	< 0.005	< 0.005	0.10	73.6
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	26.2	26.2	< 0.005	< 0.005	0.03	27.4
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

3.13. Paving (2026) - Unmitigated

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

Location	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	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	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.4	41.4	< 0.005	< 0.005	—	41.5
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.85	6.85	< 0.005	< 0.005	—	6.88
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.70	210
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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.28	5.28	< 0.005	< 0.005	0.01	5.35
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.89
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
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

3.14. Paving (2026) - Mitigated

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

Location	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	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	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.4	41.4	< 0.005	< 0.005	—	41.5
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.85	6.85	< 0.005	< 0.005	—	6.88
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.70	210
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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.28	5.28	< 0.005	< 0.005	0.01	5.35
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

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.89
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
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

3.15. 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	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	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	8.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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	8.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.24	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.4	37.4	< 0.005	< 0.005	—	37.5
Architectural Coatings	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.19	6.19	< 0.005	< 0.005	—	6.21
Architectural Coatings	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	1.47	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	282	282	0.01	0.01	0.96	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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.09	1.11	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	259	259	< 0.005	0.01	0.02	263
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.33	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	73.5	73.5	< 0.005	< 0.005	0.12	74.5
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
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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.2	12.2	< 0.005	< 0.005	0.02	12.3
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
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

3.16. Architectural Coating (2026) - Mitigated

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

Location	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	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	8.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	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	8.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.4	37.4	< 0.005	< 0.005	—	37.5

Architect Coatings	2.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.19	6.19	< 0.005	< 0.005	—	6.21
Architectural Coatings	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	1.47	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	282	282	0.01	0.01	0.96	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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.09	1.11	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	259	259	< 0.005	0.01	0.02	263
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.33	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	73.5	73.5	< 0.005	< 0.005	0.12	74.5
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.2	12.2	< 0.005	< 0.005	0.02	12.3

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
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

3.17. Architectural Coating (2027) - Unmitigated

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

Location	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	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	8.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.5	17.5	< 0.005	< 0.005	—	17.6
Architectural Coatings	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.90	2.90	< 0.005	< 0.005	—	2.91

Architectural Coatings	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.03	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	255	255	< 0.005	0.01	0.02	258
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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	33.8	33.8	< 0.005	< 0.005	0.05	34.2
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.60	5.60	< 0.005	< 0.005	0.01	5.67
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
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

3.18. Architectural Coating (2027) - Mitigated

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

Location	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	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	8.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.11	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.5	17.5	< 0.005	< 0.005	—	17.6
Architectural Coatings	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.90	2.90	< 0.005	< 0.005	—	2.91
Architectural Coatings	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.03	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	255	255	< 0.005	0.01	0.02	258

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
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	33.8	33.8	< 0.005	< 0.005	0.05	34.2
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.60	5.60	< 0.005	< 0.005	0.01	5.67
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
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

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	3.81	3.85	36.7	0.10	0.07	8.64	8.71	0.06	2.19	2.26	—	9,921	9,921	0.35	0.42	31.5	10,087
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
Health Club	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	3.81	3.85	36.7	0.10	0.07	8.64	8.71	0.06	2.19	2.26	—	9,921	9,921	0.35	0.42	31.5	10,087

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	3.58	4.13	30.6	0.09	0.07	8.64	8.71	0.06	2.19	2.26	—	9,318	9,318	0.37	0.43	0.82	9,458
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
Health Club	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	3.58	4.13	30.6	0.09	0.07	8.64	8.71	0.06	2.19	2.26	—	9,318	9,318	0.37	0.43	0.82	9,458
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.58	0.69	5.16	0.01	0.01	1.40	1.41	0.01	0.35	0.37	—	1,390	1,390	0.05	0.06	2.01	1,413
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
Health Club	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	0.58	0.69	5.16	0.01	0.01	1.40	1.41	0.01	0.35	0.37	—	1,390	1,390	0.05	0.06	2.01	1,413

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	3.81	3.85	36.7	0.10	0.07	8.64	8.71	0.06	2.19	2.26	—	9,921	9,921	0.35	0.42	31.5	10,087
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

Health Club	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	3.81	3.85	36.7	0.10	0.07	8.64	8.71	0.06	2.19	2.26	—	9,921	9,921	0.35	0.42	31.5	10,087
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	3.58	4.13	30.6	0.09	0.07	8.64	8.71	0.06	2.19	2.26	—	9,318	9,318	0.37	0.43	0.82	9,458
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
Health Club	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	3.58	4.13	30.6	0.09	0.07	8.64	8.71	0.06	2.19	2.26	—	9,318	9,318	0.37	0.43	0.82	9,458
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.58	0.69	5.16	0.01	0.01	1.40	1.41	0.01	0.35	0.37	—	1,390	1,390	0.05	0.06	2.01	1,413
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
Health Club	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	0.58	0.69	5.16	0.01	0.01	1.40	1.41	0.01	0.35	0.37	—	1,390	1,390	0.05	0.06	2.01	1,413

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

Apartments	—	—	—	—	—	—	—	—	—	—	—	903	903	0.09	0.01	—	908
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Health Club	—	—	—	—	—	—	—	—	—	—	—	47.1	47.1	< 0.005	< 0.005	—	47.4
Total	—	—	—	—	—	—	—	—	—	—	—	969	969	0.09	0.01	—	974
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	903	903	0.09	0.01	—	908
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Health Club	—	—	—	—	—	—	—	—	—	—	—	47.1	47.1	< 0.005	< 0.005	—	47.4
Total	—	—	—	—	—	—	—	—	—	—	—	969	969	0.09	0.01	—	974
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	149	149	0.01	< 0.005	—	150
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	3.12	3.12	< 0.005	< 0.005	—	3.13
Health Club	—	—	—	—	—	—	—	—	—	—	—	7.80	7.80	< 0.005	< 0.005	—	7.84
Total	—	—	—	—	—	—	—	—	—	—	—	160	160	0.02	< 0.005	—	161

4.2.2. Electricity Emissions By Land Use - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	756	756	0.07	< 0.005	—	758
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
Health Club	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.4	71.4	0.01	< 0.005	—	71.6
Total	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	827	827	0.07	< 0.005	—	830
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	756	756	0.07	< 0.005	—	758
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
Health Club	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.4	71.4	0.01	< 0.005	—	71.6
Total	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	827	827	0.07	< 0.005	—	830
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	126
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
Health Club	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.8	11.8	< 0.005	< 0.005	—	11.9
Total	0.01	0.12	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	137	137	0.01	< 0.005	—	137

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	756	756	0.07	< 0.005	—	758
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
Health Club	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.4	71.4	0.01	< 0.005	—	71.6
Total	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	827	827	0.07	< 0.005	—	830
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	756	756	0.07	< 0.005	—	758
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
Health Club	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	71.4	71.4	0.01	< 0.005	—	71.6
Total	0.04	0.66	0.30	< 0.005	0.05	—	0.05	0.05	—	0.05	—	827	827	0.07	< 0.005	—	830
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	126
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
Health Club	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.8	11.8	< 0.005	< 0.005	—	11.9

Total	0.01	0.12	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	137	137	0.01	< 0.005	—	137

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	4.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.73	0.08	8.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.0	22.0	< 0.005	< 0.005	—	22.1
Total	5.49	0.08	8.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	22.0	22.0	< 0.005	< 0.005	—	22.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	4.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.76	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Hearths	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
Consumer Products	0.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.09	0.01	1.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.50
Total	0.96	0.01	1.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	2.50	2.50	< 0.005	< 0.005	—	2.50

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	4.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.73	0.08	8.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.0	22.0	< 0.005	< 0.005	—	22.1
Total	5.49	0.08	8.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	22.0	22.0	< 0.005	< 0.005	—	22.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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

Consum Products	4.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.76	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	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
Consumer Products	0.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.09	0.01	1.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.50
Total	0.96	0.01	1.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	2.50	2.50	< 0.005	< 0.005	—	2.50

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	10.8	50.5	61.3	1.12	0.03	—	97.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Health Club	—	—	—	—	—	—	—	—	—	—	0.59	1.98	2.57	0.06	< 0.005	—	4.52
Total	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	10.8	50.5	61.3	1.12	0.03	—	97.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	0.59	1.98	2.57	0.06	< 0.005	—	4.52
Total	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	1.79	8.36	10.2	0.18	< 0.005	—	16.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	0.10	0.33	0.43	0.01	< 0.005	—	0.75
Total	—	—	—	—	—	—	—	—	—	—	1.89	8.69	10.6	0.19	< 0.005	—	16.9

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	10.8	50.5	61.3	1.12	0.03	—	97.3

Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	0.59	1.98	2.57	0.06	< 0.005	—	4.52
Total	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	10.8	50.5	61.3	1.12	0.03	—	97.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	0.59	1.98	2.57	0.06	< 0.005	—	4.52
Total	—	—	—	—	—	—	—	—	—	—	11.4	52.5	63.9	1.18	0.03	—	102
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	1.79	8.36	10.2	0.18	< 0.005	—	16.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	0.10	0.33	0.43	0.01	< 0.005	—	0.75
Total	—	—	—	—	—	—	—	—	—	—	1.89	8.69	10.6	0.19	< 0.005	—	16.9

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	55.4	0.00	55.4	5.54	0.00	—	194
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	15.9	0.00	15.9	1.59	0.00	—	55.8
Total	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	55.4	0.00	55.4	5.54	0.00	—	194
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	15.9	0.00	15.9	1.59	0.00	—	55.8
Total	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	9.17	0.00	9.17	0.92	0.00	—	32.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	2.64	0.00	2.64	0.26	0.00	—	9.24
Total	—	—	—	—	—	—	—	—	—	—	11.8	0.00	11.8	1.18	0.00	—	41.3

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	55.4	0.00	55.4	5.54	0.00	—	194
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	15.9	0.00	15.9	1.59	0.00	—	55.8
Total	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	55.4	0.00	55.4	5.54	0.00	—	194
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	15.9	0.00	15.9	1.59	0.00	—	55.8
Total	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	250
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	9.17	0.00	9.17	0.92	0.00	—	32.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Health Club	—	—	—	—	—	—	—	—	—	—	2.64	0.00	2.64	0.26	0.00	—	9.24
Total	—	—	—	—	—	—	—	—	—	—	11.8	0.00	11.8	1.18	0.00	—	41.3

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24

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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

Equipment Type	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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

Equipment Type	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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

Equipment Type	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	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	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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	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
Demolition	Demolition	10/9/2025	10/29/2025	5.00	15.0	—
Site Preparation	Site Preparation	10/30/2025	11/26/2025	5.00	20.0	—
Grading	Grading	11/27/2025	1/22/2026	5.00	41.0	—
Building Construction	Building Construction	1/23/2026	6/23/2027	5.00	369	—
Paving	Paving	7/30/2026	8/12/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	8/11/2026	3/8/2027	5.00	150	—

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

Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
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

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Back	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
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
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	21.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	12.2	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	102	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	15.7	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	20.5	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

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT

Demolition	Hauling	21.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	12.2	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	102	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	15.7	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	20.5	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	405,729	135,243	7,785	2,595	1,359

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,285	—
Site Preparation	—	—	30.0	0.00	—
Grading	4,000	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.52

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Low Rise	—	0%
Parking Lot	0.52	100%
Health Club	0.00	0%

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	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005
2027	0.00	346	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
Apartments Low Rise	937	632	537	305,207	12,200	8,236	6,987	3,974,383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	937	632	537	305,207	12,200	8,236	6,987	3,974,383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Health Club	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

Hearth Type	Unmitigated (number)
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	14
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	14
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
405729	135,243	7,785	2,595	1,359

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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)
Apartments Low Rise	951,704	346	0.0330	0.0040	2,358,861
Parking Lot	19,842	346	0.0330	0.0040	0.00
Health Club	49,663	346	0.0330	0.0040	222,912

5.11.2. Mitigated

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)
Apartments Low Rise	0.00	346	0.0330	0.0040	2,358,861
Parking Lot	< 0.005	346	0.0330	0.0040	0.00
Health Club	0.00	346	0.0330	0.0040	222,912

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	5,653,655	2,781,981
Parking Lot	0.00	0.00
Health Club	306,953	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	5,653,655	2,781,981
Parking Lot	0.00	0.00
Health Club	306,953	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	103	—
Parking Lot	0.00	—

Health Club	29.6	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	103	—
Parking Lot	0.00	—
Health Club	29.6	—

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
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

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

5.15.2. Mitigated

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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	26.8	annual days of extreme heat
Extreme Precipitation	2.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.0	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	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	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	0	0	0	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	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
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	1	1	1	2

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	98.7

AQ-PM	64.4
AQ-DPM	63.8
Drinking Water	66.9
Lead Risk Housing	99.0
Pesticides	26.7
Toxic Releases	79.9
Traffic	84.3
Effect Indicators	—
CleanUp Sites	83.0
Groundwater	14.5
Haz Waste Facilities/Generators	57.5
Impaired Water Bodies	0.00
Solid Waste	66.7
Sensitive Population	—
Asthma	69.2
Cardio-vascular	84.9
Low Birth Weights	93.6
Socioeconomic Factor Indicators	—
Education	93.7
Housing	89.1
Linguistic	79.2
Poverty	98.0
Unemployment	98.1

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	4.067753112
Employed	10.67624791
Median HI	6.351854228
Education	—
Bachelor's or higher	5.504940331
High school enrollment	18.45245733
Preschool enrollment	9.547029385
Transportation	—
Auto Access	24.53483896
Active commuting	49.46747081
Social	—
2-parent households	16.55331708
Voting	0.20531246
Neighborhood	—
Alcohol availability	38.88104709
Park access	28.17913512
Retail density	72.02617734
Supermarket access	45.07891698
Tree canopy	0.757089696
Housing	—
Homeownership	15.87321956
Housing habitability	7.570896959
Low-inc homeowner severe housing cost burden	48.33825228
Low-inc renter severe housing cost burden	4.311561658
Uncrowded housing	6.172205826
Health Outcomes	—
Insured adults	6.454510458
Arthritis	29.1

Asthma ER Admissions	33.3
High Blood Pressure	15.4
Cancer (excluding skin)	89.7
Asthma	2.1
Coronary Heart Disease	19.3
Chronic Obstructive Pulmonary Disease	4.4
Diagnosed Diabetes	9.0
Life Expectancy at Birth	80.6
Cognitively Disabled	62.4
Physically Disabled	43.7
Heart Attack ER Admissions	40.6
Mental Health Not Good	1.3
Chronic Kidney Disease	10.6
Obesity	0.5
Pedestrian Injuries	78.3
Physical Health Not Good	1.5
Stroke	11.3
Health Risk Behaviors	—
Binge Drinking	85.2
Current Smoker	1.2
No Leisure Time for Physical Activity	1.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	1.2
Elderly	96.7
English Speaking	23.5
Foreign-born	67.9

Outdoor Workers	17.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	88.6
Traffic Density	83.2
Traffic Access	55.9
Other Indices	—
Hardship	97.3
Other Decision Support	—
2016 Voting	2.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	99.0
Healthy Places Index Score for Project Location (b)	1.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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	139 apartment units (177,195 SF plus 23,165 SF of private outdoor space = 200,360 SF total). 69 space parking lot. 5,190 SF clubhouse/gym/pool equipment area all on ~9.32 gross acres, with 143,555 SF of landscaping.
Operations: Vehicle Data	Traffic study states daily trip generation rate of 6.74 trips/DU. ITE rates for land use (220) show 4.55 trips/DU for Saturday and 3.86 trips/DU for Sunday.
Operations: Hearths	No wood burning or gas fireplaces. No woodstoves.
Construction: Construction Phases	Construction to start ~10-9-25 and end ~6-23-27.
Construction: Dust From Material Movement	Project to import 4,000 CY of material
Characteristics: Utility Information	Per site plan, SCE is energy provider.

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			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Air District
Region: South Coast AQMD
Calendar Year: 2027
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 AQMD	2027	HHDT	Aggregate	Aggregate	Gasoline	42.22461917	844.8301803	0	0.845905524	845.9055239	2340315.273	3642.933362	15005985.67	**6.41**	**HHDT**
South Coast AQMD	2027	HHDT	Aggregate	Aggregate	Diesel	109785.6879	1737165.003	0	2221.438325	2221438.325		14048359.15			
South Coast AQMD	2027	HHDT	Aggregate	Aggregate	Electricity	1963.083253	27094.43747	399624.9628	0	0		222610.3707			
South Coast AQMD	2027	HHDT	Aggregate	Aggregate	Natural Gas	11674.3608	76041.43005	0	118.0310423	118031.0423		731373.2115			
South Coast AQMD	2027	LDA	Aggregate	Aggregate	Gasoline	5292952.011	24588561.68	0	6736.425505	6736425.505	6879636.533	209877105.2	236403904.4	**34.36**	**LDA**
South Coast AQMD	2027	LDA	Aggregate	Aggregate	Diesel	11343.36842	47546.96248	0	8.000879878	8000.879878		342766.1364			
South Coast AQMD	2027	LDA	Aggregate	Aggregate	Electricity	382326.021	1887651.906	6934527.621	0	0		17961256.99			
South Coast AQMD	2027	LDA	Aggregate	Aggregate	Plug-in Hybrid	181957.9471	752396.1111	1332662.354	135.2101474	135210.1474		8222776.144			
South Coast AQMD	2027	LDT1	Aggregate	Aggregate	Gasoline	483650.6628	2131068.068	0	676.2889633	676288.9633	677679.0104	17463099.15	17661445.57	**26.06**	**LDT1**
South Coast AQMD	2027	LDT1	Aggregate	Aggregate	Diesel	72.47304878	202.8198264	0	0.055238707	55.23870659		1350.090527			
South Coast AQMD	2027	LDT1	Aggregate	Aggregate	Electricity	2326.484568	11392.0576	41784.17207	0	0		108226.0096			
South Coast AQMD	2027	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1791.513373	7407.907796	15528.30338	1.334808306	1334.808306		88770.31671			
South Coast AQMD	2027	LDT2	Aggregate	Aggregate	Gasoline	2709857.914	12737546.1	0	4313.148267	4313148.267	4350185.714	110939276.7	114104009.8	**26.23**	**LDT2**
South Coast AQMD	2027	LDT2	Aggregate	Aggregate	Diesel	9470.49356	45293.05164	0	11.78983446	11789.83446		398857.2121			
South Coast AQMD	2027	LDT2	Aggregate	Aggregate	Electricity	33328.40634	168220.7459	447834.9088	0	0		1159946.045			
South Coast AQMD	2027	LDT2	Aggregate	Aggregate	Plug-in Hybrid	34034.90091	140734.3152	272246.6681	25.24761304	25247.61304		1605929.848			
South Coast AQMD	2027	LHDT1	Aggregate	Aggregate	Gasoline	204177.5206	3041940.833	0	555.2525794	555252.5794	880592.892	8070688.867	13403415.35	**15.22**	**LHDT1**
South Coast AQMD	2027	LHDT1	Aggregate	Aggregate	Diesel	117262.8928	1475019.675	0	233.8979488	233897.9488		4874498.191			
South Coast AQMD	2027	LHDT1	Aggregate	Aggregate	Electricity	7096.240852	99221.40185	256964.2042	0	0		458228.2935			
South Coast AQMD	2027	LHDT2	Aggregate	Aggregate	Gasoline	31368.01714	467336.7171	0	91.44236371	91442.36371	254321.0749	1154954.927	3444960.871	**13.55**	**LHDT2**
South Coast AQMD	2027	LHDT2	Aggregate	Aggregate	Diesel	53302.12511	670473.6798	0	123.4459394	123445.9394		2177153.701			
South Coast AQMD	2027	LHDT2	Aggregate	Aggregate	Electricity	1836.37061	24358.87296	63323.6429	0	0		112852.2439			
South Coast AQMD	2027	MCY	Aggregate	Aggregate	Gasoline	260939.8803	521879.7606	0	39.43277181	39432.77181	39432.77181	1652499.991	1652499.991	**41.91**	**MCY**
South Coast AQMD	2027	MDV	Aggregate	Aggregate	Gasoline	1663072.03	7704064.015	0	3067.38483	3067384.83	3114417.663	64089695.27	67065502.29	**21.53**	**MDV**
South Coast AQMD	2027	MDV	Aggregate	Aggregate	Diesel	20727.63341	96430.24125	0	31.8732476	31873.2476		797868.609			
South Coast AQMD	2027	MDV	Aggregate	Aggregate	Electricity	35494.03501	179022.2212	475791.9734	0	0		1232358.19			
South Coast AQMD	2027	MDV	Aggregate	Aggregate	Plug-in Hybrid	21257.16638	87898.38298	159288.2127	15.15958565	15159.58565		945580.2127			
South Coast AQMD	2027	MH	Aggregate	Aggregate	Gasoline	27303.98509	2731.490668	0	54.98195496	54981.95496	67228.31633	267031.4754	390614.4014	**5.81**	**MH**
South Coast AQMD	2027	MH	Aggregate	Aggregate	Diesel	12674.02605	1267.402605	0	12.24636137	12246.36137		123582.926			
South Coast AQMD	2027	MHDT	Aggregate	Aggregate	Gasoline	23815.1628	476493.7772	0	236.6641711	236664.1711	808852.0944	1256459.486	6595722.418	**8.15**	**MHDT**
South Coast AQMD	2027	MHDT	Aggregate	Aggregate	Diesel	123435.1763	1521608.144	0	562.4705983	562470.5983		5083926.7			
South Coast AQMD	2027	MHDT	Aggregate	Aggregate	Electricity	3275.837038	43278.04101	182487.0218	0	0		174000.2334			
South Coast AQMD	2027	MHDT	Aggregate	Aggregate	Natural Gas	1802.608103	15970.70664	0	9.717325022	9717.325022		81335.99902			
South Coast AQMD	2027	OBUS	Aggregate	Aggregate	Gasoline	4955.165838	99142.95809	0	36.16531409	36165.31409	72770.88571	189255.3698	465955.4929	**6.40**	**OBUS**
South Coast AQMD	2027	OBUS	Aggregate	Aggregate	Diesel	3275.954322	42275.14447	0	33.10732431	33107.32431		239102.3886			
South Coast AQMD	2027	OBUS	Aggregate	Aggregate	Electricity	79.5927429	1592.4916	6080.634139	0	0		5784.446106			
South Coast AQMD	2027	OBUS	Aggregate	Aggregate	Natural Gas	554.8717395	4938.358482	0	3.498247304	3498.247304		31813.28847			
South Coast AQMD	2027	SBUS	Aggregate	Aggregate	Gasoline	2999.155296	11996.62118	0	14.8564582	14856.4582	43462.73232	134127.4921	286940.7785	**6.60**	**SBUS**
South Coast AQMD	2027	SBUS	Aggregate	Aggregate	Diesel	3086.627388	44694.36458	0	8.352838187	8352.838187		61852.28209			
South Coast AQMD	2027	SBUS	Aggregate	Aggregate	Electricity	135.4375965	1557.338441	4809.729582	0	0		4159.581422			
South Coast AQMD	2027	SBUS	Aggregate	Aggregate	Natural Gas	3603.124677	52173.24533	0	20.25343594	20253.43594		86801.42297			
South Coast AQMD	2027	UBUS	Aggregate	Aggregate	Gasoline	892.6839383	3570.735753	0	13.49194305	13491.94305	195915.9715	96836.14735	716873.7335	**3.66**	**UBUS**
South Coast AQMD	2027	UBUS	Aggregate	Aggregate	Diesel	11.1150183	44.46007321	0	0.20687658	206.8765801		1410.894969			
South Coast AQMD	2027	UBUS	Aggregate	Aggregate	Electricity	349.3725548	1397.490219	71409.53042	0	0		34324.94953			
South Coast AQMD	2027	UBUS	Aggregate	Aggregate	Natural Gas	4859.248923	19436.99569	0	182.2171519	182217.1519		584301.7416			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: County
Region: Riverside
Calendar Year: 2027
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	Total VMT	CVMT	EVMT	Trips	Energy Consumption	Fuel Consumption
Riverside	2027	HHDT	Aggregate	Aggregate	Gasoline	6.705978975	560.2866196	560.2866	0	134.1732273	0	0.142153596
Riverside	2027	HHDT	Aggregate	Aggregate	Diesel	28295.94671	4421474.668	4421475	0	501247.944	0	685.4041256
Riverside	2027	HHDT	Aggregate	Aggregate	Electricity	471.1635235	65126.63288	0	65126.633	7661.833066	117787.3794	0
Riverside	2027	HHDT	Aggregate	Aggregate	Natural Gas	1034.422414	68888.02748	68888.03	0	9310.742068	0	11.00243556
Riverside	2027	LDA	Aggregate	Aggregate	Gasoline	629868.0952	25826570.41	25826570	0	2927808.905	0	826.9709519
Riverside	2027	LDA	Aggregate	Aggregate	Diesel	1556.024758	51389.87715	51389.88	0	6700.127001	0	1.169237444
Riverside	2027	LDA	Aggregate	Aggregate	Electricity	41335.3283	1935846.788	0	1935846.8	205115.0874	747396.6344	0
Riverside	2027	LDA	Aggregate	Aggregate	Plug-in Hybrid	21618.70581	1003612.618	465735.4	537877.18	89393.34851	162454.9392	15.44190441
Riverside	2027	LDT1	Aggregate	Aggregate	Gasoline	53721.02723	1991124.054	1991124	0	233964.7227	0	77.61789013
Riverside	2027	LDT1	Aggregate	Aggregate	Diesel	12.46842613	230.2606991	230.2607	0	34.77855167	0	0.009051181
Riverside	2027	LDT1	Aggregate	Aggregate	Electricity	208.0056009	10115.51985	0	10115.52	1043.130273	3905.42554	0
Riverside	2027	LDT1	Aggregate	Aggregate	Plug-in Hybrid	185.9775531	9604.731304	4044.595	5560.1367	769.017182	1679.326998	0.134697604
Riverside	2027	LDT2	Aggregate	Aggregate	Gasoline	300107.9094	12822913.74	12822914	0	1408618.885	0	496.9253571
Riverside	2027	LDT2	Aggregate	Aggregate	Diesel	1040.470618	45994.46131	45994.46	0	4980.447103	0	1.320502376
Riverside	2027	LDT2	Aggregate	Aggregate	Electricity	3646.006859	124134.3107	0	124134.31	18387.84456	47926.08928	0
Riverside	2027	LDT2	Aggregate	Aggregate	Plug-in Hybrid	3737.817967	183750.1309	80722.22	103027.91	15455.87729	31117.49841	2.697630493
Riverside	2027	LHDT1	Aggregate	Aggregate	Gasoline	23559.93668	881710.9563	881711	0	351007.9523	0	60.29273597
Riverside	2027	LHDT1	Aggregate	Aggregate	Diesel	18905.98906	688561.9563	688562	0	237813.5587	0	33.00372441
Riverside	2027	LHDT1	Aggregate	Aggregate	Electricity	700.1813165	44302.20183	0	44302.202	9800.808049	25049.07302	0
Riverside	2027	LHDT2	Aggregate	Aggregate	Gasoline	3552.105687	124420.5187	124420.5	0	52921.08209	0	9.785969705
Riverside	2027	LHDT2	Aggregate	Aggregate	Diesel	8664.740349	314095.8877	314095.9	0	108991.5334	0	17.9697024
Riverside	2027	LHDT2	Aggregate	Aggregate	Electricity	178.1617915	10745.20025	0	10745.2	2363.24648	6078.479335	0
Riverside	2027	MCY	Aggregate	Aggregate	Gasoline	31244.43729	180779.8646	180779.9	0	62488.87459	0	4.275871652
Riverside	2027	MDV	Aggregate	Aggregate	Gasoline	216400.8647	8685355.377	8685355	0	991382.0427	0	419.4298488
Riverside	2027	MDV	Aggregate	Aggregate	Diesel	3067.061238	122265.2219	122265.2	0	14071.75484	0	4.907377321
Riverside	2027	MDV	Aggregate	Aggregate	Electricity	3939.335678	133723.7427	0	133723.74	19848.20158	51628.40149	0
Riverside	2027	MDV	Aggregate	Aggregate	Plug-in Hybrid	2465.74681	117137.8427	52314.66	64823.183	10195.86306	19578.53335	1.769878887
Riverside	2027	MH	Aggregate	Aggregate	Gasoline	5006.909766	43083.20456	43083.2	0	500.8912529	0	8.845524972
Riverside	2027	MH	Aggregate	Aggregate	Diesel	2563.659265	21372.37616	21372.38	0	256.3659265	0	2.062298949
Riverside	2027	MHDT	Aggregate	Aggregate	Gasoline	1927.990351	103093.3843	103093.4	0	38575.23094	0	19.21175146
Riverside	2027	MHDT	Aggregate	Aggregate	Diesel	16576.12163	716483.2446	716483.2	0	198249.9541	0	78.75516671
Riverside	2027	MHDT	Aggregate	Aggregate	Electricity	454.1119717	24259.53615	0	24259.536	5724.74974	25608.01717	0
Riverside	2027	MHDT	Aggregate	Aggregate	Natural Gas	234.4547552	10424.5488	10424.55	0	2018.727125	0	1.173392815
Riverside	2027	OBUS	Aggregate	Aggregate	Gasoline	482.5016009	20206.12859	20206.13	0	9653.892031	0	3.82391525
Riverside	2027	OBUS	Aggregate	Aggregate	Diesel	299.9108443	20078.95982	20078.96	0	3559.316302	0	2.596563991
Riverside	2027	OBUS	Aggregate	Aggregate	Electricity	7.720171355	616.4555084	0	616.45551	154.4651885	654.0457012	0
Riverside	2027	OBUS	Aggregate	Aggregate	Natural Gas	48.28852732	2749.173199	2749.173	0	429.7678932	0	0.270334779
Riverside	2027	SBUS	Aggregate	Aggregate	Gasoline	537.4047498	24639.89895	24639.9	0	2149.618999	0	2.754350054
Riverside	2027	SBUS	Aggregate	Aggregate	Diesel	618.8047245	12498.43538	12498.44	0	8960.29241	0	1.693840577
Riverside	2027	SBUS	Aggregate	Aggregate	Electricity	19.75443506	585.1920033	0	585.192	246.8634931	676.6582989	0
Riverside	2027	SBUS	Aggregate	Aggregate	Natural Gas	654.660935	15603.32077	15603.32	0	9479.490339	0	3.685133508
Riverside	2027	UBUS	Aggregate	Aggregate	Gasoline	147.0093126	18606.89257	18606.89	0	588.0372504	0	3.253359958
Riverside	2027	UBUS	Aggregate	Aggregate	Diesel	0.3117338	30.10971099	30.10971	0	1.246935201	0	0.002674823
Riverside	2027	UBUS	Aggregate	Aggregate	Electricity	21.78589291	849.1365274	0	849.13653	87.14357163	1715.017875	0
Riverside	2027	UBUS	Aggregate	Aggregate	Natural Gas	371.9613267	46886.63825	46886.64	0	1487.845307	0	10.66537223

Gasoline & Diesel Usage

% Fleet Mix	gas	diesel	total
VMT (miles/day)	50723064.72	6414475.459	57137540.17
% total	88.77%	11.23%	

Miles/Gallon	gas	diesel
VMT (miles/day)	50723064.72	6414475.459
Fuel Consumption (gallons/day)	1933329.681	828894.2658
	26.23611753	7.738593116

APPENDIX C

HRA CALCULATIONS AND AERMOD PRINTOUTS

Moreno Valley Farm

Estimation of DPM Emissions Along the 60 Freeway

Cal Trans Vehicle Traffic - 2022

Segment	Ahead AADT	Total Trucks	LDA/LDT/MDT	% LDA/LDT/MDT	% Trucks	2 axle	2 axle % Trucks	3 axle	3 axle % Trucks	4+ axle	4+ Axle % Trucks
	145000	15225	129775	89.5%	10.5%	6547	43.0%	914	6.0%	7765	51.0%
60 FWY, EAST JCT. RTE. 215											

Diesel Vehicle Distribution

Vehicle Mix
2 axle trucks = LHDT1 and LHDT2
3 axle trucks = MHDT
4+ axle trucks = HHDT

Adjusted Fleet Mix

	SCAB CalEEMod Fleet Mix	Adjusted Fleet Mix	Daily Trips
LDA	54.48	59.2%	76849
LDT1	5.89	6.4%	8308
LDT2	18.69	20.3%	26364
MDV	12.94	14.1%	18253
Total	92	100.0%	129775
LHD1	2.44	78.9%	5166
LHD2	0.652	21.1%	1381
Total	3.092	100.0%	6547
MHDT			914
HHDT			7765
Total - All Vehicles			145001

Diesel Vehicle Distribution (from EMFAC2021: 2027 in SCAQMD)

	% Diesel	Daily Diesel Vehicles
LDA	0.26%	200
LDT1	0.03%	2
LDT2	0.34%	90
MDV	1.24%	226
LHDT1	35.11%	1814
LHDT2	60.82%	840
MHDT	82.75%	756
HHDT	99.95%	7761

Vehicle Speed/1-year Average DPM Emission Factor (2027) from EMFAC2021 for South Coast AB

	Speed (mph)	Emission Factor (g/mi)
LDA	70	0.017824002
LDT1	70	0.235580126
LDT2	70	0.003517293
MDV	60	0.004620004
LHDT1	60	0.011801779
LHDT2	60	0.012448994
MHDT	55	0.008688
HHDT	55	0.020704

Vehicle Emissions

Vehicle Emissions = Emission Factor (g/mi) x Mile/Trip x Trip/Day

Length of Roadway Segment	1609.6 meters or		1604.1
	1.000 miles		

Assumption: over an annual period, traffic is assumed to be uniformly distributed during the day

	Daily Emissions (g/day)	Hourly Emissions (g/sec)			
LDA	3.6	4.12E-05			
LDT1	0.6	6.80E-06			
LDT2	0.3	3.65E-06			
MDV	1.0	1.21E-05			
LHDT1	21.4	2.48E-04			
LHDT2	10.5	1.21E-04			
MHDT	6.6	7.60E-05			
HHDT	160.7	1.86E-03			
			EB	WB	
Total	204.6	2.37E-03	**1.18E-03**		**1.18E-03**

Moreno Valley Farm

Estimation of DPM Emissions Along the 215 Freeway

Cal Trans Vehicle Traffic - 2022

Segment	Back AADT	Total Trucks	LDA/LDT/MDT	% LDA/LDT/MDT	% Trucks	2 axle	2 axle % Trucks	3 axle	3 axle % Trucks	4+ axle	4+ Axle % Trucks
215 FWY, JCT. RTE 60 EAST	152000	22040	129960	85.5%	14.5%	9587	43.5%	1389	6.3%	11064	50.2%

Diesel Vehicle Distribution

Vehicle Mix
2 axle trucks = LHDT1 and LHDT2
3 axle trucks = MHDT
4+ axle trucks = HHDT

Adjusted Fleet Mix

	SCAB CalEEMod Fleet Mix	Adjusted Fleet Mix	Daily Trips
LDA	54.48	59.2%	76959
LDT1	5.89	6.4%	8320
LDT2	18.69	20.3%	26402
MDV	12.94	14.1%	18279
Total	92	100.0%	129960
LHD1	2.44	78.9%	7565
LHD2	0.652	21.1%	2022
Total	3.092	100.0%	9587
MHDT			1389
HHDT			11064
Total - All Vehicles			152000

Diesel Vehicle Distribution (from EMFAC2021: 2027 in SCAQMD)

	% Diesel	Daily Diesel Vehicles
LDA	0.26%	200
LDT1	0.03%	2
LDT2	0.34%	90
MDV	1.24%	227
LHDT1	35.11%	2656
LHDT2	60.82%	1230
MHDT	82.75%	1149
HHDT	99.95%	11058

Vehicle Speed/1-year Average DPM Emission Factor (2024) from EMFAC2021 for South Coast AB

	Speed (mph)	Emission Factor (g/mi)
LDA	70	0.017824002
LDT1	70	0.235580126
LDT2	70	0.003517293
MDV	60	0.004620004
LHDT1	60	0.011801779
LHDT2	60	0.012448994
MHDT	55	0.008688
HHDT	55	0.020704

Vehicle Emissions

Vehicle Emissions = Emission Factor (g/mi) x Mile/Trip x Trip/Day

Length of Roadway Segment SB 1312 meters; NB 1183.6

0.815 miles

Assumption: over an annual period, traffic is assumed to be uniformly distributed during the day

	Daily Emissions (g/day)	Hourly Emissions (g/sec)		
LDA	2.9	3.36E-05		
LDT1	0.5	5.55E-06		
LDT2	0.3	2.98E-06		
MDV	0.9	9.88E-06		
LHDT1	25.5	2.96E-04		
LHDT2	12.5	1.44E-04		
MHDT	8.1	9.42E-05		
HHDT	186.6	2.16E-03		
			NB	
Total	237.3	2.75E-03		**1.37E-03**

Moreno Valley Farm

Estimation of DPM Emissions Along the 215 Freeway

Cal Trans Vehicle Traffic - 2022

Segment	Back AADT	Total Trucks	LDA/LDT/MDT	% LDA/LDT/MDT	% Trucks	2 axle	2 axle % Trucks	3 axle	3 axle % Trucks	4+ axle	4+ Axle % Trucks
215 FWY, JCT. RTE 60 EAST	152000	22040	129960	85.5%	14.5%	9587	43.5%	1389	6.3%	11064	50.2%

Diesel Vehicle Distribution

Vehicle Mix
2 axle trucks = LHDT1 and LHDT2
3 axle trucks = MHDT
4+ axle trucks = HHDT

Adjusted Fleet Mix

	SCAB CalEEMod Fleet Mix	Adjusted Fleet Mix	Daily Trips
LDA	54.48	59.2%	76959
LDT1	5.89	6.4%	8320
LDT2	18.69	20.3%	26402
MDV	12.94	14.1%	18279
Total	92	100.0%	129960
LHD1	2.44	78.9%	7565
LHD2	0.652	21.1%	2022
Total	3.092	100.0%	9587
MHDT			1389
HHDT			11064
Total - All Vehicles			152000

Diesel Vehicle Distribution (from EMFAC2021: 2027 in SCAQMD)

	% Diesel	Daily Diesel Vehicles
LDA	0.26%	200
LDT1	0.03%	2
LDT2	0.34%	90
MDV	1.24%	227
LHDT1	35.11%	2656
LHDT2	60.82%	1230
MHDT	82.75%	1149
HHDT	99.95%	11058

Vehicle Speed/1-year Average DPM Emission Factor (2024) from EMFAC2021 for South Coast AB

	Speed (mph)	Emission Factor (g/mi)
LDA	70	0.017824002
LDT1	70	0.235580126
LDT2	70	0.003517293
MDV	60	0.004620004
LHDT1	60	0.011801779
LHDT2	60	0.012448994
MHDT	55	0.008688
HHDT	55	0.020704

Vehicle Emissions

Vehicle Emissions = Emission Factor (g/mi) x Mile/Trip x Trip/Day

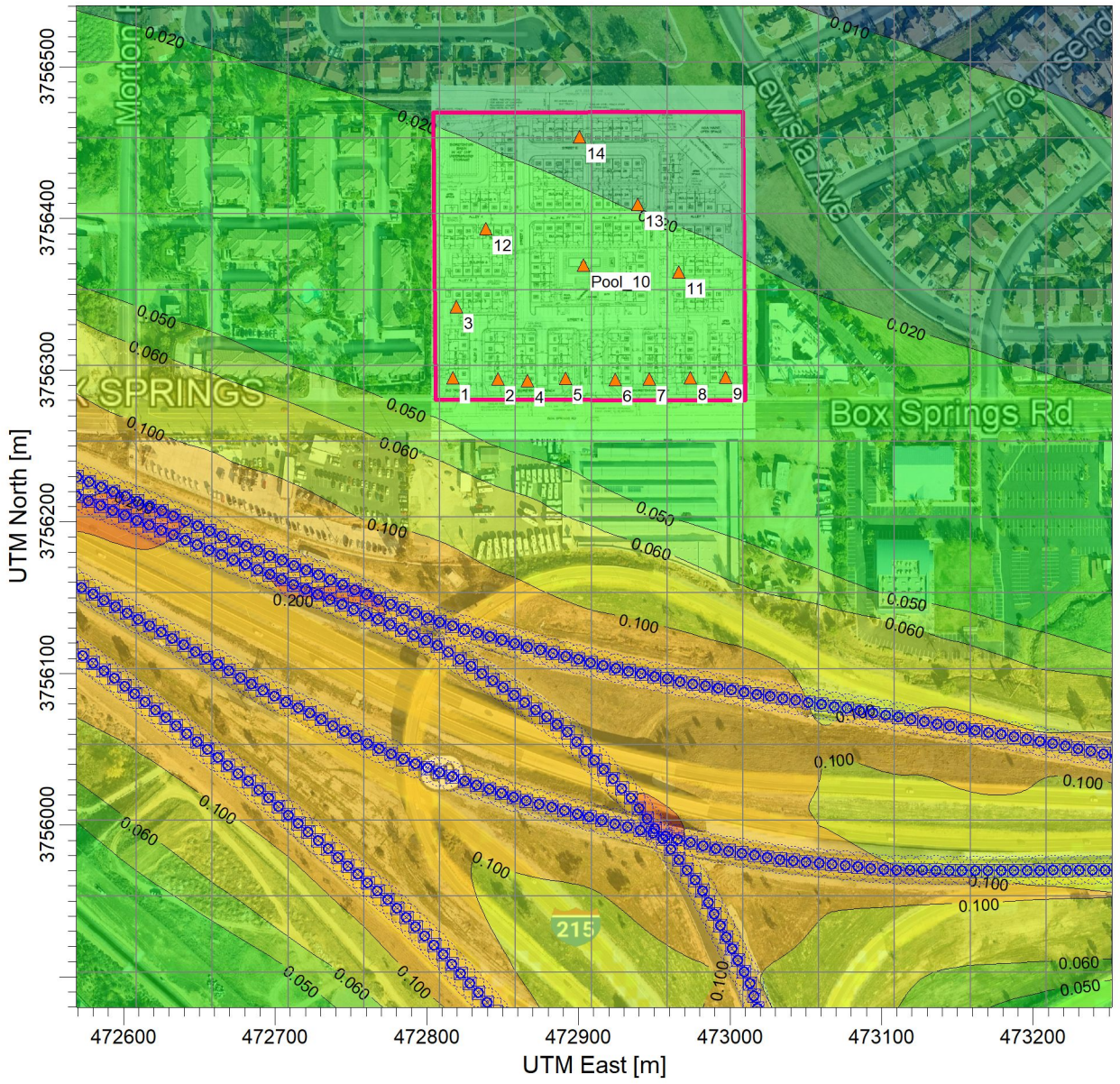
Length of Roadway Segment 1183.6 meters or
0.735 miles

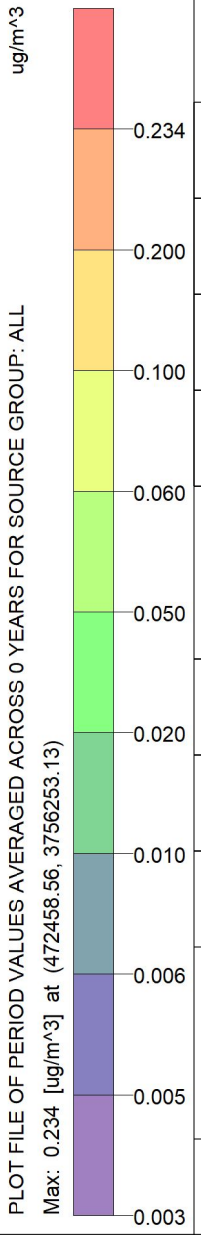
Assumption: over an annual period, traffic is assumed to be uniformly distributed during the day

	Daily Emissions (g/day)	Hourly Emissions (g/sec)		
LDA	2.6	3.04E-05		
LDT1	0.4	5.00E-06		
LDT2	0.2	2.69E-06		
MDV	0.8	8.91E-06		
LHDT1	23.0	2.67E-04		
LHDT2	11.3	1.30E-04		
MHDT	7.3	8.50E-05		
HHDT	168.3	1.95E-03		
			SB	
Total	214.0	2.48E-03		**1.24E-03**

PROJECT TITLE:

DPM Concentrations





COMMENTS:

SOURCES:

4

RECEPTORS:

455

OUTPUT TYPE:

Concentration

MAX:

0.234 ug/m^3

COMPANY NAME:

MODELER:

DATE:

1/23/2025

SCALE: 1:4,500

0 0.1 km

PROJECT NO.:

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** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 1/22/2025
** File: C:\Lakes\AERMOD View\Moreno Valley Farm Bureau\Moreno Valley Farm Bureau.ADI
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** AERMOD Control Pathway
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   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 2492442 Riverside
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "Moreno Valley Farm Bureau.err"
CO FINISHED
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** AERMOD Source Pathway
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** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC 60 freeway westbound
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00118
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
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** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
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** Elevated
** Vertical Dimension = 7.00
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** PREFIX
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** Configuration = Adjacent
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LOCATION L0000408     VOLUME   472387.477 3756236.260 461.49
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LOCATION L0000415     VOLUME   472438.589 3756204.576 461.69
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LOCATION L0000440     VOLUME   472614.380 3756081.270 465.45
LOCATION L0000441     VOLUME   472621.204 3756076.051 465.45
LOCATION L0000442     VOLUME   472628.028 3756070.833 465.74
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LOCATION L0000503     VOLUME   472999.016 3755704.006 470.94
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC 215 freeway northbound
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
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** Elevated
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   LOCATION L0000522     VOLUME   473058.539 3755712.338 470.62
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LOCATION L0000582     VOLUME   472791.438 3756125.461 464.60
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   LOCATION L0000647     VOLUME   472285.260 3756359.101 458.27
   LOCATION L0000648     VOLUME   472278.244 3756364.046 458.11
   LOCATION L0000649     VOLUME   472271.394 3756369.230 457.92
   LOCATION L0000650     VOLUME   472264.544 3756374.415 457.69
   LOCATION L0000651     VOLUME   472257.694 3756379.599 457.42
   LOCATION L0000652     VOLUME   472250.844 3756384.784 457.12
   LOCATION L0000653     VOLUME   472243.994 3756389.968 456.79
   LOCATION L0000654     VOLUME   472237.144 3756395.153 456.61
   LOCATION L0000655     VOLUME   472230.294 3756400.337 456.41
   LOCATION L0000656     VOLUME   472223.444 3756405.522 456.11
   LOCATION L0000657     VOLUME   472216.594 3756410.706 455.70
   LOCATION L0000658     VOLUME   472210.020 3756416.231 455.32
   LOCATION L0000659     VOLUME   472203.530 3756421.860 454.95
   LOCATION L0000660     VOLUME   472197.040 3756427.489 454.79
   LOCATION L0000661     VOLUME   472190.550 3756433.118 454.43
   LOCATION L0000662     VOLUME   472184.061 3756438.746 454.08
   LOCATION L0000663     VOLUME   472177.571 3756444.375 453.74
   LOCATION L0000664     VOLUME   472171.081 3756450.004 453.34
   LOCATION L0000665     VOLUME   472164.591 3756455.633 453.02
** End of LINE VOLUME Source ID = SLINE4
** Source Parameters **
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SRCPARAM L0000280     0.00000631      3.50      4.00      1.63
SRCPARAM L0000281     0.00000631      3.50      4.00      1.63
SRCPARAM L0000282     0.00000631      3.50      4.00      1.63
SRCPARAM L0000283     0.00000631      3.50      4.00      1.63
SRCPARAM L0000284     0.00000631      3.50      4.00      1.63
SRCPARAM L0000285     0.00000631      3.50      4.00      1.63
SRCPARAM L0000286     0.00000631      3.50      4.00      1.63
SRCPARAM L0000287     0.00000631      3.50      4.00      1.63
SRCPARAM L0000288     0.00000631      3.50      4.00      1.63
SRCPARAM L0000289     0.00000631      3.50      4.00      1.63
SRCPARAM L0000290     0.00000631      3.50      4.00      1.63
SRCPARAM L0000291     0.00000631      3.50      4.00      1.63
SRCPARAM L0000292     0.00000631      3.50      4.00      1.63
SRCPARAM L0000293     0.00000631      3.50      4.00      1.63
SRCPARAM L0000294     0.00000631      3.50      4.00      1.63
SRCPARAM L0000295     0.00000631      3.50      4.00      1.63
SRCPARAM L0000296     0.00000631      3.50      4.00      1.63
SRCPARAM L0000297     0.00000631      3.50      4.00      1.63
SRCPARAM L0000298     0.00000631      3.50      4.00      1.63
SRCPARAM L0000299     0.00000631      3.50      4.00      1.63
SRCPARAM L0000300     0.00000631      3.50      4.00      1.63
SRCPARAM L0000301     0.00000631      3.50      4.00      1.63
SRCPARAM L0000302     0.00000631      3.50      4.00      1.63
SRCPARAM L0000303     0.00000631      3.50      4.00      1.63
SRCPARAM L0000304     0.00000631      3.50      4.00      1.63
SRCPARAM L0000305     0.00000631      3.50      4.00      1.63
SRCPARAM L0000306     0.00000631      3.50      4.00      1.63
SRCPARAM L0000307     0.00000631      3.50      4.00      1.63
SRCPARAM L0000308     0.00000631      3.50      4.00      1.63
SRCPARAM L0000309     0.00000631      3.50      4.00      1.63
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SRCPARAM L0000311     0.00000631      3.50      4.00      1.63
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SRCPARAM L0000312     0.00000631      3.50      4.00      1.63
SRCPARAM L0000313     0.00000631      3.50      4.00      1.63
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SRCPARAM L0000315     0.00000631      3.50      4.00      1.63
SRCPARAM L0000316     0.00000631      3.50      4.00      1.63
SRCPARAM L0000317     0.00000631      3.50      4.00      1.63
SRCPARAM L0000318     0.00000631      3.50      4.00      1.63
SRCPARAM L0000319     0.00000631      3.50      4.00      1.63
SRCPARAM L0000320     0.00000631      3.50      4.00      1.63
SRCPARAM L0000321     0.00000631      3.50      4.00      1.63
SRCPARAM L0000322     0.00000631      3.50      4.00      1.63
SRCPARAM L0000323     0.00000631      3.50      4.00      1.63
SRCPARAM L0000324     0.00000631      3.50      4.00      1.63
SRCPARAM L0000325     0.00000631      3.50      4.00      1.63
SRCPARAM L0000326     0.00000631      3.50      4.00      1.63
SRCPARAM L0000327     0.00000631      3.50      4.00      1.63
SRCPARAM L0000328     0.00000631      3.50      4.00      1.63
SRCPARAM L0000329     0.00000631      3.50      4.00      1.63
SRCPARAM L0000330     0.00000631      3.50      4.00      1.63
SRCPARAM L0000331     0.00000631      3.50      4.00      1.63
SRCPARAM L0000332     0.00000631      3.50      4.00      1.63
SRCPARAM L0000333     0.00000631      3.50      4.00      1.63
SRCPARAM L0000334     0.00000631      3.50      4.00      1.63
SRCPARAM L0000335     0.00000631      3.50      4.00      1.63
SRCPARAM L0000336     0.00000631      3.50      4.00      1.63
SRCPARAM L0000337     0.00000631      3.50      4.00      1.63
SRCPARAM L0000338     0.00000631      3.50      4.00      1.63
SRCPARAM L0000339     0.00000631      3.50      4.00      1.63
SRCPARAM L0000340     0.00000631      3.50      4.00      1.63
SRCPARAM L0000341     0.00000631      3.50      4.00      1.63
SRCPARAM L0000342     0.00000631      3.50      4.00      1.63
SRCPARAM L0000343     0.00000631      3.50      4.00      1.63
SRCPARAM L0000344     0.00000631      3.50      4.00      1.63
SRCPARAM L0000345     0.00000631      3.50      4.00      1.63
SRCPARAM L0000346     0.00000631      3.50      4.00      1.63
SRCPARAM L0000347     0.00000631      3.50      4.00      1.63
SRCPARAM L0000348     0.00000631      3.50      4.00      1.63
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SRCPARAM L0000351     0.00000631      3.50      4.00      1.63
SRCPARAM L0000352     0.00000631      3.50      4.00      1.63
SRCPARAM L0000353     0.00000631      3.50      4.00      1.63
SRCPARAM L0000354     0.00000631      3.50      4.00      1.63
SRCPARAM L0000355     0.00000631      3.50      4.00      1.63
SRCPARAM L0000356     0.00000631      3.50      4.00      1.63
SRCPARAM L0000357     0.00000631      3.50      4.00      1.63
SRCPARAM L0000358     0.00000631      3.50      4.00      1.63
SRCPARAM L0000359     0.00000631      3.50      4.00      1.63
SRCPARAM L0000360     0.00000631      3.50      4.00      1.63
SRCPARAM L0000361     0.00000631      3.50      4.00      1.63
SRCPARAM L0000362     0.00000631      3.50      4.00      1.63
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   SRCPARAM L0000363     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000364     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000365     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000366     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000367     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000368     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000369     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000370     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000371     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000372     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000373     0.00000631      3.50      4.00      1.63
   SRCPARAM L0000374     0.00000631      3.50      4.00      1.63
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** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000375     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000376     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000377     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000378     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000379     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000380     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000381     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000382     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000383     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000384     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000385     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000386     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000387     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000388     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000389     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000390     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000391     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000392     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000393     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000394     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000395     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000396     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000397     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000398     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000399     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000400     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000401     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000402     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000403     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000404     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000405     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000406     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000407     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000408     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000409     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000410     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000411     0.000008986      3.50      4.00      1.63
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SRCPARAM L0000412     0.000008986      3.50      4.00      1.63
SRCPARAM L0000413     0.000008986      3.50      4.00      1.63
SRCPARAM L0000414     0.000008986      3.50      4.00      1.63
SRCPARAM L0000415     0.000008986      3.50      4.00      1.63
SRCPARAM L0000416     0.000008986      3.50      4.00      1.63
SRCPARAM L0000417     0.000008986      3.50      4.00      1.63
SRCPARAM L0000418     0.000008986      3.50      4.00      1.63
SRCPARAM L0000419     0.000008986      3.50      4.00      1.63
SRCPARAM L0000420     0.000008986      3.50      4.00      1.63
SRCPARAM L0000421     0.000008986      3.50      4.00      1.63
SRCPARAM L0000422     0.000008986      3.50      4.00      1.63
SRCPARAM L0000423     0.000008986      3.50      4.00      1.63
SRCPARAM L0000424     0.000008986      3.50      4.00      1.63
SRCPARAM L0000425     0.000008986      3.50      4.00      1.63
SRCPARAM L0000426     0.000008986      3.50      4.00      1.63
SRCPARAM L0000427     0.000008986      3.50      4.00      1.63
SRCPARAM L0000428     0.000008986      3.50      4.00      1.63
SRCPARAM L0000429     0.000008986      3.50      4.00      1.63
SRCPARAM L0000430     0.000008986      3.50      4.00      1.63
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SRCPARAM L0000433     0.000008986      3.50      4.00      1.63
SRCPARAM L0000434     0.000008986      3.50      4.00      1.63
SRCPARAM L0000435     0.000008986      3.50      4.00      1.63
SRCPARAM L0000436     0.000008986      3.50      4.00      1.63
SRCPARAM L0000437     0.000008986      3.50      4.00      1.63
SRCPARAM L0000438     0.000008986      3.50      4.00      1.63
SRCPARAM L0000439     0.000008986      3.50      4.00      1.63
SRCPARAM L0000440     0.000008986      3.50      4.00      1.63
SRCPARAM L0000441     0.000008986      3.50      4.00      1.63
SRCPARAM L0000442     0.000008986      3.50      4.00      1.63
SRCPARAM L0000443     0.000008986      3.50      4.00      1.63
SRCPARAM L0000444     0.000008986      3.50      4.00      1.63
SRCPARAM L0000445     0.000008986      3.50      4.00      1.63
SRCPARAM L0000446     0.000008986      3.50      4.00      1.63
SRCPARAM L0000447     0.000008986      3.50      4.00      1.63
SRCPARAM L0000448     0.000008986      3.50      4.00      1.63
SRCPARAM L0000449     0.000008986      3.50      4.00      1.63
SRCPARAM L0000450     0.000008986      3.50      4.00      1.63
SRCPARAM L0000451     0.000008986      3.50      4.00      1.63
SRCPARAM L0000452     0.000008986      3.50      4.00      1.63
SRCPARAM L0000453     0.000008986      3.50      4.00      1.63
SRCPARAM L0000454     0.000008986      3.50      4.00      1.63
SRCPARAM L0000455     0.000008986      3.50      4.00      1.63
SRCPARAM L0000456     0.000008986      3.50      4.00      1.63
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SRCPARAM L0000458     0.000008986      3.50      4.00      1.63
SRCPARAM L0000459     0.000008986      3.50      4.00      1.63
SRCPARAM L0000460     0.000008986      3.50      4.00      1.63
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SRCPARAM L0000462     0.000008986      3.50      4.00      1.63
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   SRCPARAM L0000463     0.000008986      3.50      4.00      1.63
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   SRCPARAM L0000465     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000466     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000467     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000468     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000469     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000470     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000471     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000472     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000473     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000474     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000475     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000476     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000477     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000478     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000479     0.000008986      3.50      4.00      1.63
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   SRCPARAM L0000481     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000482     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000483     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000484     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000485     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000486     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000487     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000488     0.000008986      3.50      4.00      1.63
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   SRCPARAM L0000490     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000491     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000492     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000493     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000494     0.000008986      3.50      4.00      1.63
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   SRCPARAM L0000497     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000498     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000499     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000500     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000501     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000502     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000503     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000504     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000505     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000506     0.000008986      3.50      4.00      1.63
   SRCPARAM L0000507     0.000008986      3.50      4.00      1.63
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   SRCPARAM L0000510     0.000008986      3.50      4.00      1.63
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   SRCPARAM L0000512     0.000008986      3.50      4.00      1.63
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** LINE VOLUME Source ID = SLINE4
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   SRCPARAM L0000515     0.000008954      3.50      4.00      1.63
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   SRCPARAM L0000517     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000518     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000519     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000520     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000521     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000522     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000523     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000524     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000525     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000526     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000527     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000528     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000529     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000530     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000531     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000532     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000533     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000534     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000535     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000536     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000537     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000538     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000539     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000540     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000541     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000542     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000543     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000544     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000545     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000546     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000547     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000548     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000549     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000550     0.000008954      3.50      4.00      1.63
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   SRCPARAM L0000553     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000554     0.000008954      3.50      4.00      1.63
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   SRCPARAM L0000556     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000557     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000558     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000559     0.000008954      3.50      4.00      1.63
   SRCPARAM L0000560     0.000008954      3.50      4.00      1.63
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   SRCPARAM L0000562     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000563     0.000008954      3.50      4.00      1.63
SRCPARAM L0000564     0.000008954      3.50      4.00      1.63
SRCPARAM L0000565     0.000008954      3.50      4.00      1.63
SRCPARAM L0000566     0.000008954      3.50      4.00      1.63
SRCPARAM L0000567     0.000008954      3.50      4.00      1.63
SRCPARAM L0000568     0.000008954      3.50      4.00      1.63
SRCPARAM L0000569     0.000008954      3.50      4.00      1.63
SRCPARAM L0000570     0.000008954      3.50      4.00      1.63
SRCPARAM L0000571     0.000008954      3.50      4.00      1.63
SRCPARAM L0000572     0.000008954      3.50      4.00      1.63
SRCPARAM L0000573     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000575     0.000008954      3.50      4.00      1.63
SRCPARAM L0000576     0.000008954      3.50      4.00      1.63
SRCPARAM L0000577     0.000008954      3.50      4.00      1.63
SRCPARAM L0000578     0.000008954      3.50      4.00      1.63
SRCPARAM L0000579     0.000008954      3.50      4.00      1.63
SRCPARAM L0000580     0.000008954      3.50      4.00      1.63
SRCPARAM L0000581     0.000008954      3.50      4.00      1.63
SRCPARAM L0000582     0.000008954      3.50      4.00      1.63
SRCPARAM L0000583     0.000008954      3.50      4.00      1.63
SRCPARAM L0000584     0.000008954      3.50      4.00      1.63
SRCPARAM L0000585     0.000008954      3.50      4.00      1.63
SRCPARAM L0000586     0.000008954      3.50      4.00      1.63
SRCPARAM L0000587     0.000008954      3.50      4.00      1.63
SRCPARAM L0000588     0.000008954      3.50      4.00      1.63
SRCPARAM L0000589     0.000008954      3.50      4.00      1.63
SRCPARAM L0000590     0.000008954      3.50      4.00      1.63
SRCPARAM L0000591     0.000008954      3.50      4.00      1.63
SRCPARAM L0000592     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000595     0.000008954      3.50      4.00      1.63
SRCPARAM L0000596     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000601     0.000008954      3.50      4.00      1.63
SRCPARAM L0000602     0.000008954      3.50      4.00      1.63
SRCPARAM L0000603     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000605     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000608     0.000008954      3.50      4.00      1.63
SRCPARAM L0000609     0.000008954      3.50      4.00      1.63
SRCPARAM L0000610     0.000008954      3.50      4.00      1.63
SRCPARAM L0000611     0.000008954      3.50      4.00      1.63
SRCPARAM L0000612     0.000008954      3.50      4.00      1.63
SRCPARAM L0000613     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000614     0.000008954      3.50      4.00      1.63
SRCPARAM L0000615     0.000008954      3.50      4.00      1.63
SRCPARAM L0000616     0.000008954      3.50      4.00      1.63
SRCPARAM L0000617     0.000008954      3.50      4.00      1.63
SRCPARAM L0000618     0.000008954      3.50      4.00      1.63
SRCPARAM L0000619     0.000008954      3.50      4.00      1.63
SRCPARAM L0000620     0.000008954      3.50      4.00      1.63
SRCPARAM L0000621     0.000008954      3.50      4.00      1.63
SRCPARAM L0000622     0.000008954      3.50      4.00      1.63
SRCPARAM L0000623     0.000008954      3.50      4.00      1.63
SRCPARAM L0000624     0.000008954      3.50      4.00      1.63
SRCPARAM L0000625     0.000008954      3.50      4.00      1.63
SRCPARAM L0000626     0.000008954      3.50      4.00      1.63
SRCPARAM L0000627     0.000008954      3.50      4.00      1.63
SRCPARAM L0000628     0.000008954      3.50      4.00      1.63
SRCPARAM L0000629     0.000008954      3.50      4.00      1.63
SRCPARAM L0000630     0.000008954      3.50      4.00      1.63
SRCPARAM L0000631     0.000008954      3.50      4.00      1.63
SRCPARAM L0000632     0.000008954      3.50      4.00      1.63
SRCPARAM L0000633     0.000008954      3.50      4.00      1.63
SRCPARAM L0000634     0.000008954      3.50      4.00      1.63
SRCPARAM L0000635     0.000008954      3.50      4.00      1.63
SRCPARAM L0000636     0.000008954      3.50      4.00      1.63
SRCPARAM L0000637     0.000008954      3.50      4.00      1.63
SRCPARAM L0000638     0.000008954      3.50      4.00      1.63
SRCPARAM L0000639     0.000008954      3.50      4.00      1.63
SRCPARAM L0000640     0.000008954      3.50      4.00      1.63
SRCPARAM L0000641     0.000008954      3.50      4.00      1.63
SRCPARAM L0000642     0.000008954      3.50      4.00      1.63
SRCPARAM L0000643     0.000008954      3.50      4.00      1.63
SRCPARAM L0000644     0.000008954      3.50      4.00      1.63
SRCPARAM L0000645     0.000008954      3.50      4.00      1.63
SRCPARAM L0000646     0.000008954      3.50      4.00      1.63
SRCPARAM L0000647     0.000008954      3.50      4.00      1.63
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SRCPARAM L0000649     0.000008954      3.50      4.00      1.63
SRCPARAM L0000650     0.000008954      3.50      4.00      1.63
SRCPARAM L0000651     0.000008954      3.50      4.00      1.63
SRCPARAM L0000652     0.000008954      3.50      4.00      1.63
SRCPARAM L0000653     0.000008954      3.50      4.00      1.63
SRCPARAM L0000654     0.000008954      3.50      4.00      1.63
SRCPARAM L0000655     0.000008954      3.50      4.00      1.63
SRCPARAM L0000656     0.000008954      3.50      4.00      1.63
SRCPARAM L0000657     0.000008954      3.50      4.00      1.63
SRCPARAM L0000658     0.000008954      3.50      4.00      1.63
SRCPARAM L0000659     0.000008954      3.50      4.00      1.63
SRCPARAM L0000660     0.000008954      3.50      4.00      1.63
SRCPARAM L0000661     0.000008954      3.50      4.00      1.63
SRCPARAM L0000662     0.000008954      3.50      4.00      1.63
SRCPARAM L0000663     0.000008954      3.50      4.00      1.63
SRCPARAM L0000664     0.000008954      3.50      4.00      1.63
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   SRCPARAM L0000665     0.000008954      3.50      4.00      1.63
** ---------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Moreno Valley Farm Bureau.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "E:\New MET data\KRAL_V9_ADJU\KRAL_v9.SFC"
   PROFFILE "E:\New MET data\KRAL_V9_ADJU\KRAL_v9.PFL"
   SURFDATA 3171 2012
   UAIRDATA 3190 2012
   PROFBASE 256.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "Moreno Valley Farm Bureau.AD\PE00GALL.PLT" 31
   SUMMFILE "Moreno Valley Farm Bureau.sum"
OU FINISHED


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

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

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


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

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   ********   WARNING MESSAGES   ********
ME W186    1556       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187    1556       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

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


*** AERMOD - VERSION 23132  ***   *** C:\Lakes\AERMOD View\Moreno Valley Farm Bureau\Moreno Valley Farm Bu ***        01/22/25
*** AERMET - VERSION  16216 ***   *** OY freeway DPM emissions                                              ***        10:35:17
                                                                                                                    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   665 Source(s),
       for Total of    1 Urban Area(s):
  Urban Population =   2492442.0 ;  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:    665 Source(s);       1 Source Group(s); and     455 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    665 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
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               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) =   256.00 ;  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 =      3.8 MB of RAM.

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

**Detailed Error/Message File:   Moreno Valley Farm Bureau.err
**File for Summary of Results:   Moreno Valley Farm Bureau.sum

*** AERMOD - VERSION 23132  ***   *** C:\Lakes\AERMOD View\Moreno Valley Farm Bureau\Moreno Valley Farm Bu ***        01/22/25
*** AERMET - VERSION  16216 ***   *** OY freeway DPM emissions                                             ***        10:35:17
                                                                                                                    PAGE   2
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                              *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE   AIRCRAFT
  SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

L0000001        0   0.63100E-05  473650.2 3755963.7   491.7     3.50     4.00     1.63     YES                    NO
L0000002        0   0.63100E-05  473641.7 3755965.3   491.5     3.50     4.00     1.63     YES                    NO
L0000003        0   0.63100E-05  473633.3 3755966.9   491.3     3.50     4.00     1.63     YES                    NO
L0000004        0   0.63100E-05  473624.9 3755968.5   491.0     3.50     4.00     1.63     YES                    NO
L0000005        0   0.63100E-05  473616.4 3755970.2   490.4     3.50     4.00     1.63     YES                    NO
L0000006        0   0.63100E-05  473608.0 3755971.8   489.6     3.50     4.00     1.63     YES                    NO
L0000007        0   0.63100E-05  473599.6 3755973.4   488.8     3.50     4.00     1.63     YES                    NO
L0000008        0   0.63100E-05  473591.1 3755975.0   488.3     3.50     4.00     1.63     YES                    NO
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L0000009	0	0.63100E-05	473582.7	3755976.7	487.9	3.50	4.00	1.63	YES	NO
L0000010	0	0.63100E-05	473574.3	3755978.6	487.4	3.50	4.00	1.63	YES	NO
L0000011	0	0.63100E-05	473565.9	3755980.4	487.1	3.50	4.00	1.63	YES	NO
L0000012	0	0.63100E-05	473557.5	3755982.3	486.9	3.50	4.00	1.63	YES	NO
L0000013	0	0.63100E-05	473549.2	3755984.1	486.6	3.50	4.00	1.63	YES	NO
L0000014	0	0.63100E-05	473540.8	3755986.0	486.4	3.50	4.00	1.63	YES	NO
L0000015	0	0.63100E-05	473532.4	3755987.8	486.1	3.50	4.00	1.63	YES	NO
L0000016	0	0.63100E-05	473524.0	3755989.7	485.9	3.50	4.00	1.63	YES	NO
L0000017	0	0.63100E-05	473515.6	3755991.5	485.6	3.50	4.00	1.63	YES	NO
L0000018	0	0.63100E-05	473507.2	3755993.4	485.4	3.50	4.00	1.63	YES	NO
L0000019	0	0.63100E-05	473498.8	3755995.0	485.1	3.50	4.00	1.63	YES	NO
L0000020	0	0.63100E-05	473490.3	3755996.6	484.9	3.50	4.00	1.63	YES	NO
L0000021	0	0.63100E-05	473481.9	3755998.2	484.6	3.50	4.00	1.63	YES	NO
L0000022	0	0.63100E-05	473473.5	3755999.9	484.4	3.50	4.00	1.63	YES	NO
L0000023	0	0.63100E-05	473465.0	3756001.5	484.2	3.50	4.00	1.63	YES	NO
L0000024	0	0.63100E-05	473456.6	3756003.1	484.0	3.50	4.00	1.63	YES	NO
L0000025	0	0.63100E-05	473448.2	3756004.7	483.8	3.50	4.00	1.63	YES	NO
L0000026	0	0.63100E-05	473439.7	3756006.4	483.6	3.50	4.00	1.63	YES	NO
L0000027	0	0.63100E-05	473431.4	3756008.3	483.2	3.50	4.00	1.63	YES	NO
L0000028	0	0.63100E-05	473423.0	3756010.2	482.8	3.50	4.00	1.63	YES	NO
L0000029	0	0.63100E-05	473414.6	3756012.1	482.4	3.50	4.00	1.63	YES	NO
L0000030	0	0.63100E-05	473406.2	3756014.0	482.1	3.50	4.00	1.63	YES	NO
L0000031	0	0.63100E-05	473397.8	3756015.8	481.7	3.50	4.00	1.63	YES	NO
L0000032	0	0.63100E-05	473389.4	3756017.7	481.3	3.50	4.00	1.63	YES	NO
L0000033	0	0.63100E-05	473381.1	3756019.6	480.9	3.50	4.00	1.63	YES	NO
L0000034	0	0.63100E-05	473372.7	3756021.5	480.5	3.50	4.00	1.63	YES	NO
L0000035	0	0.63100E-05	473364.3	3756023.2	480.1	3.50	4.00	1.63	YES	NO
L0000036	0	0.63100E-05	473355.8	3756024.9	479.8	3.50	4.00	1.63	YES	NO
L0000037	0	0.63100E-05	473347.4	3756026.6	479.4	3.50	4.00	1.63	YES	NO
L0000038	0	0.63100E-05	473339.0	3756028.4	479.1	3.50	4.00	1.63	YES	NO
L0000039	0	0.63100E-05	473330.6	3756030.1	478.8	3.50	4.00	1.63	YES	NO
L0000040	0	0.63100E-05	473322.2	3756031.8	478.5	3.50	4.00	1.63	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	AIRCRAFT
L0000041	0	0.63100E-05	473313.8	3756033.5	478.2	3.50	4.00	1.63	YES		NO
L0000042	0	0.63100E-05	473305.3	3756035.2	477.9	3.50	4.00	1.63	YES		NO
L0000043	0	0.63100E-05	473296.9	3756036.9	477.6	3.50	4.00	1.63	YES		NO
L0000044	0	0.63100E-05	473288.5	3756038.6	477.3	3.50	4.00	1.63	YES		NO
L0000045	0	0.63100E-05	473280.1	3756040.3	477.1	3.50	4.00	1.63	YES		NO

L0000046	0	0.63100E-05	473271.7	3756042.0	476.8	3.50	4.00	1.63	YES	NO
L0000047	0	0.63100E-05	473263.2	3756043.7	476.5	3.50	4.00	1.63	YES	NO
L0000048	0	0.63100E-05	473254.8	3756045.4	476.3	3.50	4.00	1.63	YES	NO
L0000049	0	0.63100E-05	473246.4	3756047.2	476.1	3.50	4.00	1.63	YES	NO
L0000050	0	0.63100E-05	473238.0	3756048.9	475.8	3.50	4.00	1.63	YES	NO
L0000051	0	0.63100E-05	473229.6	3756050.6	475.6	3.50	4.00	1.63	YES	NO
L0000052	0	0.63100E-05	473221.1	3756052.2	475.4	3.50	4.00	1.63	YES	NO
L0000053	0	0.63100E-05	473212.7	3756053.8	475.3	3.50	4.00	1.63	YES	NO
L0000054	0	0.63100E-05	473204.2	3756055.4	475.1	3.50	4.00	1.63	YES	NO
L0000055	0	0.63100E-05	473195.8	3756056.9	474.9	3.50	4.00	1.63	YES	NO
L0000056	0	0.63100E-05	473187.3	3756058.3	474.7	3.50	4.00	1.63	YES	NO
L0000057	0	0.63100E-05	473178.8	3756059.8	474.5	3.50	4.00	1.63	YES	NO
L0000058	0	0.63100E-05	473170.4	3756061.2	474.3	3.50	4.00	1.63	YES	NO
L0000059	0	0.63100E-05	473161.9	3756062.6	474.1	3.50	4.00	1.63	YES	NO
L0000060	0	0.63100E-05	473153.4	3756064.1	473.9	3.50	4.00	1.63	YES	NO
L0000061	0	0.63100E-05	473145.0	3756065.5	473.8	3.50	4.00	1.63	YES	NO
L0000062	0	0.63100E-05	473136.5	3756067.0	473.6	3.50	4.00	1.63	YES	NO
L0000063	0	0.63100E-05	473128.0	3756068.4	473.4	3.50	4.00	1.63	YES	NO
L0000064	0	0.63100E-05	473119.6	3756069.8	473.3	3.50	4.00	1.63	YES	NO
L0000065	0	0.63100E-05	473111.1	3756071.2	473.1	3.50	4.00	1.63	YES	NO
L0000066	0	0.63100E-05	473102.6	3756072.7	472.9	3.50	4.00	1.63	YES	NO
L0000067	0	0.63100E-05	473094.1	3756074.1	472.7	3.50	4.00	1.63	YES	NO
L0000068	0	0.63100E-05	473085.7	3756075.5	472.5	3.50	4.00	1.63	YES	NO
L0000069	0	0.63100E-05	473077.2	3756077.0	472.2	3.50	4.00	1.63	YES	NO
L0000070	0	0.63100E-05	473068.7	3756078.3	472.0	3.50	4.00	1.63	YES	NO
L0000071	0	0.63100E-05	473060.2	3756079.6	471.8	3.50	4.00	1.63	YES	NO
L0000072	0	0.63100E-05	473051.7	3756081.0	471.5	3.50	4.00	1.63	YES	NO
L0000073	0	0.63100E-05	473043.3	3756082.3	471.3	3.50	4.00	1.63	YES	NO
L0000074	0	0.63100E-05	473034.8	3756083.6	471.1	3.50	4.00	1.63	YES	NO
L0000075	0	0.63100E-05	473026.3	3756085.0	470.9	3.50	4.00	1.63	YES	NO
L0000076	0	0.63100E-05	473017.8	3756086.3	470.7	3.50	4.00	1.63	YES	NO
L0000077	0	0.63100E-05	473009.3	3756087.7	470.5	3.50	4.00	1.63	YES	NO
L0000078	0	0.63100E-05	473000.8	3756089.1	470.2	3.50	4.00	1.63	YES	NO
L0000079	0	0.63100E-05	472992.4	3756090.5	470.0	3.50	4.00	1.63	YES	NO
L0000080	0	0.63100E-05	472983.9	3756091.9	469.7	3.50	4.00	1.63	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	AIRCRAFT
L0000081	0	0.63100E-05	472975.4	3756093.3	469.5	3.50	4.00	1.63	YES		NO
L0000082	0	0.63100E-05	472966.9	3756094.7	469.2	3.50	4.00	1.63	YES		NO

L0000083	0	0.63100E-05	472958.5	3756096.4	469.0	3.50	4.00	1.63	YES	NO
L0000084	0	0.63100E-05	472950.1	3756098.1	468.8	3.50	4.00	1.63	YES	NO
L0000085	0	0.63100E-05	472941.7	3756099.8	468.6	3.50	4.00	1.63	YES	NO
L0000086	0	0.63100E-05	472933.3	3756101.6	468.3	3.50	4.00	1.63	YES	NO
L0000087	0	0.63100E-05	472924.9	3756103.3	468.1	3.50	4.00	1.63	YES	NO
L0000088	0	0.63100E-05	472916.5	3756105.2	467.9	3.50	4.00	1.63	YES	NO
L0000089	0	0.63100E-05	472908.1	3756107.3	467.7	3.50	4.00	1.63	YES	NO
L0000090	0	0.63100E-05	472899.8	3756109.3	467.5	3.50	4.00	1.63	YES	NO
L0000091	0	0.63100E-05	472891.5	3756111.3	467.4	3.50	4.00	1.63	YES	NO
L0000092	0	0.63100E-05	472883.1	3756113.4	467.6	3.50	4.00	1.63	YES	NO
L0000093	0	0.63100E-05	472874.8	3756115.4	467.6	3.50	4.00	1.63	YES	NO
L0000094	0	0.63100E-05	472866.5	3756117.6	467.7	3.50	4.00	1.63	YES	NO
L0000095	0	0.63100E-05	472858.2	3756119.9	467.8	3.50	4.00	1.63	YES	NO
L0000096	0	0.63100E-05	472849.9	3756122.1	467.6	3.50	4.00	1.63	YES	NO
L0000097	0	0.63100E-05	472841.6	3756124.3	467.1	3.50	4.00	1.63	YES	NO
L0000098	0	0.63100E-05	472833.3	3756126.5	466.6	3.50	4.00	1.63	YES	NO
L0000099	0	0.63100E-05	472825.0	3756128.8	466.1	3.50	4.00	1.63	YES	NO
L0000100	0	0.63100E-05	472816.8	3756131.4	465.8	3.50	4.00	1.63	YES	NO
L0000101	0	0.63100E-05	472808.6	3756134.0	465.5	3.50	4.00	1.63	YES	NO
L0000102	0	0.63100E-05	472800.5	3756136.7	465.2	3.50	4.00	1.63	YES	NO
L0000103	0	0.63100E-05	472792.4	3756139.7	464.9	3.50	4.00	1.63	YES	NO
L0000104	0	0.63100E-05	472784.4	3756142.8	464.6	3.50	4.00	1.63	YES	NO
L0000105	0	0.63100E-05	472776.3	3756145.8	464.4	3.50	4.00	1.63	YES	NO
L0000106	0	0.63100E-05	472768.3	3756148.8	464.2	3.50	4.00	1.63	YES	NO
L0000107	0	0.63100E-05	472760.3	3756152.0	464.1	3.50	4.00	1.63	YES	NO
L0000108	0	0.63100E-05	472752.4	3756155.2	463.9	3.50	4.00	1.63	YES	NO
L0000109	0	0.63100E-05	472744.4	3756158.5	463.7	3.50	4.00	1.63	YES	NO
L0000110	0	0.63100E-05	472736.4	3756161.7	463.6	3.50	4.00	1.63	YES	NO
L0000111	0	0.63100E-05	472728.5	3756164.9	463.4	3.50	4.00	1.63	YES	NO
L0000112	0	0.63100E-05	472720.5	3756168.2	463.2	3.50	4.00	1.63	YES	NO
L0000113	0	0.63100E-05	472712.6	3756171.4	463.0	3.50	4.00	1.63	YES	NO
L0000114	0	0.63100E-05	472704.6	3756174.6	462.8	3.50	4.00	1.63	YES	NO
L0000115	0	0.63100E-05	472696.6	3756177.9	462.6	3.50	4.00	1.63	YES	NO
L0000116	0	0.63100E-05	472688.7	3756181.1	462.5	3.50	4.00	1.63	YES	NO
L0000117	0	0.63100E-05	472680.7	3756184.3	462.3	3.50	4.00	1.63	YES	NO
L0000118	0	0.63100E-05	472672.8	3756187.5	462.1	3.50	4.00	1.63	YES	NO
L0000119	0	0.63100E-05	472664.8	3756190.8	462.0	3.50	4.00	1.63	YES	NO
L0000120	0	0.63100E-05	472656.9	3756194.1	461.8	3.50	4.00	1.63	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	AIRCRAFT

L0000121	0	0.63100E-05	472648.9	3756197.4	461.7	3.50	4.00	1.63	YES	NO
L0000122	0	0.63100E-05	472641.0	3756200.7	461.6	3.50	4.00	1.63	YES	NO
L0000123	0	0.63100E-05	472633.1	3756204.0	461.4	3.50	4.00	1.63	YES	NO
L0000124	0	0.63100E-05	472625.2	3756207.3	461.2	3.50	4.00	1.63	YES	NO
L0000125	0	0.63100E-05	472617.2	3756210.5	461.1	3.50	4.00	1.63	YES	NO
L0000126	0	0.63100E-05	472609.2	3756213.7	461.0	3.50	4.00	1.63	YES	NO
L0000127	0	0.63100E-05	472601.2	3756216.8	460.9	3.50	4.00	1.63	YES	NO
L0000128	0	0.63100E-05	472593.2	3756219.9	460.8	3.50	4.00	1.63	YES	NO
L0000129	0	0.63100E-05	472585.2	3756223.1	460.8	3.50	4.00	1.63	YES	NO
L0000130	0	0.63100E-05	472577.2	3756226.3	460.7	3.50	4.00	1.63	YES	NO
L0000131	0	0.63100E-05	472569.3	3756229.6	460.6	3.50	4.00	1.63	YES	NO
L0000132	0	0.63100E-05	472561.4	3756232.9	460.6	3.50	4.00	1.63	YES	NO
L0000133	0	0.63100E-05	472553.5	3756236.2	460.5	3.50	4.00	1.63	YES	NO
L0000134	0	0.63100E-05	472545.5	3756239.5	460.4	3.50	4.00	1.63	YES	NO
L0000135	0	0.63100E-05	472537.6	3756242.8	460.4	3.50	4.00	1.63	YES	NO
L0000136	0	0.63100E-05	472529.6	3756246.0	460.4	3.50	4.00	1.63	YES	NO
L0000137	0	0.63100E-05	472521.7	3756249.3	460.4	3.50	4.00	1.63	YES	NO
L0000138	0	0.63100E-05	472513.8	3756252.8	460.0	3.50	4.00	1.63	YES	NO
L0000139	0	0.63100E-05	472506.0	3756256.4	459.7	3.50	4.00	1.63	YES	NO
L0000140	0	0.63100E-05	472498.2	3756259.9	459.5	3.50	4.00	1.63	YES	NO
L0000141	0	0.63100E-05	472490.4	3756263.5	458.4	3.50	4.00	1.63	YES	NO
L0000142	0	0.63100E-05	472482.6	3756267.0	456.9	3.50	4.00	1.63	YES	NO
L0000143	0	0.63100E-05	472474.7	3756270.6	455.2	3.50	4.00	1.63	YES	NO
L0000144	0	0.63100E-05	472467.0	3756274.3	454.9	3.50	4.00	1.63	YES	NO
L0000145	0	0.63100E-05	472459.2	3756277.9	455.7	3.50	4.00	1.63	YES	NO
L0000146	0	0.63100E-05	472451.4	3756281.6	456.2	3.50	4.00	1.63	YES	NO
L0000147	0	0.63100E-05	472443.7	3756285.3	456.6	3.50	4.00	1.63	YES	NO
L0000148	0	0.63100E-05	472435.9	3756289.0	457.5	3.50	4.00	1.63	YES	NO
L0000149	0	0.63100E-05	472428.1	3756292.6	458.5	3.50	4.00	1.63	YES	NO
L0000150	0	0.63100E-05	472420.5	3756296.6	459.8	3.50	4.00	1.63	YES	NO
L0000151	0	0.63100E-05	472412.9	3756300.6	459.9	3.50	4.00	1.63	YES	NO
L0000152	0	0.63100E-05	472405.3	3756304.6	460.0	3.50	4.00	1.63	YES	NO
L0000153	0	0.63100E-05	472397.7	3756308.7	460.1	3.50	4.00	1.63	YES	NO
L0000154	0	0.63100E-05	472390.2	3756312.7	460.2	3.50	4.00	1.63	YES	NO
L0000155	0	0.63100E-05	472382.6	3756316.8	460.0	3.50	4.00	1.63	YES	NO
L0000156	0	0.63100E-05	472375.1	3756321.0	459.8	3.50	4.00	1.63	YES	NO
L0000157	0	0.63100E-05	472367.6	3756325.2	459.6	3.50	4.00	1.63	YES	NO
L0000158	0	0.63100E-05	472360.2	3756329.5	459.4	3.50	4.00	1.63	YES	NO
L0000159	0	0.63100E-05	472352.7	3756333.7	459.4	3.50	4.00	1.63	YES	NO
L0000160	0	0.63100E-05	472345.2	3756337.9	459.3	3.50	4.00	1.63	YES	NO

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE	AIRCRAFT

SOURCE ID	PART. CATS.	(GRAMS/SEC)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE	SCALAR VARY BY	
L0000161	0	0.63100E-05	472337.9	3756342.3	459.2	3.50	4.00	1.63	YES		NO
L0000162	0	0.63100E-05	472330.5	3756346.8	459.0	3.50	4.00	1.63	YES		NO
L0000163	0	0.63100E-05	472323.2	3756351.3	458.8	3.50	4.00	1.63	YES		NO
L0000164	0	0.63100E-05	472315.9	3756355.8	458.5	3.50	4.00	1.63	YES		NO
L0000165	0	0.63100E-05	472308.5	3756360.3	458.3	3.50	4.00	1.63	YES		NO
L0000166	0	0.63100E-05	472301.2	3756364.7	458.3	3.50	4.00	1.63	YES		NO
L0000167	0	0.63100E-05	472293.9	3756369.2	458.1	3.50	4.00	1.63	YES		NO
L0000168	0	0.63100E-05	472286.8	3756374.0	458.0	3.50	4.00	1.63	YES		NO
L0000169	0	0.63100E-05	472279.9	3756379.1	457.8	3.50	4.00	1.63	YES		NO
L0000170	0	0.63100E-05	472272.9	3756384.2	457.5	3.50	4.00	1.63	YES		NO
L0000171	0	0.63100E-05	472266.0	3756389.3	457.2	3.50	4.00	1.63	YES		NO
L0000172	0	0.63100E-05	472259.1	3756394.5	457.1	3.50	4.00	1.63	YES		NO
L0000173	0	0.63100E-05	472252.2	3756399.6	456.9	3.50	4.00	1.63	YES		NO
L0000174	0	0.63100E-05	472245.3	3756404.7	456.8	3.50	4.00	1.63	YES		NO
L0000175	0	0.63100E-05	472238.4	3756409.8	456.6	3.50	4.00	1.63	YES		NO
L0000176	0	0.63100E-05	472231.5	3756414.9	456.2	3.50	4.00	1.63	YES		NO
L0000177	0	0.63100E-05	472224.6	3756420.0	455.8	3.50	4.00	1.63	YES		NO
L0000178	0	0.63100E-05	472217.7	3756425.1	455.5	3.50	4.00	1.63	YES		NO
L0000179	0	0.63100E-05	472210.9	3756430.3	455.4	3.50	4.00	1.63	YES		NO
L0000180	0	0.63100E-05	472204.4	3756436.0	455.2	3.50	4.00	1.63	YES		NO
L0000181	0	0.63100E-05	472198.0	3756441.7	454.8	3.50	4.00	1.63	YES		NO
L0000182	0	0.63100E-05	472191.6	3756447.5	454.2	3.50	4.00	1.63	YES		NO
L0000183	0	0.63100E-05	472185.2	3756453.2	453.8	3.50	4.00	1.63	YES		NO
L0000184	0	0.63100E-05	472178.8	3756458.9	453.9	3.50	4.00	1.63	YES		NO
L0000185	0	0.63100E-05	472172.4	3756464.6	453.7	3.50	4.00	1.63	YES		NO
L0000186	0	0.63100E-05	472166.0	3756470.3	453.3	3.50	4.00	1.63	YES		NO
L0000187	0	0.63100E-05	472159.6	3756476.1	452.9	3.50	4.00	1.63	YES		NO
L0000188	0	0.63100E-05	472163.5	3756424.5	454.3	3.50	4.00	1.63	YES		NO
L0000189	0	0.63100E-05	472170.0	3756418.9	454.6	3.50	4.00	1.63	YES		NO
L0000190	0	0.63100E-05	472176.6	3756413.3	454.9	3.50	4.00	1.63	YES		NO
L0000191	0	0.63100E-05	472183.1	3756407.7	455.2	3.50	4.00	1.63	YES		NO
L0000192	0	0.63100E-05	472189.6	3756402.1	455.6	3.50	4.00	1.63	YES		NO
L0000193	0	0.63100E-05	472196.1	3756396.5	455.9	3.50	4.00	1.63	YES		NO
L0000194	0	0.63100E-05	472202.6	3756390.9	456.2	3.50	4.00	1.63	YES		NO
L0000195	0	0.63100E-05	472209.1	3756385.3	456.6	3.50	4.00	1.63	YES		NO
L0000196	0	0.63100E-05	472215.6	3756379.7	456.9	3.50	4.00	1.63	YES		NO
L0000197	0	0.63100E-05	472222.4	3756374.4	457.2	3.50	4.00	1.63	YES		NO
L0000198	0	0.63100E-05	472229.2	3756369.2	457.5	3.50	4.00	1.63	YES		NO
L0000199	0	0.63100E-05	472236.0	3756363.9	457.8	3.50	4.00	1.63	YES		NO
L0000200	0	0.63100E-05	472242.8	3756358.7	458.1	3.50	4.00	1.63	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	AIRCRAFT
L0000201	0	0.63100E-05	472249.6	3756353.4	458.4	3.50	4.00	1.63	YES		NO
L0000202	0	0.63100E-05	472256.5	3756348.2	458.6	3.50	4.00	1.63	YES		NO
L0000203	0	0.63100E-05	472263.7	3756343.6	458.9	3.50	4.00	1.63	YES		NO
L0000204	0	0.63100E-05	472271.0	3756339.0	459.1	3.50	4.00	1.63	YES		NO
L0000205	0	0.63100E-05	472278.2	3756334.4	459.3	3.50	4.00	1.63	YES		NO
L0000206	0	0.63100E-05	472285.5	3756329.8	459.5	3.50	4.00	1.63	YES		NO
L0000207	0	0.63100E-05	472292.7	3756325.2	459.7	3.50	4.00	1.63	YES		NO
L0000208	0	0.63100E-05	472300.0	3756320.6	459.8	3.50	4.00	1.63	YES		NO
L0000209	0	0.63100E-05	472307.2	3756316.0	460.0	3.50	4.00	1.63	YES		NO
L0000210	0	0.63100E-05	472314.6	3756311.6	460.2	3.50	4.00	1.63	YES		NO
L0000211	0	0.63100E-05	472322.0	3756307.2	460.3	3.50	4.00	1.63	YES		NO
L0000212	0	0.63100E-05	472329.3	3756302.7	460.4	3.50	4.00	1.63	YES		NO
L0000213	0	0.63100E-05	472336.7	3756298.3	460.6	3.50	4.00	1.63	YES		NO
L0000214	0	0.63100E-05	472344.1	3756293.9	460.6	3.50	4.00	1.63	YES		NO
L0000215	0	0.63100E-05	472351.4	3756289.5	460.7	3.50	4.00	1.63	YES		NO
L0000216	0	0.63100E-05	472358.8	3756285.1	460.8	3.50	4.00	1.63	YES		NO
L0000217	0	0.63100E-05	472366.2	3756280.6	460.9	3.50	4.00	1.63	YES		NO
L0000218	0	0.63100E-05	472373.5	3756276.2	461.0	3.50	4.00	1.63	YES		NO
L0000219	0	0.63100E-05	472380.9	3756271.8	461.1	3.50	4.00	1.63	YES		NO
L0000220	0	0.63100E-05	472388.2	3756267.3	461.2	3.50	4.00	1.63	YES		NO
L0000221	0	0.63100E-05	472395.6	3756262.9	461.2	3.50	4.00	1.63	YES		NO
L0000222	0	0.63100E-05	472403.0	3756258.5	461.2	3.50	4.00	1.63	YES		NO
L0000223	0	0.63100E-05	472410.3	3756254.0	461.2	3.50	4.00	1.63	YES		NO
L0000224	0	0.63100E-05	472417.7	3756249.6	461.3	3.50	4.00	1.63	YES		NO
L0000225	0	0.63100E-05	472425.0	3756245.1	461.2	3.50	4.00	1.63	YES		NO
L0000226	0	0.63100E-05	472432.3	3756240.6	461.2	3.50	4.00	1.63	YES		NO
L0000227	0	0.63100E-05	472439.6	3756236.1	461.3	3.50	4.00	1.63	YES		NO
L0000228	0	0.63100E-05	472447.0	3756231.6	460.9	3.50	4.00	1.63	YES		NO
L0000229	0	0.63100E-05	472454.3	3756227.1	459.6	3.50	4.00	1.63	YES		NO
L0000230	0	0.63100E-05	472461.6	3756222.7	458.6	3.50	4.00	1.63	YES		NO
L0000231	0	0.63100E-05	472468.9	3756218.2	457.7	3.50	4.00	1.63	YES		NO
L0000232	0	0.63100E-05	472476.3	3756213.8	457.9	3.50	4.00	1.63	YES		NO
L0000233	0	0.63100E-05	472483.7	3756209.4	458.1	3.50	4.00	1.63	YES		NO
L0000234	0	0.63100E-05	472491.1	3756205.0	458.0	3.50	4.00	1.63	YES		NO
L0000235	0	0.63100E-05	472498.5	3756200.6	458.0	3.50	4.00	1.63	YES		NO
L0000236	0	0.63100E-05	472505.8	3756196.2	459.1	3.50	4.00	1.63	YES		NO
L0000237	0	0.63100E-05	472513.2	3756191.8	460.3	3.50	4.00	1.63	YES		NO
L0000238	0	0.63100E-05	472520.6	3756187.4	461.6	3.50	4.00	1.63	YES		NO
L0000239	0	0.63100E-05	472528.0	3756183.0	462.0	3.50	4.00	1.63	YES		NO
L0000240	0	0.63100E-05	472535.4	3756178.7	462.3	3.50	4.00	1.63	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	AIRCRAFT
L0000241	0	0.63100E-05	472542.8	3756174.3	462.7	3.50	4.00	1.63	YES		NO
L0000242	0	0.63100E-05	472550.2	3756169.9	462.9	3.50	4.00	1.63	YES		NO
L0000243	0	0.63100E-05	472557.6	3756165.6	462.9	3.50	4.00	1.63	YES		NO
L0000244	0	0.63100E-05	472565.0	3756161.2	463.0	3.50	4.00	1.63	YES		NO
L0000245	0	0.63100E-05	472572.4	3756156.9	463.1	3.50	4.00	1.63	YES		NO
L0000246	0	0.63100E-05	472579.8	3756152.5	463.2	3.50	4.00	1.63	YES		NO
L0000247	0	0.63100E-05	472587.3	3756148.3	463.4	3.50	4.00	1.63	YES		NO
L0000248	0	0.63100E-05	472594.8	3756144.1	463.7	3.50	4.00	1.63	YES		NO
L0000249	0	0.63100E-05	472602.3	3756139.9	463.8	3.50	4.00	1.63	YES		NO
L0000250	0	0.63100E-05	472609.8	3756135.7	463.8	3.50	4.00	1.63	YES		NO
L0000251	0	0.63100E-05	472617.3	3756131.5	463.9	3.50	4.00	1.63	YES		NO
L0000252	0	0.63100E-05	472624.8	3756127.3	464.1	3.50	4.00	1.63	YES		NO
L0000253	0	0.63100E-05	472632.3	3756123.1	464.3	3.50	4.00	1.63	YES		NO
L0000254	0	0.63100E-05	472639.8	3756118.9	464.6	3.50	4.00	1.63	YES		NO
L0000255	0	0.63100E-05	472647.2	3756114.6	464.9	3.50	4.00	1.63	YES		NO
L0000256	0	0.63100E-05	472654.6	3756110.3	465.1	3.50	4.00	1.63	YES		NO
L0000257	0	0.63100E-05	472662.1	3756106.0	465.2	3.50	4.00	1.63	YES		NO
L0000258	0	0.63100E-05	472669.5	3756101.7	465.4	3.50	4.00	1.63	YES		NO
L0000259	0	0.63100E-05	472677.0	3756097.4	465.6	3.50	4.00	1.63	YES		NO
L0000260	0	0.63100E-05	472684.4	3756093.1	465.9	3.50	4.00	1.63	YES		NO
L0000261	0	0.63100E-05	472691.8	3756088.8	466.2	3.50	4.00	1.63	YES		NO
L0000262	0	0.63100E-05	472699.5	3756085.0	466.5	3.50	4.00	1.63	YES		NO
L0000263	0	0.63100E-05	472707.3	3756081.3	466.8	3.50	4.00	1.63	YES		NO
L0000264	0	0.63100E-05	472715.0	3756077.6	466.9	3.50	4.00	1.63	YES		NO
L0000265	0	0.63100E-05	472722.8	3756073.9	467.1	3.50	4.00	1.63	YES		NO
L0000266	0	0.63100E-05	472730.4	3756069.9	467.3	3.50	4.00	1.63	YES		NO
L0000267	0	0.63100E-05	472738.0	3756065.8	467.6	3.50	4.00	1.63	YES		NO
L0000268	0	0.63100E-05	472745.5	3756061.8	467.9	3.50	4.00	1.63	YES		NO
L0000269	0	0.63100E-05	472753.1	3756057.8	468.2	3.50	4.00	1.63	YES		NO
L0000270	0	0.63100E-05	472760.9	3756054.0	468.5	3.50	4.00	1.63	YES		NO
L0000271	0	0.63100E-05	472768.7	3756050.5	468.8	3.50	4.00	1.63	YES		NO
L0000272	0	0.63100E-05	472776.5	3756047.0	469.0	3.50	4.00	1.63	YES		NO
L0000273	0	0.63100E-05	472784.4	3756043.5	469.2	3.50	4.00	1.63	YES		NO
L0000274	0	0.63100E-05	472792.5	3756040.6	469.5	3.50	4.00	1.63	YES		NO
L0000275	0	0.63100E-05	472800.6	3756037.7	469.7	3.50	4.00	1.63	YES		NO
L0000276	0	0.63100E-05	472808.7	3756034.9	469.9	3.50	4.00	1.63	YES		NO
L0000277	0	0.63100E-05	472816.8	3756032.0	470.0	3.50	4.00	1.63	YES		NO
L0000278	0	0.63100E-05	472824.9	3756029.2	470.2	3.50	4.00	1.63	YES		NO
L0000279	0	0.63100E-05	472833.0	3756026.5	470.4	3.50	4.00	1.63	YES		NO
L0000280	0	0.63100E-05	472841.2	3756023.8	470.6	3.50	4.00	1.63	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	AIRCRAFT
L0000281	0	0.63100E-05	472849.3	3756021.1	470.8	3.50	4.00	1.63	YES		NO
L0000282	0	0.63100E-05	472857.5	3756018.4	470.9	3.50	4.00	1.63	YES		NO
L0000283	0	0.63100E-05	472865.8	3756016.0	470.5	3.50	4.00	1.63	YES		NO
L0000284	0	0.63100E-05	472874.1	3756013.9	470.2	3.50	4.00	1.63	YES		NO
L0000285	0	0.63100E-05	472882.4	3756011.8	470.1	3.50	4.00	1.63	YES		NO
L0000286	0	0.63100E-05	472890.7	3756009.6	469.9	3.50	4.00	1.63	YES		NO
L0000287	0	0.63100E-05	472899.0	3756007.5	469.9	3.50	4.00	1.63	YES		NO
L0000288	0	0.63100E-05	472907.4	3756005.4	469.9	3.50	4.00	1.63	YES		NO
L0000289	0	0.63100E-05	472915.7	3756003.2	469.8	3.50	4.00	1.63	YES		NO
L0000290	0	0.63100E-05	472924.0	3756001.1	469.5	3.50	4.00	1.63	YES		NO
L0000291	0	0.63100E-05	472932.3	3755998.9	469.1	3.50	4.00	1.63	YES		NO
L0000292	0	0.63100E-05	472940.7	3755996.9	469.5	3.50	4.00	1.63	YES		NO
L0000293	0	0.63100E-05	472949.0	3755994.8	469.6	3.50	4.00	1.63	YES		NO
L0000294	0	0.63100E-05	472957.3	3755992.7	469.4	3.50	4.00	1.63	YES		NO
L0000295	0	0.63100E-05	472965.7	3755990.7	471.0	3.50	4.00	1.63	YES		NO
L0000296	0	0.63100E-05	472974.0	3755988.6	472.7	3.50	4.00	1.63	YES		NO
L0000297	0	0.63100E-05	472982.4	3755986.6	474.4	3.50	4.00	1.63	YES		NO
L0000298	0	0.63100E-05	472990.7	3755984.5	475.1	3.50	4.00	1.63	YES		NO
L0000299	0	0.63100E-05	472999.2	3755983.1	475.9	3.50	4.00	1.63	YES		NO
L0000300	0	0.63100E-05	473007.6	3755981.7	476.8	3.50	4.00	1.63	YES		NO
L0000301	0	0.63100E-05	473016.1	3755980.2	477.1	3.50	4.00	1.63	YES		NO
L0000302	0	0.63100E-05	473024.6	3755978.8	477.3	3.50	4.00	1.63	YES		NO
L0000303	0	0.63100E-05	473033.1	3755977.5	477.4	3.50	4.00	1.63	YES		NO
L0000304	0	0.63100E-05	473041.6	3755976.6	477.6	3.50	4.00	1.63	YES		NO
L0000305	0	0.63100E-05	473050.2	3755975.8	477.7	3.50	4.00	1.63	YES		NO
L0000306	0	0.63100E-05	473058.7	3755975.0	477.9	3.50	4.00	1.63	YES		NO
L0000307	0	0.63100E-05	473067.3	3755974.2	478.0	3.50	4.00	1.63	YES		NO
L0000308	0	0.63100E-05	473075.8	3755973.3	478.1	3.50	4.00	1.63	YES		NO
L0000309	0	0.63100E-05	473084.4	3755972.5	478.1	3.50	4.00	1.63	YES		NO
L0000310	0	0.63100E-05	473092.9	3755971.7	478.2	3.50	4.00	1.63	YES		NO
L0000311	0	0.63100E-05	473101.5	3755970.9	478.3	3.50	4.00	1.63	YES		NO
L0000312	0	0.63100E-05	473110.1	3755970.5	478.4	3.50	4.00	1.63	YES		NO
L0000313	0	0.63100E-05	473118.6	3755970.4	478.4	3.50	4.00	1.63	YES		NO
L0000314	0	0.63100E-05	473127.2	3755970.3	478.5	3.50	4.00	1.63	YES		NO
L0000315	0	0.63100E-05	473135.8	3755970.2	478.6	3.50	4.00	1.63	YES		NO
L0000316	0	0.63100E-05	473144.4	3755970.1	478.6	3.50	4.00	1.63	YES		NO
L0000317	0	0.63100E-05	473153.0	3755970.0	478.6	3.50	4.00	1.63	YES		NO
L0000318	0	0.63100E-05	473161.6	3755969.9	478.7	3.50	4.00	1.63	YES		NO

L0000319	0	0.63100E-05	473170.2	3755969.9	478.7	3.50	4.00	1.63	YES	NO
L0000320	0	0.63100E-05	473178.8	3755970.0	478.7	3.50	4.00	1.63	YES	NO

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

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L0000321	0	0.63100E-05	473187.4	3755970.1	478.7	3.50	4.00	1.63	YES		NO
L0000322	0	0.63100E-05	473196.0	3755970.1	478.7	3.50	4.00	1.63	YES		NO
L0000323	0	0.63100E-05	473204.6	3755970.2	478.7	3.50	4.00	1.63	YES		NO
L0000324	0	0.63100E-05	473213.1	3755970.2	478.8	3.50	4.00	1.63	YES		NO
L0000325	0	0.63100E-05	473221.7	3755970.3	478.8	3.50	4.00	1.63	YES		NO
L0000326	0	0.63100E-05	473230.3	3755970.4	478.8	3.50	4.00	1.63	YES		NO
L0000327	0	0.63100E-05	473238.9	3755970.4	478.8	3.50	4.00	1.63	YES		NO
L0000328	0	0.63100E-05	473247.5	3755970.5	478.9	3.50	4.00	1.63	YES		NO
L0000329	0	0.63100E-05	473256.1	3755970.5	478.9	3.50	4.00	1.63	YES		NO
L0000330	0	0.63100E-05	473264.7	3755970.6	479.0	3.50	4.00	1.63	YES		NO
L0000331	0	0.63100E-05	473273.3	3755970.9	479.1	3.50	4.00	1.63	YES		NO
L0000332	0	0.63100E-05	473281.9	3755971.1	479.2	3.50	4.00	1.63	YES		NO
L0000333	0	0.63100E-05	473290.4	3755971.3	479.3	3.50	4.00	1.63	YES		NO
L0000334	0	0.63100E-05	473299.0	3755971.6	479.4	3.50	4.00	1.63	YES		NO
L0000335	0	0.63100E-05	473307.6	3755971.8	479.5	3.50	4.00	1.63	YES		NO
L0000336	0	0.63100E-05	473316.2	3755972.0	479.7	3.50	4.00	1.63	YES		NO
L0000337	0	0.63100E-05	473324.8	3755972.1	479.8	3.50	4.00	1.63	YES		NO
L0000338	0	0.63100E-05	473333.4	3755972.1	480.0	3.50	4.00	1.63	YES		NO
L0000339	0	0.63100E-05	473342.0	3755972.2	480.2	3.50	4.00	1.63	YES		NO
L0000340	0	0.63100E-05	473350.6	3755972.3	480.4	3.50	4.00	1.63	YES		NO
L0000341	0	0.63100E-05	473359.2	3755972.4	480.6	3.50	4.00	1.63	YES		NO
L0000342	0	0.63100E-05	473367.8	3755972.4	480.8	3.50	4.00	1.63	YES		NO
L0000343	0	0.63100E-05	473376.3	3755972.5	481.1	3.50	4.00	1.63	YES		NO
L0000344	0	0.63100E-05	473384.9	3755972.6	481.3	3.50	4.00	1.63	YES		NO
L0000345	0	0.63100E-05	473393.5	3755972.6	481.6	3.50	4.00	1.63	YES		NO
L0000346	0	0.63100E-05	473402.1	3755972.7	481.9	3.50	4.00	1.63	YES		NO
L0000347	0	0.63100E-05	473410.7	3755972.7	482.2	3.50	4.00	1.63	YES		NO
L0000348	0	0.63100E-05	473419.3	3755972.7	482.4	3.50	4.00	1.63	YES		NO
L0000349	0	0.63100E-05	473427.9	3755972.3	482.7	3.50	4.00	1.63	YES		NO
L0000350	0	0.63100E-05	473436.5	3755971.9	483.0	3.50	4.00	1.63	YES		NO
L0000351	0	0.63100E-05	473445.0	3755971.4	483.3	3.50	4.00	1.63	YES		NO
L0000352	0	0.63100E-05	473453.6	3755970.8	483.6	3.50	4.00	1.63	YES		NO
L0000353	0	0.63100E-05	473462.2	3755970.1	483.8	3.50	4.00	1.63	YES		NO
L0000354	0	0.63100E-05	473470.7	3755969.4	484.1	3.50	4.00	1.63	YES		NO
L0000355	0	0.63100E-05	473479.3	3755968.7	484.4	3.50	4.00	1.63	YES		NO

L0000356	0	0.63100E-05	473487.8	3755967.9	484.7	3.50	4.00	1.63	YES	NO
L0000357	0	0.63100E-05	473496.4	3755967.2	485.0	3.50	4.00	1.63	YES	NO
L0000358	0	0.63100E-05	473505.0	3755966.5	485.3	3.50	4.00	1.63	YES	NO
L0000359	0	0.63100E-05	473513.5	3755965.4	485.7	3.50	4.00	1.63	YES	NO
L0000360	0	0.63100E-05	473522.0	3755964.3	486.0	3.50	4.00	1.63	YES	NO

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

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L0000361	0	0.63100E-05	473530.5	3755963.0	486.3	3.50	4.00	1.63	YES		NO
L0000362	0	0.63100E-05	473539.0	3755961.7	486.6	3.50	4.00	1.63	YES		NO
L0000363	0	0.63100E-05	473547.5	3755960.3	487.0	3.50	4.00	1.63	YES		NO
L0000364	0	0.63100E-05	473555.9	3755958.5	487.3	3.50	4.00	1.63	YES		NO
L0000365	0	0.63100E-05	473564.3	3755956.8	487.7	3.50	4.00	1.63	YES		NO
L0000366	0	0.63100E-05	473572.7	3755955.0	488.0	3.50	4.00	1.63	YES		NO
L0000367	0	0.63100E-05	473581.1	3755953.3	488.2	3.50	4.00	1.63	YES		NO
L0000368	0	0.63100E-05	473589.5	3755951.7	488.5	3.50	4.00	1.63	YES		NO
L0000369	0	0.63100E-05	473598.0	3755950.0	488.9	3.50	4.00	1.63	YES		NO
L0000370	0	0.63100E-05	473606.4	3755948.4	489.2	3.50	4.00	1.63	YES		NO
L0000371	0	0.63100E-05	473614.8	3755946.8	489.6	3.50	4.00	1.63	YES		NO
L0000372	0	0.63100E-05	473623.3	3755945.1	489.9	3.50	4.00	1.63	YES		NO
L0000373	0	0.63100E-05	473631.7	3755943.3	490.2	3.50	4.00	1.63	YES		NO
L0000374	0	0.63100E-05	473640.1	3755941.6	490.5	3.50	4.00	1.63	YES		NO
L0000375	0	0.89860E-05	472162.1	3756406.8	454.9	3.50	4.00	1.63	YES		NO
L0000376	0	0.89860E-05	472168.2	3756400.7	455.2	3.50	4.00	1.63	YES		NO
L0000377	0	0.89860E-05	472174.3	3756394.7	455.6	3.50	4.00	1.63	YES		NO
L0000378	0	0.89860E-05	472180.4	3756388.6	455.9	3.50	4.00	1.63	YES		NO
L0000379	0	0.89860E-05	472186.5	3756382.6	456.3	3.50	4.00	1.63	YES		NO
L0000380	0	0.89860E-05	472192.6	3756376.5	456.6	3.50	4.00	1.63	YES		NO
L0000381	0	0.89860E-05	472198.7	3756370.5	457.0	3.50	4.00	1.63	YES		NO
L0000382	0	0.89860E-05	472205.2	3756364.9	457.4	3.50	4.00	1.63	YES		NO
L0000383	0	0.89860E-05	472211.7	3756359.3	457.8	3.50	4.00	1.63	YES		NO
L0000384	0	0.89860E-05	472218.2	3756353.6	458.1	3.50	4.00	1.63	YES		NO
L0000385	0	0.89860E-05	472224.9	3756348.2	458.3	3.50	4.00	1.63	YES		NO
L0000386	0	0.89860E-05	472231.6	3756342.9	458.7	3.50	4.00	1.63	YES		NO
L0000387	0	0.89860E-05	472238.4	3756337.6	459.0	3.50	4.00	1.63	YES		NO
L0000388	0	0.89860E-05	472245.2	3756332.3	459.3	3.50	4.00	1.63	YES		NO
L0000389	0	0.89860E-05	472251.9	3756327.0	459.5	3.50	4.00	1.63	YES		NO
L0000390	0	0.89860E-05	472258.8	3756321.9	459.7	3.50	4.00	1.63	YES		NO
L0000391	0	0.89860E-05	472265.7	3756316.8	460.0	3.50	4.00	1.63	YES		NO
L0000392	0	0.89860E-05	472272.6	3756311.7	460.2	3.50	4.00	1.63	YES		NO

L0000393	0	0.89860E-05	472279.5	3756306.5	460.4	3.50	4.00	1.63	YES	NO
L0000394	0	0.89860E-05	472286.5	3756301.6	460.7	3.50	4.00	1.63	YES	NO
L0000395	0	0.89860E-05	472293.6	3756296.6	460.9	3.50	4.00	1.63	YES	NO
L0000396	0	0.89860E-05	472300.6	3756291.7	461.0	3.50	4.00	1.63	YES	NO
L0000397	0	0.89860E-05	472307.6	3756286.8	461.1	3.50	4.00	1.63	YES	NO
L0000398	0	0.89860E-05	472314.6	3756281.8	461.2	3.50	4.00	1.63	YES	NO
L0000399	0	0.89860E-05	472321.8	3756277.1	461.3	3.50	4.00	1.63	YES	NO
L0000400	0	0.89860E-05	472329.1	3756272.6	461.4	3.50	4.00	1.63	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	AIRCRAFT
L0000401	0	0.89860E-05	472336.4	3756268.0	461.5	3.50	4.00	1.63	YES		NO
L0000402	0	0.89860E-05	472343.7	3756263.5	461.5	3.50	4.00	1.63	YES		NO
L0000403	0	0.89860E-05	472351.0	3756258.9	461.5	3.50	4.00	1.63	YES		NO
L0000404	0	0.89860E-05	472358.3	3756254.4	461.4	3.50	4.00	1.63	YES		NO
L0000405	0	0.89860E-05	472365.6	3756249.8	461.4	3.50	4.00	1.63	YES		NO
L0000406	0	0.89860E-05	472372.9	3756245.3	461.4	3.50	4.00	1.63	YES		NO
L0000407	0	0.89860E-05	472380.2	3756240.8	461.4	3.50	4.00	1.63	YES		NO
L0000408	0	0.89860E-05	472387.5	3756236.3	461.5	3.50	4.00	1.63	YES		NO
L0000409	0	0.89860E-05	472394.8	3756231.7	461.5	3.50	4.00	1.63	YES		NO
L0000410	0	0.89860E-05	472402.1	3756227.2	461.5	3.50	4.00	1.63	YES		NO
L0000411	0	0.89860E-05	472409.4	3756222.7	461.5	3.50	4.00	1.63	YES		NO
L0000412	0	0.89860E-05	472416.7	3756218.2	461.5	3.50	4.00	1.63	YES		NO
L0000413	0	0.89860E-05	472424.0	3756213.6	461.5	3.50	4.00	1.63	YES		NO
L0000414	0	0.89860E-05	472431.3	3756209.1	461.6	3.50	4.00	1.63	YES		NO
L0000415	0	0.89860E-05	472438.6	3756204.6	461.7	3.50	4.00	1.63	YES		NO
L0000416	0	0.89860E-05	472445.8	3756200.0	461.6	3.50	4.00	1.63	YES		NO
L0000417	0	0.89860E-05	472453.0	3756195.2	460.8	3.50	4.00	1.63	YES		NO
L0000418	0	0.89860E-05	472460.1	3756190.4	460.1	3.50	4.00	1.63	YES		NO
L0000419	0	0.89860E-05	472467.2	3756185.6	459.5	3.50	4.00	1.63	YES		NO
L0000420	0	0.89860E-05	472474.4	3756180.8	459.0	3.50	4.00	1.63	YES		NO
L0000421	0	0.89860E-05	472481.4	3756175.9	458.4	3.50	4.00	1.63	YES		NO
L0000422	0	0.89860E-05	472488.5	3756171.0	457.5	3.50	4.00	1.63	YES		NO
L0000423	0	0.89860E-05	472495.5	3756166.1	456.7	3.50	4.00	1.63	YES		NO
L0000424	0	0.89860E-05	472502.5	3756161.2	457.9	3.50	4.00	1.63	YES		NO
L0000425	0	0.89860E-05	472509.6	3756156.2	459.2	3.50	4.00	1.63	YES		NO
L0000426	0	0.89860E-05	472516.6	3756151.3	460.6	3.50	4.00	1.63	YES		NO
L0000427	0	0.89860E-05	472523.7	3756146.4	461.7	3.50	4.00	1.63	YES		NO
L0000428	0	0.89860E-05	472530.7	3756141.4	462.1	3.50	4.00	1.63	YES		NO
L0000429	0	0.89860E-05	472537.7	3756136.5	462.8	3.50	4.00	1.63	YES		NO

L0000430	0	0.89860E-05	472544.8	3756131.6	463.5	3.50	4.00	1.63	YES	NO
L0000431	0	0.89860E-05	472551.8	3756126.7	463.9	3.50	4.00	1.63	YES	NO
L0000432	0	0.89860E-05	472558.9	3756121.7	464.1	3.50	4.00	1.63	YES	NO
L0000433	0	0.89860E-05	472565.9	3756116.8	464.3	3.50	4.00	1.63	YES	NO
L0000434	0	0.89860E-05	472572.9	3756111.9	464.3	3.50	4.00	1.63	YES	NO
L0000435	0	0.89860E-05	472580.0	3756107.0	464.2	3.50	4.00	1.63	YES	NO
L0000436	0	0.89860E-05	472587.0	3756102.0	464.3	3.50	4.00	1.63	YES	NO
L0000437	0	0.89860E-05	472593.9	3756096.9	464.6	3.50	4.00	1.63	YES	NO
L0000438	0	0.89860E-05	472600.7	3756091.7	465.1	3.50	4.00	1.63	YES	NO
L0000439	0	0.89860E-05	472607.6	3756086.5	465.3	3.50	4.00	1.63	YES	NO
L0000440	0	0.89860E-05	472614.4	3756081.3	465.4	3.50	4.00	1.63	YES	NO

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*** VOLUME SOURCE DATA ***

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L0000441	0	0.89860E-05	472621.2	3756076.1	465.4	3.50	4.00	1.63	YES		NO
L0000442	0	0.89860E-05	472628.0	3756070.8	465.7	3.50	4.00	1.63	YES		NO
L0000443	0	0.89860E-05	472634.9	3756065.6	466.1	3.50	4.00	1.63	YES		NO
L0000444	0	0.89860E-05	472641.7	3756060.4	466.6	3.50	4.00	1.63	YES		NO
L0000445	0	0.89860E-05	472648.5	3756055.1	467.1	3.50	4.00	1.63	YES		NO
L0000446	0	0.89860E-05	472655.3	3756049.9	467.3	3.50	4.00	1.63	YES		NO
L0000447	0	0.89860E-05	472662.1	3756044.7	467.3	3.50	4.00	1.63	YES		NO
L0000448	0	0.89860E-05	472668.9	3756039.4	467.6	3.50	4.00	1.63	YES		NO
L0000449	0	0.89860E-05	472675.7	3756034.2	468.0	3.50	4.00	1.63	YES		NO
L0000450	0	0.89860E-05	472682.5	3756028.9	468.3	3.50	4.00	1.63	YES		NO
L0000451	0	0.89860E-05	472689.2	3756023.5	468.6	3.50	4.00	1.63	YES		NO
L0000452	0	0.89860E-05	472695.7	3756017.9	468.8	3.50	4.00	1.63	YES		NO
L0000453	0	0.89860E-05	472702.2	3756012.3	469.0	3.50	4.00	1.63	YES		NO
L0000454	0	0.89860E-05	472708.8	3756006.8	469.2	3.50	4.00	1.63	YES		NO
L0000455	0	0.89860E-05	472715.3	3756001.2	469.5	3.50	4.00	1.63	YES		NO
L0000456	0	0.89860E-05	472721.8	3755995.6	469.9	3.50	4.00	1.63	YES		NO
L0000457	0	0.89860E-05	472728.3	3755990.0	470.4	3.50	4.00	1.63	YES		NO
L0000458	0	0.89860E-05	472734.9	3755984.4	470.3	3.50	4.00	1.63	YES		NO
L0000459	0	0.89860E-05	472741.4	3755978.9	470.4	3.50	4.00	1.63	YES		NO
L0000460	0	0.89860E-05	472747.9	3755973.3	470.8	3.50	4.00	1.63	YES		NO
L0000461	0	0.89860E-05	472754.5	3755967.7	471.3	3.50	4.00	1.63	YES		NO
L0000462	0	0.89860E-05	472761.0	3755962.1	471.7	3.50	4.00	1.63	YES		NO
L0000463	0	0.89860E-05	472767.5	3755956.5	472.0	3.50	4.00	1.63	YES		NO
L0000464	0	0.89860E-05	472774.1	3755951.0	472.2	3.50	4.00	1.63	YES		NO
L0000465	0	0.89860E-05	472780.4	3755945.2	472.7	3.50	4.00	1.63	YES		NO
L0000466	0	0.89860E-05	472786.6	3755939.2	473.3	3.50	4.00	1.63	YES		NO

L0000467	0	0.89860E-05	472792.7	3755933.1	473.8	3.50	4.00	1.63	YES	NO
L0000468	0	0.89860E-05	472798.8	3755927.1	474.2	3.50	4.00	1.63	YES	NO
L0000469	0	0.89860E-05	472804.9	3755921.1	474.4	3.50	4.00	1.63	YES	NO
L0000470	0	0.89860E-05	472810.8	3755914.8	474.6	3.50	4.00	1.63	YES	NO
L0000471	0	0.89860E-05	472816.6	3755908.5	474.8	3.50	4.00	1.63	YES	NO
L0000472	0	0.89860E-05	472822.4	3755902.2	475.1	3.50	4.00	1.63	YES	NO
L0000473	0	0.89860E-05	472828.2	3755895.8	475.5	3.50	4.00	1.63	YES	NO
L0000474	0	0.89860E-05	472834.0	3755889.5	475.4	3.50	4.00	1.63	YES	NO
L0000475	0	0.89860E-05	472839.8	3755883.1	475.4	3.50	4.00	1.63	YES	NO
L0000476	0	0.89860E-05	472845.6	3755876.8	475.7	3.50	4.00	1.63	YES	NO
L0000477	0	0.89860E-05	472851.4	3755870.5	476.1	3.50	4.00	1.63	YES	NO
L0000478	0	0.89860E-05	472857.4	3755864.3	476.4	3.50	4.00	1.63	YES	NO
L0000479	0	0.89860E-05	472863.4	3755858.2	475.8	3.50	4.00	1.63	YES	NO
L0000480	0	0.89860E-05	472869.5	3755852.1	475.5	3.50	4.00	1.63	YES	NO

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*** VOLUME SOURCE DATA ***

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L0000481	0	0.89860E-05	472875.5	3755845.9	475.4	3.50	4.00	1.63	YES		NO
L0000482	0	0.89860E-05	472881.5	3755839.8	475.2	3.50	4.00	1.63	YES		NO
L0000483	0	0.89860E-05	472887.5	3755833.7	474.3	3.50	4.00	1.63	YES		NO
L0000484	0	0.89860E-05	472893.7	3755827.8	473.4	3.50	4.00	1.63	YES		NO
L0000485	0	0.89860E-05	472899.9	3755821.8	473.1	3.50	4.00	1.63	YES		NO
L0000486	0	0.89860E-05	472906.1	3755815.9	473.3	3.50	4.00	1.63	YES		NO
L0000487	0	0.89860E-05	472912.3	3755809.9	473.2	3.50	4.00	1.63	YES		NO
L0000488	0	0.89860E-05	472918.6	3755804.0	472.9	3.50	4.00	1.63	YES		NO
L0000489	0	0.89860E-05	472924.8	3755798.1	472.4	3.50	4.00	1.63	YES		NO
L0000490	0	0.89860E-05	472930.9	3755792.0	472.4	3.50	4.00	1.63	YES		NO
L0000491	0	0.89860E-05	472936.6	3755785.6	472.6	3.50	4.00	1.63	YES		NO
L0000492	0	0.89860E-05	472942.4	3755779.2	472.6	3.50	4.00	1.63	YES		NO
L0000493	0	0.89860E-05	472948.1	3755772.8	472.5	3.50	4.00	1.63	YES		NO
L0000494	0	0.89860E-05	472953.8	3755766.5	472.0	3.50	4.00	1.63	YES		NO
L0000495	0	0.89860E-05	472959.6	3755760.1	472.0	3.50	4.00	1.63	YES		NO
L0000496	0	0.89860E-05	472965.3	3755753.7	471.9	3.50	4.00	1.63	YES		NO
L0000497	0	0.89860E-05	472970.4	3755746.8	471.9	3.50	4.00	1.63	YES		NO
L0000498	0	0.89860E-05	472975.3	3755739.7	471.7	3.50	4.00	1.63	YES		NO
L0000499	0	0.89860E-05	472980.2	3755732.7	471.5	3.50	4.00	1.63	YES		NO
L0000500	0	0.89860E-05	472985.1	3755725.6	471.5	3.50	4.00	1.63	YES		NO
L0000501	0	0.89860E-05	472990.0	3755718.5	471.4	3.50	4.00	1.63	YES		NO
L0000502	0	0.89860E-05	472994.9	3755711.5	471.2	3.50	4.00	1.63	YES		NO
L0000503	0	0.89860E-05	472999.0	3755704.0	470.9	3.50	4.00	1.63	YES		NO

L0000504	0	0.89860E-05	473002.2	3755696.0	470.8	3.50	4.00	1.63	YES	NO
L0000505	0	0.89860E-05	473005.4	3755688.0	470.8	3.50	4.00	1.63	YES	NO
L0000506	0	0.89860E-05	473008.5	3755680.1	470.9	3.50	4.00	1.63	YES	NO
L0000507	0	0.89860E-05	473011.7	3755672.1	470.7	3.50	4.00	1.63	YES	NO
L0000508	0	0.89860E-05	473014.6	3755664.0	470.6	3.50	4.00	1.63	YES	NO
L0000509	0	0.89860E-05	473017.2	3755655.8	470.4	3.50	4.00	1.63	YES	NO
L0000510	0	0.89860E-05	473019.8	3755647.6	470.3	3.50	4.00	1.63	YES	NO
L0000511	0	0.89860E-05	473022.3	3755639.4	470.2	3.50	4.00	1.63	YES	NO
L0000512	0	0.89860E-05	473024.9	3755631.2	470.2	3.50	4.00	1.63	YES	NO
L0000513	0	0.89540E-05	473072.6	3755636.3	470.8	3.50	4.00	1.63	YES	NO
L0000514	0	0.89540E-05	473071.1	3755644.8	470.8	3.50	4.00	1.63	YES	NO
L0000515	0	0.89540E-05	473069.5	3755653.2	470.8	3.50	4.00	1.63	YES	NO
L0000516	0	0.89540E-05	473068.0	3755661.7	470.8	3.50	4.00	1.63	YES	NO
L0000517	0	0.89540E-05	473066.4	3755670.1	470.8	3.50	4.00	1.63	YES	NO
L0000518	0	0.89540E-05	473064.9	3755678.6	470.8	3.50	4.00	1.63	YES	NO
L0000519	0	0.89540E-05	473063.3	3755687.0	470.8	3.50	4.00	1.63	YES	NO
L0000520	0	0.89540E-05	473061.8	3755695.5	470.7	3.50	4.00	1.63	YES	NO

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L0000521	0	0.89540E-05	473060.2	3755703.9	470.7	3.50	4.00	1.63	YES		NO
L0000522	0	0.89540E-05	473058.5	3755712.3	470.6	3.50	4.00	1.63	YES		NO
L0000523	0	0.89540E-05	473056.7	3755720.7	470.7	3.50	4.00	1.63	YES		NO
L0000524	0	0.89540E-05	473054.9	3755729.1	470.7	3.50	4.00	1.63	YES		NO
L0000525	0	0.89540E-05	473053.1	3755737.5	470.7	3.50	4.00	1.63	YES		NO
L0000526	0	0.89540E-05	473051.2	3755745.9	470.7	3.50	4.00	1.63	YES		NO
L0000527	0	0.89540E-05	473049.4	3755754.3	470.7	3.50	4.00	1.63	YES		NO
L0000528	0	0.89540E-05	473047.6	3755762.7	470.7	3.50	4.00	1.63	YES		NO
L0000529	0	0.89540E-05	473045.7	3755771.1	470.7	3.50	4.00	1.63	YES		NO
L0000530	0	0.89540E-05	473043.9	3755779.5	470.7	3.50	4.00	1.63	YES		NO
L0000531	0	0.89540E-05	473042.1	3755787.9	470.7	3.50	4.00	1.63	YES		NO
L0000532	0	0.89540E-05	473040.2	3755796.3	470.7	3.50	4.00	1.63	YES		NO
L0000533	0	0.89540E-05	473038.4	3755804.7	470.6	3.50	4.00	1.63	YES		NO
L0000534	0	0.89540E-05	473036.6	3755813.1	470.6	3.50	4.00	1.63	YES		NO
L0000535	0	0.89540E-05	473034.5	3755821.4	470.5	3.50	4.00	1.63	YES		NO
L0000536	0	0.89540E-05	473032.2	3755829.7	470.5	3.50	4.00	1.63	YES		NO
L0000537	0	0.89540E-05	473029.8	3755837.9	470.5	3.50	4.00	1.63	YES		NO
L0000538	0	0.89540E-05	473027.5	3755846.2	470.5	3.50	4.00	1.63	YES		NO
L0000539	0	0.89540E-05	473025.1	3755854.5	470.4	3.50	4.00	1.63	YES		NO
L0000540	0	0.89540E-05	473022.8	3755862.7	470.3	3.50	4.00	1.63	YES		NO

L0000541	0	0.89540E-05	473020.4	3755871.0	470.3	3.50	4.00	1.63	YES	NO
L0000542	0	0.89540E-05	473018.1	3755879.2	470.2	3.50	4.00	1.63	YES	NO
L0000543	0	0.89540E-05	473015.7	3755887.5	470.1	3.50	4.00	1.63	YES	NO
L0000544	0	0.89540E-05	473013.1	3755895.6	470.0	3.50	4.00	1.63	YES	NO
L0000545	0	0.89540E-05	473009.2	3755903.3	470.0	3.50	4.00	1.63	YES	NO
L0000546	0	0.89540E-05	473005.3	3755910.9	470.1	3.50	4.00	1.63	YES	NO
L0000547	0	0.89540E-05	473001.3	3755918.6	470.1	3.50	4.00	1.63	YES	NO
L0000548	0	0.89540E-05	472997.4	3755926.2	470.0	3.50	4.00	1.63	YES	NO
L0000549	0	0.89540E-05	472993.5	3755933.9	470.3	3.50	4.00	1.63	YES	NO
L0000550	0	0.89540E-05	472989.6	3755941.5	470.6	3.50	4.00	1.63	YES	NO
L0000551	0	0.89540E-05	472985.7	3755949.2	470.7	3.50	4.00	1.63	YES	NO
L0000552	0	0.89540E-05	472981.8	3755956.8	470.8	3.50	4.00	1.63	YES	NO
L0000553	0	0.89540E-05	472976.8	3755963.8	470.9	3.50	4.00	1.63	YES	NO
L0000554	0	0.89540E-05	472971.6	3755970.6	470.8	3.50	4.00	1.63	YES	NO
L0000555	0	0.89540E-05	472966.3	3755977.4	470.4	3.50	4.00	1.63	YES	NO
L0000556	0	0.89540E-05	472961.0	3755984.2	469.7	3.50	4.00	1.63	YES	NO
L0000557	0	0.89540E-05	472955.7	3755990.9	469.3	3.50	4.00	1.63	YES	NO
L0000558	0	0.89540E-05	472950.4	3755997.7	469.7	3.50	4.00	1.63	YES	NO
L0000559	0	0.89540E-05	472945.2	3756004.5	469.6	3.50	4.00	1.63	YES	NO
L0000560	0	0.89540E-05	472939.9	3756011.3	469.1	3.50	4.00	1.63	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	AIRCRAFT
L0000561	0	0.89540E-05	472934.6	3756018.0	468.1	3.50	4.00	1.63	YES		NO
L0000562	0	0.89540E-05	472928.7	3756024.3	467.8	3.50	4.00	1.63	YES		NO
L0000563	0	0.89540E-05	472922.7	3756030.5	467.8	3.50	4.00	1.63	YES		NO
L0000564	0	0.89540E-05	472916.8	3756036.6	467.7	3.50	4.00	1.63	YES		NO
L0000565	0	0.89540E-05	472910.8	3756042.8	467.4	3.50	4.00	1.63	YES		NO
L0000566	0	0.89540E-05	472904.8	3756049.0	467.1	3.50	4.00	1.63	YES		NO
L0000567	0	0.89540E-05	472898.8	3756055.2	466.9	3.50	4.00	1.63	YES		NO
L0000568	0	0.89540E-05	472892.9	3756061.3	466.8	3.50	4.00	1.63	YES		NO
L0000569	0	0.89540E-05	472886.0	3756066.4	466.7	3.50	4.00	1.63	YES		NO
L0000570	0	0.89540E-05	472878.9	3756071.3	466.6	3.50	4.00	1.63	YES		NO
L0000571	0	0.89540E-05	472871.8	3756076.1	466.4	3.50	4.00	1.63	YES		NO
L0000572	0	0.89540E-05	472864.7	3756081.0	466.1	3.50	4.00	1.63	YES		NO
L0000573	0	0.89540E-05	472857.6	3756085.8	465.9	3.50	4.00	1.63	YES		NO
L0000574	0	0.89540E-05	472850.5	3756090.7	465.9	3.50	4.00	1.63	YES		NO
L0000575	0	0.89540E-05	472843.4	3756095.5	465.8	3.50	4.00	1.63	YES		NO
L0000576	0	0.89540E-05	472836.2	3756100.1	465.7	3.50	4.00	1.63	YES		NO
L0000577	0	0.89540E-05	472828.9	3756104.7	465.4	3.50	4.00	1.63	YES		NO

L0000578	0	0.89540E-05	472821.7	3756109.4	465.3	3.50	4.00	1.63	YES	NO
L0000579	0	0.89540E-05	472814.4	3756114.0	465.0	3.50	4.00	1.63	YES	NO
L0000580	0	0.89540E-05	472807.1	3756118.5	464.9	3.50	4.00	1.63	YES	NO
L0000581	0	0.89540E-05	472799.3	3756122.0	464.8	3.50	4.00	1.63	YES	NO
L0000582	0	0.89540E-05	472791.4	3756125.5	464.6	3.50	4.00	1.63	YES	NO
L0000583	0	0.89540E-05	472783.6	3756129.0	464.4	3.50	4.00	1.63	YES	NO
L0000584	0	0.89540E-05	472775.7	3756132.4	464.2	3.50	4.00	1.63	YES	NO
L0000585	0	0.89540E-05	472767.8	3756135.7	464.0	3.50	4.00	1.63	YES	NO
L0000586	0	0.89540E-05	472759.9	3756139.0	463.7	3.50	4.00	1.63	YES	NO
L0000587	0	0.89540E-05	472751.9	3756142.3	463.4	3.50	4.00	1.63	YES	NO
L0000588	0	0.89540E-05	472744.0	3756145.5	463.3	3.50	4.00	1.63	YES	NO
L0000589	0	0.89540E-05	472736.0	3756148.8	463.2	3.50	4.00	1.63	YES	NO
L0000590	0	0.89540E-05	472728.1	3756152.1	463.1	3.50	4.00	1.63	YES	NO
L0000591	0	0.89540E-05	472720.2	3756155.4	463.0	3.50	4.00	1.63	YES	NO
L0000592	0	0.89540E-05	472712.2	3756158.8	462.9	3.50	4.00	1.63	YES	NO
L0000593	0	0.89540E-05	472704.3	3756162.1	462.7	3.50	4.00	1.63	YES	NO
L0000594	0	0.89540E-05	472696.4	3756165.4	462.5	3.50	4.00	1.63	YES	NO
L0000595	0	0.89540E-05	472688.5	3756168.7	462.3	3.50	4.00	1.63	YES	NO
L0000596	0	0.89540E-05	472680.5	3756172.0	462.1	3.50	4.00	1.63	YES	NO
L0000597	0	0.89540E-05	472672.6	3756175.2	461.9	3.50	4.00	1.63	YES	NO
L0000598	0	0.89540E-05	472664.6	3756178.4	461.8	3.50	4.00	1.63	YES	NO
L0000599	0	0.89540E-05	472656.6	3756181.6	461.7	3.50	4.00	1.63	YES	NO
L0000600	0	0.89540E-05	472648.7	3756184.9	461.6	3.50	4.00	1.63	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	AIRCRAFT
L0000601	0	0.89540E-05	472640.7	3756188.1	461.6	3.50	4.00	1.63	YES		NO
L0000602	0	0.89540E-05	472632.8	3756191.3	461.4	3.50	4.00	1.63	YES		NO
L0000603	0	0.89540E-05	472624.8	3756194.6	461.3	3.50	4.00	1.63	YES		NO
L0000604	0	0.89540E-05	472616.8	3756197.8	461.2	3.50	4.00	1.63	YES		NO
L0000605	0	0.89540E-05	472608.9	3756201.0	461.1	3.50	4.00	1.63	YES		NO
L0000606	0	0.89540E-05	472600.9	3756204.2	461.0	3.50	4.00	1.63	YES		NO
L0000607	0	0.89540E-05	472593.0	3756207.5	460.9	3.50	4.00	1.63	YES		NO
L0000608	0	0.89540E-05	472585.0	3756210.7	460.9	3.50	4.00	1.63	YES		NO
L0000609	0	0.89540E-05	472577.0	3756213.9	460.8	3.50	4.00	1.63	YES		NO
L0000610	0	0.89540E-05	472569.1	3756217.2	460.8	3.50	4.00	1.63	YES		NO
L0000611	0	0.89540E-05	472561.1	3756220.4	460.8	3.50	4.00	1.63	YES		NO
L0000612	0	0.89540E-05	472553.1	3756223.6	460.8	3.50	4.00	1.63	YES		NO
L0000613	0	0.89540E-05	472545.2	3756226.8	460.8	3.50	4.00	1.63	YES		NO
L0000614	0	0.89540E-05	472537.2	3756230.1	460.7	3.50	4.00	1.63	YES		NO

L0000615	0	0.89540E-05	472529.3	3756233.3	460.7	3.50	4.00	1.63	YES	NO
L0000616	0	0.89540E-05	472521.3	3756236.5	460.6	3.50	4.00	1.63	YES	NO
L0000617	0	0.89540E-05	472513.3	3756239.8	460.0	3.50	4.00	1.63	YES	NO
L0000618	0	0.89540E-05	472505.4	3756243.0	459.5	3.50	4.00	1.63	YES	NO
L0000619	0	0.89540E-05	472497.4	3756246.2	459.1	3.50	4.00	1.63	YES	NO
L0000620	0	0.89540E-05	472489.6	3756249.7	458.1	3.50	4.00	1.63	YES	NO
L0000621	0	0.89540E-05	472481.9	3756253.5	456.9	3.50	4.00	1.63	YES	NO
L0000622	0	0.89540E-05	472474.2	3756257.3	455.5	3.50	4.00	1.63	YES	NO
L0000623	0	0.89540E-05	472466.4	3756261.1	455.5	3.50	4.00	1.63	YES	NO
L0000624	0	0.89540E-05	472458.7	3756264.8	456.5	3.50	4.00	1.63	YES	NO
L0000625	0	0.89540E-05	472451.0	3756268.6	457.4	3.50	4.00	1.63	YES	NO
L0000626	0	0.89540E-05	472443.3	3756272.4	458.1	3.50	4.00	1.63	YES	NO
L0000627	0	0.89540E-05	472435.6	3756276.2	458.6	3.50	4.00	1.63	YES	NO
L0000628	0	0.89540E-05	472427.9	3756279.9	459.3	3.50	4.00	1.63	YES	NO
L0000629	0	0.89540E-05	472420.1	3756283.7	460.2	3.50	4.00	1.63	YES	NO
L0000630	0	0.89540E-05	472412.4	3756287.5	460.3	3.50	4.00	1.63	YES	NO
L0000631	0	0.89540E-05	472404.7	3756291.3	460.2	3.50	4.00	1.63	YES	NO
L0000632	0	0.89540E-05	472397.0	3756295.0	460.2	3.50	4.00	1.63	YES	NO
L0000633	0	0.89540E-05	472389.4	3756299.1	460.1	3.50	4.00	1.63	YES	NO
L0000634	0	0.89540E-05	472381.8	3756303.2	460.1	3.50	4.00	1.63	YES	NO
L0000635	0	0.89540E-05	472374.3	3756307.2	460.1	3.50	4.00	1.63	YES	NO
L0000636	0	0.89540E-05	472366.7	3756311.3	459.9	3.50	4.00	1.63	YES	NO
L0000637	0	0.89540E-05	472359.2	3756315.4	459.8	3.50	4.00	1.63	YES	NO
L0000638	0	0.89540E-05	472351.6	3756319.5	459.7	3.50	4.00	1.63	YES	NO
L0000639	0	0.89540E-05	472344.0	3756323.5	459.5	3.50	4.00	1.63	YES	NO
L0000640	0	0.89540E-05	472336.5	3756327.6	459.4	3.50	4.00	1.63	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	AIRCRAFT
L0000641	0	0.89540E-05	472328.9	3756331.7	459.3	3.50	4.00	1.63	YES		NO
L0000642	0	0.89540E-05	472321.6	3756336.2	459.2	3.50	4.00	1.63	YES		NO
L0000643	0	0.89540E-05	472314.3	3756340.8	459.0	3.50	4.00	1.63	YES		NO
L0000644	0	0.89540E-05	472307.1	3756345.4	458.9	3.50	4.00	1.63	YES		NO
L0000645	0	0.89540E-05	472299.8	3756349.9	458.7	3.50	4.00	1.63	YES		NO
L0000646	0	0.89540E-05	472292.5	3756354.5	458.5	3.50	4.00	1.63	YES		NO
L0000647	0	0.89540E-05	472285.3	3756359.1	458.3	3.50	4.00	1.63	YES		NO
L0000648	0	0.89540E-05	472278.2	3756364.0	458.1	3.50	4.00	1.63	YES		NO
L0000649	0	0.89540E-05	472271.4	3756369.2	457.9	3.50	4.00	1.63	YES		NO
L0000650	0	0.89540E-05	472264.5	3756374.4	457.7	3.50	4.00	1.63	YES		NO
L0000651	0	0.89540E-05	472257.7	3756379.6	457.4	3.50	4.00	1.63	YES		NO

L0000652	0	0.89540E-05	472250.8	3756384.8	457.1	3.50	4.00	1.63	YES	NO
L0000653	0	0.89540E-05	472244.0	3756390.0	456.8	3.50	4.00	1.63	YES	NO
L0000654	0	0.89540E-05	472237.1	3756395.2	456.6	3.50	4.00	1.63	YES	NO
L0000655	0	0.89540E-05	472230.3	3756400.3	456.4	3.50	4.00	1.63	YES	NO
L0000656	0	0.89540E-05	472223.4	3756405.5	456.1	3.50	4.00	1.63	YES	NO
L0000657	0	0.89540E-05	472216.6	3756410.7	455.7	3.50	4.00	1.63	YES	NO
L0000658	0	0.89540E-05	472210.0	3756416.2	455.3	3.50	4.00	1.63	YES	NO
L0000659	0	0.89540E-05	472203.5	3756421.9	454.9	3.50	4.00	1.63	YES	NO
L0000660	0	0.89540E-05	472197.0	3756427.5	454.8	3.50	4.00	1.63	YES	NO
L0000661	0	0.89540E-05	472190.5	3756433.1	454.4	3.50	4.00	1.63	YES	NO
L0000662	0	0.89540E-05	472184.1	3756438.7	454.1	3.50	4.00	1.63	YES	NO
L0000663	0	0.89540E-05	472177.6	3756444.4	453.7	3.50	4.00	1.63	YES	NO
L0000664	0	0.89540E-05	472171.1	3756450.0	453.3	3.50	4.00	1.63	YES	NO
L0000665	0	0.89540E-05	472164.6	3756455.6	453.0	3.50	4.00	1.63	YES	NO

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
	L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
	L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
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L0000153 , L0000154 , L0000155 , L0000156 , L0000157 , L0000158 , L0000159 , L0000160 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs
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L0000177 , L0000178 , L0000179 , L0000180 , L0000181 , L0000182 , L0000183 , L0000184 ,

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

L0000481 , L0000482 , L0000483 , L0000484 , L0000485 , L0000486 , L0000487 , L0000488 ,

L0000489 , L0000490 , L0000491 , L0000492 , L0000493 , L0000494 , L0000495 , L0000496 ,

L0000497 , L0000498 , L0000499 , L0000500 , L0000501 , L0000502 , L0000503 , L0000504 ,

L0000505 , L0000506 , L0000507 , L0000508 , L0000509 , L0000510 , L0000511 , L0000512 ,

L0000513 , L0000514 , L0000515 , L0000516 , L0000517 , L0000518 , L0000519 , L0000520 ,

L0000521 , L0000522 , L0000523 , L0000524 , L0000525 , L0000526 , L0000527 , L0000528 ,

L0000529 , L0000530 , L0000531 , L0000532 , L0000533 , L0000534 , L0000535 , L0000536 ,

L0000537 , L0000538 , L0000539 , L0000540 , L0000541 , L0000542 , L0000543 , L0000544 ,

L0000545 , L0000546 , L0000547 , L0000548 , L0000549 , L0000550 , L0000551 , L0000552 ,

L0000553 , L0000554 , L0000555 , L0000556 , L0000557 , L0000558 , L0000559 , L0000560 ,

L0000561 , L0000562 , L0000563 , L0000564 , L0000565 , L0000566 , L0000567 , L0000568 ,

L0000569 , L0000570 , L0000571 , L0000572 , L0000573 , L0000574 , L0000575 , L0000576 ,

L0000577 , L0000578 , L0000579 , L0000580 , L0000581 , L0000582 , L0000583 , L0000584 ,

L0000585 , L0000586 , L0000587 , L0000588 , L0000589 , L0000590 , L0000591 , L0000592 ,

L0000593 , L0000594 , L0000595 , L0000596 , L0000597 , L0000598 , L0000599 , L0000600 ,

L0000601 , L0000602 , L0000603 , L0000604 , L0000605 , L0000606 , L0000607 , L0000608 ,

L0000609 , L0000610 , L0000611 , L0000612 , L0000613 , L0000614 , L0000615 , L0000616 ,

L0000617 , L0000618 , L0000619 , L0000620 , L0000621 , L0000622 , L0000623 , L0000624 ,

L0000625 , L0000626 , L0000627 , L0000628 , L0000629 , L0000630 , L0000631 , L0000632 ,

L0000633 , L0000634 , L0000635 , L0000636 , L0000637 , L0000638 , L0000639 , L0000640 ,

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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L0000649 , L0000650 , L0000651 , L0000652 , L0000653 , L0000654 , L0000655 , L0000656 ,

L0000657 , L0000658 , L0000659 , L0000660 , L0000661 , L0000662 , L0000663 , L0000664 ,

L0000665 ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

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             2492442.   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    ,
             L0000049    , L0000050    , L0000051    , L0000052    , L0000053    , L0000054    , L0000055    , L0000056    ,
             L0000057    , L0000058    , L0000059    , L0000060    , L0000061    , L0000062    , L0000063    , L0000064    ,
             L0000065    , L0000066    , L0000067    , L0000068    , L0000069    , L0000070    , L0000071    , L0000072    ,
             L0000073    , L0000074    , L0000075    , L0000076    , L0000077    , L0000078    , L0000079    , L0000080    ,
             L0000081    , L0000082    , L0000083    , L0000084    , L0000085    , L0000086    , L0000087    , L0000088    ,
             L0000089    , L0000090    , L0000091    , L0000092    , L0000093    , L0000094    , L0000095    , L0000096    ,
             L0000097    , L0000098    , L0000099    , L0000100    , L0000101    , L0000102    , L0000103    , L0000104    ,
             L0000105    , L0000106    , L0000107    , L0000108    , L0000109    , L0000110    , L0000111    , L0000112    ,
             L0000113    , L0000114    , L0000115    , L0000116    , L0000117    , L0000118    , L0000119    , L0000120    ,
             L0000121    , L0000122    , L0000123    , L0000124    , L0000125    , L0000126    , L0000127    , L0000128    ,
             L0000129    , L0000130    , L0000131    , L0000132    , L0000133    , L0000134    , L0000135    , L0000136    ,
             L0000137    , L0000138    , L0000139    , L0000140    , L0000141    , L0000142    , L0000143    , L0000144    ,
             L0000145    , L0000146    , L0000147    , L0000148    , L0000149    , L0000150    , L0000151    , L0000152    ,
             L0000153    , L0000154    , L0000155    , L0000156    , L0000157    , L0000158    , L0000159    , L0000160    ,
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*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0000161 , L0000162 , L0000163 , L0000164 , L0000165 , L0000166 , L0000167 , L0000168 ,
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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 , L0000222 , L0000223 , L0000224 ,
L0000225 , L0000226 , L0000227 , L0000228 , L0000229 , L0000230 , L0000231 , L0000232 ,
L0000233 , L0000234 , L0000235 , L0000236 , L0000237 , L0000238 , L0000239 , L0000240 ,
L0000241 , L0000242 , L0000243 , L0000244 , L0000245 , L0000246 , L0000247 , L0000248 ,
L0000249 , L0000250 , L0000251 , L0000252 , L0000253 , L0000254 , L0000255 , L0000256 ,
L0000257 , L0000258 , L0000259 , L0000260 , L0000261 , L0000262 , L0000263 , L0000264 ,
L0000265 , L0000266 , L0000267 , L0000268 , L0000269 , L0000270 , L0000271 , L0000272 ,
L0000273 , L0000274 , L0000275 , L0000276 , L0000277 , L0000278 , L0000279 , L0000280 ,
L0000281 , L0000282 , L0000283 , L0000284 , L0000285 , L0000286 , L0000287 , L0000288 ,
L0000289 , L0000290 , L0000291 , L0000292 , L0000293 , L0000294 , L0000295 , L0000296 ,
L0000297 , L0000298 , L0000299 , L0000300 , L0000301 , L0000302 , L0000303 , L0000304 ,
L0000305 , L0000306 , L0000307 , L0000308 , L0000309 , L0000310 , L0000311 , L0000312 ,
L0000313 , L0000314 , L0000315 , L0000316 , L0000317 , L0000318 , L0000319 , L0000320 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

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L0000321 , L0000322 , L0000323 , L0000324 , L0000325 , L0000326 , L0000327 , L0000328 ,
L0000329 , L0000330 , L0000331 , L0000332 , L0000333 , L0000334 , L0000335 , L0000336 ,
L0000337 , L0000338 , L0000339 , L0000340 , L0000341 , L0000342 , L0000343 , L0000344 ,
L0000345 , L0000346 , L0000347 , L0000348 , L0000349 , L0000350 , L0000351 , L0000352 ,
L0000353 , L0000354 , L0000355 , L0000356 , L0000357 , L0000358 , L0000359 , L0000360 ,
L0000361 , L0000362 , L0000363 , L0000364 , L0000365 , L0000366 , L0000367 , L0000368 ,
L0000369 , L0000370 , L0000371 , L0000372 , L0000373 , L0000374 , L0000375 , L0000376 ,
L0000377 , L0000378 , L0000379 , L0000380 , L0000381 , L0000382 , L0000383 , L0000384 ,
L0000385 , L0000386 , L0000387 , L0000388 , L0000389 , L0000390 , L0000391 , L0000392 ,
L0000393 , L0000394 , L0000395 , L0000396 , L0000397 , L0000398 , L0000399 , L0000400 ,
L0000401 , L0000402 , L0000403 , L0000404 , L0000405 , L0000406 , L0000407 , L0000408 ,
L0000409 , L0000410 , L0000411 , L0000412 , L0000413 , L0000414 , L0000415 , L0000416 ,
L0000417 , L0000418 , L0000419 , L0000420 , L0000421 , L0000422 , L0000423 , L0000424 ,
L0000425 , L0000426 , L0000427 , L0000428 , L0000429 , L0000430 , L0000431 , L0000432 ,
L0000433 , L0000434 , L0000435 , L0000436 , L0000437 , L0000438 , L0000439 , L0000440 ,
L0000441 , L0000442 , L0000443 , L0000444 , L0000445 , L0000446 , L0000447 , L0000448 ,
L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 , L0000455 , L0000456 ,
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L0000465 , L0000466 , L0000467 , L0000468 , L0000469 , L0000470 , L0000471 , L0000472 ,
L0000473 , L0000474 , L0000475 , L0000476 , L0000477 , L0000478 , L0000479 , L0000480 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
		L0000481 , L0000482 , L0000483 , L0000484 , L0000485 , L0000486 , L0000487 , L0000488 ,
		L0000489 , L0000490 , L0000491 , L0000492 , L0000493 , L0000494 , L0000495 , L0000496 ,
		L0000497 , L0000498 , L0000499 , L0000500 , L0000501 , L0000502 , L0000503 , L0000504 ,
		L0000505 , L0000506 , L0000507 , L0000508 , L0000509 , L0000510 , L0000511 , L0000512 ,
		L0000513 , L0000514 , L0000515 , L0000516 , L0000517 , L0000518 , L0000519 , L0000520 ,
		L0000521 , L0000522 , L0000523 , L0000524 , L0000525 , L0000526 , L0000527 , L0000528 ,
		L0000529 , L0000530 , L0000531 , L0000532 , L0000533 , L0000534 , L0000535 , L0000536 ,
		L0000537 , L0000538 , L0000539 , L0000540 , L0000541 , L0000542 , L0000543 , L0000544 ,
		L0000545 , L0000546 , L0000547 , L0000548 , L0000549 , L0000550 , L0000551 , L0000552 ,
		L0000553 , L0000554 , L0000555 , L0000556 , L0000557 , L0000558 , L0000559 , L0000560 ,
		L0000561 , L0000562 , L0000563 , L0000564 , L0000565 , L0000566 , L0000567 , L0000568 ,
		L0000569 , L0000570 , L0000571 , L0000572 , L0000573 , L0000574 , L0000575 , L0000576 ,
		L0000577 , L0000578 , L0000579 , L0000580 , L0000581 , L0000582 , L0000583 , L0000584 ,
		L0000585 , L0000586 , L0000587 , L0000588 , L0000589 , L0000590 , L0000591 , L0000592 ,
		L0000593 , L0000594 , L0000595 , L0000596 , L0000597 , L0000598 , L0000599 , L0000600 ,
		L0000601 , L0000602 , L0000603 , L0000604 , L0000605 , L0000606 , L0000607 , L0000608 ,
		L0000609 , L0000610 , L0000611 , L0000612 , L0000613 , L0000614 , L0000615 , L0000616 ,
		L0000617 , L0000618 , L0000619 , L0000620 , L0000621 , L0000622 , L0000623 , L0000624 ,
		L0000625 , L0000626 , L0000627 , L0000628 , L0000629 , L0000630 , L0000631 , L0000632 ,
		L0000633 , L0000634 , L0000635 , L0000636 , L0000637 , L0000638 , L0000639 , L0000640 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID URBAN POP SOURCE IDs
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L0000641 , L0000642 , L0000643 , L0000644 , L0000645 , L0000646 , L0000647 , L0000648 ,

L0000649 , L0000650 , L0000651 , L0000652 , L0000653 , L0000654 , L0000655 , L0000656 ,

L0000657 , L0000658 , L0000659 , L0000660 , L0000661 , L0000662 , L0000663 , L0000664 ,

L0000665 ,

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

472458.6, 472508.6, 472558.6, 472608.6, 472658.6, 472708.6, 472758.6, 472808.6, 472858.6, 472908.6,
472958.6, 473008.6, 473058.6, 473108.6, 473158.6, 473208.6, 473258.6, 473308.6, 473358.6, 473408.6,
473458.6,

*** Y-COORDINATES OF GRID ***
(METERS)

3755753.1, 3755803.1, 3755853.1, 3755903.1, 3755953.1, 3756003.1, 3756053.1, 3756103.1, 3756153.1, 3756203.1,
3756253.1, 3756303.1, 3756353.1, 3756403.1, 3756453.1, 3756503.1, 3756553.1, 3756603.1, 3756653.1, 3756703.1,
3756753.1,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	472458.56	472508.56	472558.56	472608.56	472658.56	472708.56	472758.56	472808.56	472858.56
3756753.13	462.60	462.10	465.30	469.20	472.20	470.50	470.20	472.90	474.30
3756703.13	457.00	457.90	462.00	465.20	470.40	467.30	469.10	470.10	471.50

3756653.13	454.90	457.30	458.60	461.40	463.70	465.80	468.50	470.30	471.50
3756603.13	454.70	454.80	456.30	460.10	461.80	464.80	467.50	470.00	471.50
3756553.13	453.70	456.80	459.00	461.10	461.70	465.50	466.80	469.30	470.80
3756503.13	453.80	458.10	459.70	460.70	461.30	464.70	465.90	467.30	469.00
3756453.13	452.30	453.70	456.30	459.70	462.20	463.20	464.50	466.60	468.50
3756403.13	451.60	454.40	456.30	459.00	462.50	463.10	464.00	469.00	471.00
3756353.13	451.70	456.70	456.60	458.60	462.50	463.50	464.60	468.30	471.60
3756303.13	454.10	457.50	457.90	459.00	463.70	464.50	464.90	467.40	471.20
3756253.13	457.30	459.80	459.90	460.40	462.20	464.30	466.30	468.40	470.40
3756203.13	460.10	459.60	461.20	461.10	462.00	464.20	466.40	468.10	469.70
3756153.13	460.20	459.00	463.20	463.10	462.40	462.70	464.00	466.30	470.10
3756103.13	459.90	458.00	463.50	464.60	465.30	465.00	464.90	465.20	466.60
3756053.13	459.20	456.20	455.70	463.60	467.20	467.60	468.50	468.90	466.70
3756003.13	458.30	457.10	456.20	462.50	466.60	469.30	469.70	471.20	471.50
3755953.13	462.10	460.00	459.90	464.80	465.40	467.00	471.70	474.40	472.30
3755903.13	464.50	464.20	460.80	461.00	464.10	464.90	467.50	474.40	474.60
3755853.13	464.80	464.80	464.40	461.10	461.90	463.80	464.90	469.00	475.70
3755803.13	465.20	465.30	465.30	465.10	462.10	463.60	464.40	465.60	469.50
3755753.13	466.10	466.50	466.40	466.50	465.80	463.10	465.00	465.30	466.60

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 472908.56	472958.56	473008.56	473058.56	473108.56	473158.56	473208.56	473258.56	473308.56
3756753.13	477.30	477.50	481.10	482.10	483.40	485.90	489.10	492.30	495.20
3756703.13	473.90	476.70	478.70	479.90	482.70	485.60	487.80	490.70	493.70
3756653.13	473.00	476.10	478.30	480.00	481.20	485.10	487.00	490.00	492.40
3756603.13	472.40	474.70	477.30	479.50	481.00	483.80	485.20	488.10	489.90
3756553.13	474.30	476.30	477.00	479.30	480.50	482.30	484.20	485.90	488.10
3756503.13	472.00	475.10	476.90	478.30	479.70	481.10	482.50	484.50	486.60
3756453.13	470.30	472.40	476.60	478.20	479.50	480.30	481.90	483.80	485.50
3756403.13	472.00	472.90	475.00	478.00	479.30	481.10	482.90	484.10	486.20
3756353.13	473.80	473.60	475.90	477.60	479.40	480.70	481.70	483.80	485.30
3756303.13	472.50	473.60	475.90	476.80	478.30	479.20	480.30	481.70	482.90
3756253.13	471.50	472.50	473.60	475.00	476.30	477.30	478.60	480.10	481.00
3756203.13	470.80	471.40	471.90	473.40	475.50	476.00	477.20	479.00	479.60
3756153.13	470.70	471.10	471.30	472.40	474.70	475.00	475.80	477.30	478.50
3756103.13	467.70	469.00	470.70	471.60	473.60	473.90	474.60	477.00	479.30
3756053.13	467.30	470.10	472.10	472.90	473.80	474.50	475.20	476.20	477.60
3756003.13	470.20	470.50	477.50	478.50	479.00	478.80	478.60	478.50	479.10
3755953.13	471.40	468.60	474.50	476.70	477.60	478.00	478.20	478.60	479.50
3755903.13	472.20	469.70	470.00	473.60	473.90	474.00	475.60	478.40	479.10

3755853.13	471.90	471.40	469.60	472.00	474.00	476.70	478.80	477.90	477.10
3755803.13	474.20	470.50	470.60	471.40	478.60	477.40	476.50	476.80	477.30
3755753.13	469.80	472.40	470.80	470.80	474.90	476.00	476.40	476.70	476.90

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)		
	473358.56	473408.56	473458.56
3756753.13	498.40	499.90	501.10
3756703.13	496.50	498.50	499.90
3756653.13	495.10	496.30	496.80
3756603.13	492.10	493.80	495.80
3756553.13	490.30	491.40	492.80
3756503.13	487.90	489.80	492.40
3756453.13	487.80	489.30	492.20
3756403.13	487.20	488.40	490.90
3756353.13	485.70	486.50	488.40
3756303.13	484.00	484.50	486.20
3756253.13	481.60	482.70	484.40
3756203.13	480.40	483.80	485.10
3756153.13	480.30	483.50	485.20
3756103.13	480.50	482.60	484.80
3756053.13	479.20	482.40	484.70
3756003.13	480.30	482.20	484.10
3755953.13	480.50	481.90	483.50
3755903.13	478.80	479.20	481.60
3755853.13	477.60	477.70	480.10
3755803.13	477.60	477.70	478.10
3755753.13	477.00	477.30	477.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	472458.56	472508.56	472558.56	472608.56	472658.56	472708.56	472758.56	472808.56	472858.56

3756753.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756703.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756653.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756603.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756553.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756503.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756453.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756403.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756353.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756303.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756253.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756203.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756153.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756103.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756053.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756003.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755953.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755903.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755853.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755803.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755753.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 472908.56	472958.56	473008.56	473058.56	473108.56	473158.56	473208.56	473258.56	473308.56
3756753.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756703.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756653.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756603.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756553.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756503.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756453.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756403.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756353.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756303.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756253.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756203.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756153.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756103.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3756053.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00

3756003.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755953.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755903.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755853.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755803.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00
3755753.13	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00	936.00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 473358.56	473408.56	473458.56
3756753.13	936.00	936.00	936.00
3756703.13	936.00	936.00	936.00
3756653.13	936.00	936.00	936.00
3756603.13	936.00	936.00	936.00
3756553.13	936.00	936.00	936.00
3756503.13	936.00	936.00	936.00
3756453.13	936.00	936.00	936.00
3756403.13	936.00	936.00	936.00
3756353.13	936.00	936.00	936.00
3756303.13	936.00	936.00	936.00
3756253.13	936.00	936.00	936.00
3756203.13	936.00	936.00	936.00
3756153.13	936.00	936.00	936.00
3756103.13	936.00	936.00	936.00
3756053.13	936.00	936.00	936.00
3756003.13	936.00	936.00	936.00
3755953.13	936.00	936.00	936.00
3755903.13	936.00	936.00	936.00
3755853.13	936.00	936.00	936.00
3755803.13	936.00	936.00	936.00
3755753.13	936.00	936.00	936.00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
    ( 472817.2, 3756295.0,     468.4,     936.0,       0.0);        ( 472846.9, 3756294.4,     470.7,     936.0,       0.0);
    ( 472819.6, 3756342.0,     469.1,     936.0,       0.0);        ( 472866.3, 3756293.3,     471.3,     936.0,       0.0);
    ( 472891.4, 3756294.5,     471.8,     936.0,       0.0);        ( 472924.3, 3756293.8,     472.8,     936.0,       0.0);
    ( 472947.0, 3756294.2,     473.2,     936.0,       0.0);        ( 472974.0, 3756294.9,     474.6,     936.0,       0.0);
    ( 472997.1, 3756295.3,     475.5,     936.0,       0.0);        ( 472903.5, 3756369.3,     473.4,     936.0,       0.0);
    ( 472966.4, 3756364.6,     473.7,     936.0,       0.0);        ( 472838.8, 3756393.3,     472.0,     936.0,       0.0);
    ( 472939.2, 3756409.3,     472.6,     936.0,       0.0);        ( 472900.6, 3756453.9,     469.9,     936.0,       0.0);

*** AERMOD - VERSION 23132  ***   *** C:\Lakes\AERMOD View\Moreno Valley Farm Bureau\Moreno Valley Farm Bu ***       01/22/25
*** AERMET - VERSION  16216 ***   *** OY freeway DPM emissions                                             ***       10:35:17
                                                                                                                    PAGE  37

*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
                      LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL


                          SOURCE          - - RECEPTOR LOCATION - -         DISTANCE
                            ID           XR (METERS)   YR (METERS)         (METERS)
                        - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                         L0000023           473458.6     3756003.1            -1.92
                         L0000024           473458.6     3756003.1            -6.63
                         L0000048           473258.6     3756053.1            -0.06
                         L0000053           473208.6     3756053.1            -4.43
                         L0000054           473208.6     3756053.1            -3.74
                         L0000083           472958.6     3756103.1            -1.83
                         L0000088           472908.6     3756103.1            -0.40
                         L0000089           472908.6     3756103.1            -4.44
                         L0000107           472758.6     3756153.1            -6.51
                         L0000108           472758.6     3756153.1            -2.05
                         L0000120           472658.6     3756203.1             0.61
                         L0000138           472508.6     3756253.1            -3.31
                         L0000139           472508.6     3756253.1            -4.49
                         L0000236           472508.6     3756203.1            -1.15
                         L0000256           472658.6     3756103.1            -0.43
                         L0000257           472658.6     3756103.1            -4.05
                         L0000269           472758.6     3756053.1            -1.46
                         L0000270           472758.6     3756053.1            -6.13
                         L0000288           472908.6     3756003.1            -6.08
                         L0000289           472908.6     3756003.1            -1.48
                         L0000425           472508.6     3756153.1            -5.34
                         L0000426           472508.6     3756153.1            -0.33
                         L0000446           472658.6     3756053.1            -4.00
                         L0000447           472658.6     3756053.1             0.57
                         L0000454           472708.6     3756003.1            -4.97
                         L0000455           472708.6     3756003.1            -1.60
                         L0000462           472758.6     3755953.1             0.71
                         L0000479           472858.6     3755853.1            -1.57
                         L0000487           472908.6     3755803.1            -0.81
                         L0000495           472958.6     3755753.1            -1.59
```

L0000496	472958.6	3755753.1	-1.82
L0000527	473058.6	3755753.1	0.64
L0000544	473008.6	3755903.1	0.14
L0000545	473008.6	3755903.1	-7.98
L0000546	473008.6	3755903.1	-0.11
L0000566	472908.6	3756053.1	-3.01
L0000592	472708.6	3756153.1	-1.87
L0000605	472608.6	3756203.1	-6.46
L0000606	472608.6	3756203.1	-0.87

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** 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
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 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
```

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\KRAL_V9_ADJU\KRAL_v9.SFC Met Version: 16216
Profile file: E:\New MET data\KRAL_V9_ADJU\KRAL_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 3171 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

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
12	01	01	1	01	-25.6	0.266	-9.000	-9.000	-999.	330.	77.9	0.15	2.40	1.00	2.93	55.	10.1	288.1	2.0
12	01	01	1	02	-26.8	0.277	-9.000	-9.000	-999.	351.	84.7	0.15	2.40	1.00	3.05	55.	10.1	287.0	2.0
12	01	01	1	03	-21.5	0.221	-9.000	-9.000	-999.	250.	53.5	0.15	2.40	1.00	2.45	74.	10.1	284.2	2.0
12	01	01	1	04	-22.0	0.227	-9.000	-9.000	-999.	260.	56.8	0.15	2.40	1.00	2.52	77.	10.1	285.9	2.0
12	01	01	1	05	-20.0	0.206	-9.000	-9.000	-999.	225.	46.8	0.15	2.40	1.00	2.30	80.	10.1	285.4	2.0
12	01	01	1	06	-14.4	0.171	-9.000	-9.000	-999.	170.	32.1	0.15	2.40	1.00	1.93	79.	10.1	287.0	2.0
12	01	01	1	07	-14.9	0.174	-9.000	-9.000	-999.	174.	33.2	0.15	2.40	1.00	1.96	77.	10.1	284.2	2.0
12	01	01	1	08	-11.9	0.169	-9.000	-9.000	-999.	167.	36.1	0.15	2.40	0.53	1.89	77.	10.1	288.1	2.0
12	01	01	1	09	40.4	0.234	0.359	0.006	40.	272.	-28.1	0.15	2.40	0.31	2.10	81.	10.1	289.2	2.0
12	01	01	1	10	112.6	0.246	0.742	0.005	129.	293.	-11.8	0.15	2.40	0.24	1.99	101.	10.1	296.4	2.0
12	01	01	1	11	161.0	0.402	1.188	0.005	369.	611.	-35.6	0.15	2.40	0.21	3.68	78.	10.1	298.8	2.0
12	01	01	1	12	184.7	0.337	1.516	0.005	668.	473.	-18.4	0.15	2.40	0.20	2.89	68.	10.1	300.4	2.0
12	01	01	1	13	183.9	0.310	1.809	0.005	1139.	414.	-14.2	0.15	2.40	0.20	2.57	64.	10.1	302.5	2.0
12	01	01	1	14	156.6	0.374	1.852	0.005	1434.	549.	-29.5	0.15	2.40	0.22	3.37	63.	10.1	303.1	2.0
12	01	01	1	15	104.3	0.382	1.658	0.005	1546.	567.	-47.2	0.15	2.40	0.25	3.59	62.	10.1	302.5	2.0
12	01	01	1	16	31.8	0.374	1.123	0.005	1573.	550.	-145.8	0.15	2.40	0.34	3.76	69.	10.1	300.9	2.0
12	01	01	1	17	-23.3	0.276	-9.000	-9.000	-999.	354.	84.0	0.15	2.40	0.62	3.03	59.	10.1	297.5	2.0
12	01	01	1	18	-21.5	0.229	-9.000	-9.000	-999.	264.	57.8	0.15	2.40	1.00	2.54	54.	10.1	295.4	2.0
12	01	01	1	19	-19.3	0.204	-9.000	-9.000	-999.	221.	45.6	0.15	2.40	1.00	2.27	79.	10.1	292.0	2.0
12	01	01	1	20	-20.7	0.218	-9.000	-9.000	-999.	244.	52.2	0.15	2.40	1.00	2.42	79.	10.1	292.5	2.0
12	01	01	1	21	-19.7	0.206	-9.000	-9.000	-999.	225.	46.9	0.15	2.40	1.00	2.30	95.	10.1	290.9	2.0
12	01	01	1	22	-17.6	0.190	-9.000	-9.000	-999.	199.	39.8	0.15	2.40	1.00	2.13	78.	10.1	290.4	2.0
12	01	01	1	23	-20.3	0.211	-9.000	-9.000	-999.	233.	49.0	0.15	2.40	1.00	2.35	52.	10.1	289.2	2.0
12	01	01	1	24	-16.4	0.183	-9.000	-9.000	-999.	189.	37.0	0.15	2.40	1.00	2.06	75.	10.1	288.8	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	10.1	1	55.	2.93	288.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 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 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)

(METERS)	472458.56	472508.56	472558.56	472608.56	472658.56	472708.56	472758.56	472808.56	472858.56
3756753.13	0.00988	0.00983	0.00911	0.00813	0.00754	0.00767	0.00759	0.00706	0.00676
3756703.13	0.01186	0.01161	0.01109	0.01026	0.00886	0.00927	0.00875	0.00840	0.00800
3756653.13	0.01390	0.01357	0.01315	0.01260	0.01190	0.01109	0.01014	0.00954	0.00911
3756603.13	0.01673	0.01607	0.01548	0.01492	0.01422	0.01326	0.01205	0.01114	0.01054
3756553.13	0.02065	0.01976	0.01884	0.01789	0.01699	0.01561	0.01449	0.01336	0.01257
3756503.13	0.02653	0.02501	0.02345	0.02197	0.02065	0.01927	0.01794	0.01666	0.01552
3756453.13	0.03496	0.03178	0.02931	0.02735	0.02559	0.02381	0.02228	0.02054	0.01898
3756403.13	0.04805	0.04284	0.03829	0.03478	0.03223	0.02953	0.02734	0.02467	0.02252
3756353.13	0.07120	0.06209	0.05235	0.04590	0.04159	0.03755	0.03439	0.03134	0.02783
3756303.13	0.13776	0.10273	0.07921	0.06527	0.05716	0.05007	0.04447	0.04062	0.03548
3756253.13	0.23444	0.23043	0.16504	0.11301	0.08702	0.07129	0.06228	0.05396	0.04697
3756203.13	0.21606	0.20118	0.20310	0.22158	0.19373	0.12913	0.09712	0.07914	0.06605
3756153.13	0.10960	0.15353	0.19466	0.17459	0.16390	0.20380	0.20855	0.15292	0.10892
3756103.13	0.06473	0.08271	0.13955	0.17727	0.15268	0.14540	0.13950	0.18472	0.19591
3756053.13	0.04647	0.05371	0.06600	0.10389	0.14495	0.13600	0.13682	0.14050	0.14299
3756003.13	0.03624	0.04108	0.04734	0.06117	0.08602	0.12336	0.11757	0.10863	0.13423
3755953.13	0.02992	0.03361	0.03810	0.04488	0.05469	0.07305	0.12241	0.11034	0.08669
3755903.13	0.02486	0.02777	0.03118	0.03513	0.04091	0.04906	0.06473	0.12801	0.10011
3755853.13	0.02138	0.02353	0.02613	0.02906	0.03267	0.03775	0.04546	0.06208	0.11453
3755803.13	0.01862	0.02030	0.02226	0.02459	0.02732	0.03082	0.03569	0.04363	0.06176
3755753.13	0.01626	0.01749	0.01911	0.02089	0.02323	0.02589	0.02940	0.03435	0.04280

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 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 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 472908.56	472958.56	473008.56	473058.56	473108.56	473158.56	473208.56	473258.56	473308.56
3756753.13	0.00616	0.00600	0.00546	0.00525	0.00500	0.00464	0.00426	0.00391	0.00361
3756703.13	0.00748	0.00683	0.00640	0.00611	0.00565	0.00519	0.00485	0.00447	0.00411
3756653.13	0.00862	0.00783	0.00730	0.00689	0.00655	0.00590	0.00554	0.00509	0.00473
3756603.13	0.01008	0.00937	0.00856	0.00797	0.00752	0.00692	0.00654	0.00601	0.00565
3756553.13	0.01141	0.01051	0.01005	0.00931	0.00881	0.00827	0.00770	0.00723	0.00673
3756503.13	0.01420	0.01291	0.01191	0.01118	0.01052	0.00990	0.00935	0.00866	0.00805
3756453.13	0.01759	0.01629	0.01435	0.01337	0.01254	0.01189	0.01113	0.01034	0.00964

3756403.13	0.02098	0.01957	0.01799	0.01613	0.01507	0.01397	0.01300	0.01216	0.01123
3756353.13	0.02517	0.02374	0.02139	0.01967	0.01812	0.01688	0.01586	0.01458	0.01356
3756303.13	0.03224	0.02943	0.02629	0.02434	0.02241	0.02093	0.01953	0.01818	0.01702
3756253.13	0.04194	0.03786	0.03432	0.03124	0.02844	0.02633	0.02436	0.02257	0.02111
3756203.13	0.05693	0.05016	0.04490	0.04042	0.03639	0.03341	0.03081	0.02832	0.02644
3756153.13	0.08609	0.07154	0.06167	0.05442	0.04886	0.04438	0.04032	0.03698	0.03409
3756103.13	0.14589	0.13594	0.11608	0.09320	0.07879	0.06749	0.05913	0.05279	0.04766
3756053.13	0.17445	0.12071	0.10318	0.10085	0.10780	0.12431	0.10737	0.10862	0.09347
3756003.13	0.16087	0.22007	0.12105	0.09935	0.08942	0.08712	0.08820	0.09147	0.09863
3755953.13	0.09350	0.12789	0.13783	0.10772	0.10601	0.10429	0.10198	0.10049	0.09877
3755903.13	0.07848	0.08778	0.10380	0.08337	0.06363	0.05582	0.05306	0.05111	0.04939
3755853.13	0.09336	0.07958	0.11667	0.09072	0.05695	0.04603	0.04095	0.03800	0.03560
3755803.13	0.11623	0.09643	0.09938	0.11032	0.05197	0.04144	0.03534	0.03159	0.02915
3755753.13	0.06315	0.10417	0.10351	0.11923	0.05795	0.03960	0.03210	0.02789	0.02504

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 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 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 473358.56	473408.56	473458.56
3756753.13	0.00331	0.00314	0.00300
3756703.13	0.00379	0.00356	0.00338
3756653.13	0.00436	0.00415	0.00399
3756603.13	0.00525	0.00493	0.00460
3756553.13	0.00625	0.00593	0.00559
3756503.13	0.00760	0.00708	0.00650
3756453.13	0.00891	0.00835	0.00759
3756403.13	0.01060	0.00997	0.00912
3756353.13	0.01290	0.01218	0.01127
3756303.13	0.01585	0.01497	0.01386
3756253.13	0.01984	0.01853	0.01706
3756203.13	0.02466	0.02230	0.02060
3756153.13	0.03140	0.02849	0.02597
3756103.13	0.04327	0.03932	0.03541
3756053.13	0.07610	0.06534	0.05677
3756003.13	0.11097	0.13314	0.12132
3755953.13	0.09763	0.09835	0.10478

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 3755903.13 |       0.04780      0.04672      0.04716
 3755853.13 |       0.03398      0.03253      0.03185
 3755803.13 |       0.02730      0.02572      0.02432
 3755753.13 |       0.02302      0.02138      0.02002
```


*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   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   , . . .   ,

*** 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
472817.17	3756294.97	0.04139	472846.89	3756294.38	0.03814
472819.61	3756341.99	0.03217	472866.26	3756293.31	0.03677
472891.41	3756294.53	0.03483	472924.32	3756293.79	0.03269
472946.99	3756294.16	0.03130	472974.04	3756294.89	0.02943
472997.08	3756295.26	0.02791	472903.49	3756369.30	0.02375
472966.37	3756364.59	0.02241	472838.83	3756393.33	0.02371
472939.20	3756409.27	0.01961	472900.58	3756453.95	0.01777

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 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	0.23444	AT (472458.56, 3756253.13, 457.30, 936.00, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.23043	AT (472508.56, 3756253.13, 459.80, 936.00, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.22158	AT (472608.56, 3756203.13, 461.10, 936.00, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.22007	AT (472958.56, 3756003.13, 470.50, 936.00, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.21606	AT (472458.56, 3756203.13, 460.10, 936.00, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.20855	AT (472758.56, 3756153.13, 464.00, 936.00, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.20380	AT (472708.56, 3756153.13, 462.70, 936.00, 0.00)	GC	UCART1

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         8TH HIGHEST VALUE IS       0.20310 AT (  472558.56,  3756203.13,   461.20,   936.00,    0.00)  GC  UCART1
         9TH HIGHEST VALUE IS       0.20118 AT (  472508.56,  3756203.13,   459.60,   936.00,    0.00)  GC  UCART1
        10TH HIGHEST VALUE IS       0.19591 AT (  472858.56,  3756103.13,   466.60,   936.00,    0.00)  GC  UCART1


*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR

*** AERMOD - VERSION 23132  ***   *** C:\Lakes\AERMOD View\Moreno Valley Farm Bureau\Moreno Valley Farm Bu ***        01/22/25
*** AERMET - VERSION  16216 ***   *** OY freeway DPM emissions                                              ***        10:35:17
                                                                                                                    PAGE  45
*** 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            2 Warning Message(s)
A Total of         1638 Informational Message(s)

A Total of        43848 Hours Were Processed

A Total of         1039 Calm Hours Identified

A Total of          599 Missing Hours Identified (  1.37 Percent)


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


   ********   WARNING MESSAGES   ********
ME W186    1556       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187    1556       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

   ***********************************
   *** AERMOD Finishes Successfully ***
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