Air Quality Technical Report

Ponto Storage Townhomes Project

City of Carlsbad, California

JUNE 2022

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	carbon monoxide
DPM	diesel particulate matter
EPA	U.S. Environmental Protection Agency
g/L	grams per liter
HAP	hazardous air pollutant
kWh	kilowatt-hour
LOS	level of service
NAAQS	National Ambient Air Quality Standards
NO	nitric oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
O_3	ozone
$PM_{2.5}$	fine particulate matter
PM_{10}	coarse particulate matter
RAQS	Regional Air Quality Strategy
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas & Electric Company
SIP	state implementation plan
SO_2	sulfur dioxide
SO_x	sulfur oxides
TAC	toxic air contaminant
VOC	volatile organic compound

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Executive Summary

The purpose of this technical report is to assess the potential air quality impacts associated with implementation of the Ponto Storage Townhomes Project (Project). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act Guidelines.

Project Overview

The project proposes to redevelop a 4.68-acre site with 86 residential units consisting of a combination of rowhomes, townhomes, and triplexes, for a project density of 18.4 du/acre. The rowhomes and townhomes will be 3-story and the triplexes will be 2-story. The mix of units consists of eight 2-bedroom units, 40 3-bedroom units, and 38 4-bedroom units. The project will include 15% of the units (13) as affordable to low-income households, and will utilize a density bonus, which would allow for up to 19.125du/ac. The Project will include 197 parking spaces with 2 internal per unit and 25 guest parking spaces.

Project Design Features

The proposed project would implement both construction-related and operational design features intended to reduce emissions of criteria air pollutants and toxic air contaminants. Specific to construction-related PDF's, the proposed project would implement PDF-AQ-1 and PDF-AQ-2 as follow:

PDF-AQ-1: Prior to the start of construction activities and issuance of grading permits, the project applicant, or its designee, shall ensure that all 84 horsepower or greater diesel-powered equipment are powered with California Air Resources Board (CARB)-certified Tier 4 Interim engines or better, except where the project applicant establishes to the satisfaction of the City of San Diego (City) that Tier 4 Interim equipment is not available.

An exemption from this requirement may be granted by the City if (1) the City documents equipment with Tier 4 interim engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, the construction contractor shall: confirm that the proposed replacement equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method and documentation provided to the City to confirm that necessary project-generated emissions reductions are achieved.

PDF-AQ-2: Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites two times per day, depending on weather conditions. Construction of Project components would be subject to SDAPCD Rule 55 – Fugitive Dust Control. Compliance with Rule 55 would limit fugitive dust (PM10 and PM2.5) that may be generated during grading and construction activities.

Air Quality

The air quality impact analysis evaluated the potential for adverse impacts to air quality due to construction and operational emissions resulting from the Project. Impacts were evaluated for their significance based on the San Diego Air Pollution Control District (SDAPCD) mass daily criteria air pollutant thresholds of significance. Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards (criteria) for outdoor concentrations to protect public health. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated include volatile organic compounds (VOCs) (also referred to as reactive organic gases), oxides of nitrogen (NO_x), CO, sulfur oxides (SO_x), PM_{10}, and $PM_{2.5}$. VOCs and NO_x are important because they are precursors to O_3.

Air Quality Plan Consistency

If a project proposes development that is greater than that anticipated in the local plan and the growth projections set by the San Diego Association of Governments (SANDAG), the project might be in conflict with the State Implementation Plan and Regional Air Quality Strategy, and therefore may contribute to a potentially significant cumulative impact on air quality. The Project was deemed to be consistent with the current air quality plan, because the anticipated growth associated with the Project does not exceed that projected by SANDAG. In addition, the Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations. Based on these considerations, impacts related to the Project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

Construction Criteria Air Pollutant Emissions

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Maximum daily construction emissions would not exceed the SDAPCD significance thresholds for VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction. Therefore, the Project would have a less than significant impact.

Operational Criteria Air Pollutant Emissions

The analysis herein assumed an operational year of 2025. Operation of the Project would generate operational criteria air pollutants from mobile sources (vehicles), area sources (consumer product use, architectural coatings, and landscape maintenance equipment), and energy (natural gas). Maximum operational emissions would not exceed the SDAPCD operational significance thresholds for VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$.

Cumulative Impacts

The potential for a project to result in a cumulatively considerable impact, per the SDAPCD guidance and thresholds, is based on the project's potential to exceed the project-specific daily thresholds. Because maximum construction and operational emissions would not exceed the SDAPCD significance thresholds for VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$, the Project would not result in a cumulatively considerable increase in criteria air pollutants.

Exposure of Sensitive Receptors

Construction activities would not generate emissions in excess of the SDAPCD site-specific mass daily thresholds; therefore, site-specific construction impacts during construction of the Project would be less than significant. The results of the HRA demonstrate that the TAC exposure from construction diesel exhaust emissions would not result in cancer risk on site above the 10 in 1 million threshold, nor a Chronic Hazard Index greater than 1.0. Therefore, TAC emissions from construction of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, impacts to sensitive receptors would be less than significant.

The Project includes 86 residential units and based on CalEEMod modeling is expected to generate a maximum of 700 daily vehicle trips on Saturday and 630 daily trips on weekdays. The associated peak-hour trips would from the Project would be 40 and 48 for AM and PM peak hour trips, respectively. Therefore, it would not cause a measurable impact to any nearby intersections in the study area. In addition, the nearest signalized intersection to the project is located at Ponto Rd. and Carlsbad Blvd, and is over 800 feet from the Project site. Therefore, no hotspot analysis would be required based on the location of the project in relation to nearby intersections. As such, potential Project-generated impacts associated with CO hotspots would be less than significant.

Other Emissions

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application, which would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Impacts associated with odors during construction would be less than significant. The Project would be a residential development that would not include land uses with sources that have the potential to generate substantial odors, and impacts associated with odors during operation would be less than significant.

1 Introduction

1.1 Report Purpose and Scope

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with construction and operation of the Ponto Storage Townhomes Project (project). This analysis uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) and the emissions-based significance thresholds recommended by the San Diego Air Pollution Control District (SDAPCD) and other applicable thresholds of significance.

This introductory chapter provides a description of the Project and the Project location. Chapter 2 describes existing air-quality-related conditions and Chapter 3 provides a background on criteria and non-criteria air pollutants and effects. A summary of the regulatory setting is provided in Chapter 4, and regional and local air quality conditions are described in Chapter 5. Chapter 6 presents the thresholds of significance applied in the impact analysis contained in Chapter 7. Lastly, Chapter 8 includes a list of the references cited.

1.2 Project Location

The approximate 4.68-acre Project site is located within the City of Carlsbad (City), California, within San Diego County, California. Specifically, the Project site is located at 7290 Ponto Drive in Carlsbad, California (City). The existing project site consists of three parcels (APN's: 214-160-25, 214-160-28, and 214-171-11) and is currently occupied by a self-storage facility and junkyard. See Figure 1, and Figure 2.

The General Plan Designation for the site is R-15/VC Q for two of the parcels and R-15 for the third and the zoning of the site is RD-M-Q/C-T- and RD-M-Q respectively. The proposed Project is consistent with both the General Plan Land Use and Zoning for the property.

1.3 Project Description

The Project proposes to redevelop a 4.68-acre site with 86 residential units consisting of a combination of rowhomes, townhomes, and triplexes, for a project density of 18.4 du/acre. The rowhomes and townhomes will be 3-story and the triplexes will be 2-story. The mix of units consists of eight 2-bedroom units, 40 3-bedroom units, and 38 4-bedroom units. The Project will include 15% of the units (13) as affordable to low-income and will utilize a density bonus, which would allow for up to 19.125du/ac. The Project will include 197 parking spaces with 2 internal per unit and 25 guest parking spaces.

Site improvements consist of an internal primary arterial street, dog park, and additional open space. Existing dry utilities will be under-grounded and new water and stormwater connections will be made to existing facilities in Ponto Drive. A private lift station will serve a new sewer connection east of the railroad tracks.

Off-site improvements consist of curb and gutter along Ponto Road and Ponto Drive. An additional right-of-way dedication may be considered for the extension of Ponto Drive east along the southern property line if it is determined to be necessary.

1.4 Project Design Features

The proposed project would implement construction-related and operational design features intended to reduce emissions of criteria air pollutants and toxic air contaminants. Specific to construction-related PDF's, the proposed project would implement PDF-AQ-1 as follows:

PDF-AQ-1: Prior to the start of construction activities and issuance of grading permits, the project applicant, or its designee, shall ensure that all 84 horsepower or greater diesel-powered equipment are powered with California Air Resources Board (CARB)-certified Tier 4 Interim engines or better, except where the project applicant establishes to the satisfaction of the City of San Diego (City) that Tier 4 Interim equipment is not available.

An exemption from this requirement may be granted by the City if (1) the City documents equipment with Tier 4 interim engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, the construction contractor shall: confirm that the proposed replacement equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method and documentation provided to the City to confirm that necessary project-generated emissions reductions are achieved.

PDF-AQ-2 Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites two times per day, depending on weather conditions. Construction of Project components would be subject to SDAPCD Rule 55 – Fugitive Dust Control. Compliance with Rule 55 would limit fugitive dust (PM10 and PM2.5) that may be generated during grading and construction activities

PDF-AQ-1 and PDF-AQ-2 would be required as City-imposed Conditions of Approval to ensure they are implemented during construction and operation of the proposed project.

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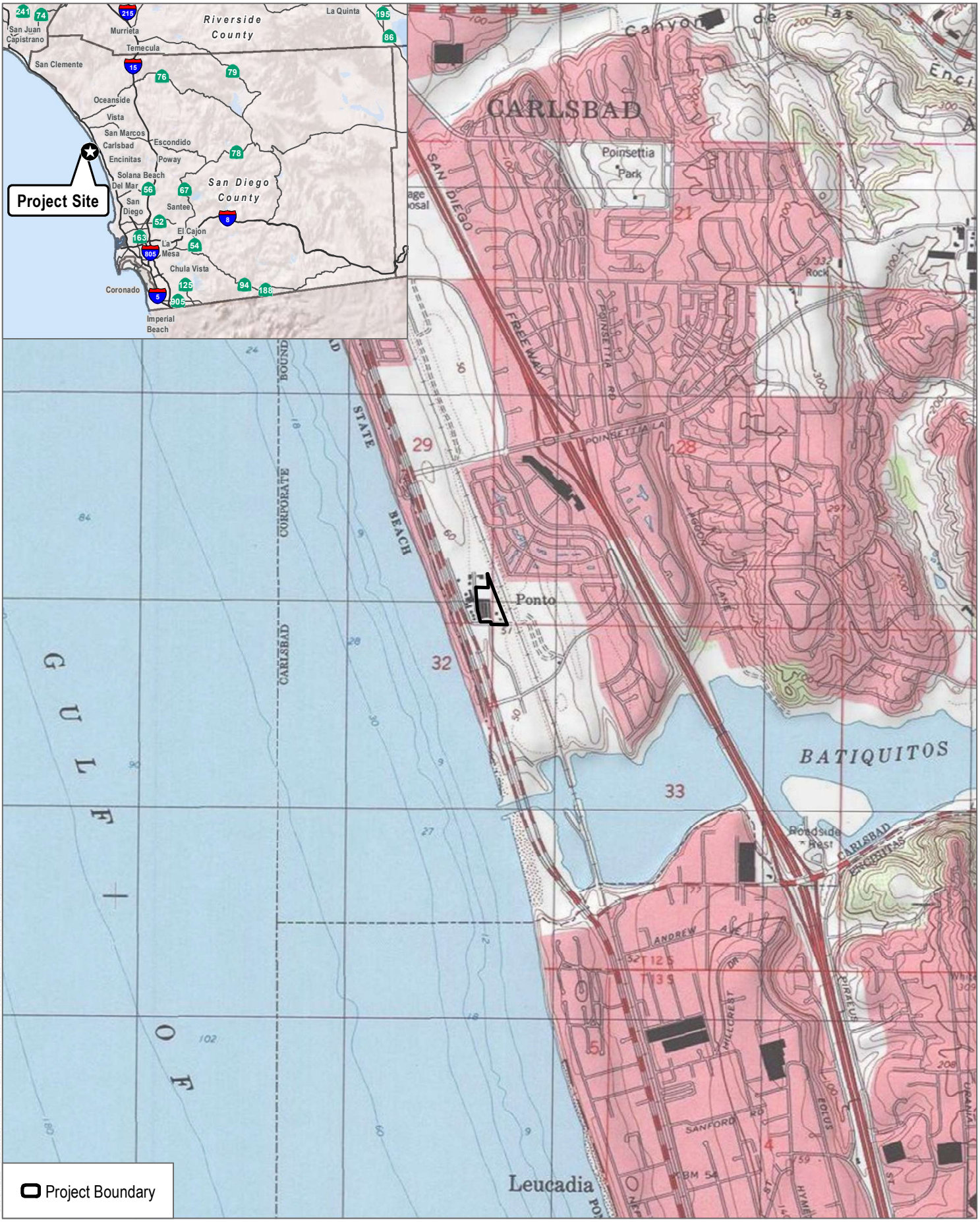

SOURCE: USGS 7.5-Minute Series Encinitas Quadrangle
Township 12S; Range 4W; Sections 28, 29, 32

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Regional Location

Ponto Storage Townhomes Project

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SOURCE: SanGIS 2017

DUDEK

0 100 200 Feet

FIGURE 2

Project Site

Ponto Storage Townhomes Project

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2 Existing Conditions

2.1 Climate and Topography

The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average temperature ranges (in degrees Fahrenheit) from the mid-40s to the high 90s. Most of the region's precipitation falls from November to April, with infrequent (approximately 10%) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches; the amount increases with elevation as moist air is lifted over the mountains (WRCC 2016).

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east; along with local meteorology, it influences the dispersal and movement of pollutants in the basin. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

2.2 San Diego Air Basin Climatology

The Project area is located within the San Diego Air Basin (SDAB) and is subject to the SDAPCD guidelines and regulations. The SDAB is one of 15 air basins that geographically divide the State of California. The SDAB is currently classified as a federal nonattainment area for ozone (O_3) and a state nonattainment area for particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), and O_3.

The SDAB, which lies in the southwest corner of California and comprises the entire San Diego region, covers 4,260 square miles and is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce O_3, which contributes to the formation of smog. Smog is a combination of smoke and other particulates, O_3, hydrocarbons, oxides of nitrogen (NO_x) and other chemically reactive compounds which, under certain conditions of weather and sunlight, may result in a murky brown haze that causes adverse health effects (CARB 2017).

Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and NO_x emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO

levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SDAB are associated with heavy traffic. Nitrogen dioxide (NO_2) levels are also generally higher during fall and winter days.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County. This often produces high O_3 concentrations, as measured at air pollutant monitoring stations within San Diego County. The transport of air pollutants from Los Angeles to San Diego has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O_3 are transported.

2.3 Sensitive Receptors

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed sensitive receptors are the most serious hazards of existing air quality conditions in the area.

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by the California Air Resources Board (CARB), include children, older adults, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest sensitive receptor to the Project site would be residences located less than 100 feet southwest of the site.

3 Pollutants and Effects

3.1 Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, NO_2, CO, sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead. These pollutants are discussed in the following paragraphs.[1] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone (O3). O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly NO_x and VOCs. The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric O_3) and at the Earth's surface in the troposphere (O_3).[2] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide (NO2). NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

[1] The following descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the U.S. Environmental Protection Agency's "Six Common Air Pollutants" (EPA 2017a) and the California Air Resources Board's "Glossary of Air Pollutant Terms" (CARB 2017) published information.

[2] The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016a).

Carbon Monoxide (CO). CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the Project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide (SO2). SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter (PM). Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) consists of particulate matter that is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate

deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$ (EPA 2009).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including IQ performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds (VOCs). Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry-cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered toxic air contaminants (TACs). There are no separate health standards for VOCs as a group.

3.2 Non-Criteria Pollutants

Toxic Air Contaminants (TACs). A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, AB 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter (DPM). DPM is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2016a). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016a). CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) as a TAC in August 1998 (17 CCR 93000). DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016a). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "Valley Fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The fungus is very prevalent in the soils of California's San Joaquin Valley, particularly in Kern County. Kern County is considered a highly endemic county (i.e., more than 20 cases annually of Valley Fever per 100,000 people) based on the incidence rates reported through 2016 (California Department of Public Health 2017). The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

San Diego County (the County) is not considered a highly endemic region for Valley Fever, as the latest report from the County of San Diego Health and Human Services Agency Public Health Services indicated the County has 8.3

cases per 100,000 people (County of San Diego 2019). In the zip code area of the Project site, the case rate is reported as less than 4.9 cases per 100,000 people (County of San Diego 2021).

4 Regulatory Setting

4.1 Federal

4.1.1 Criteria Pollutants

The federal Clean Air Act (CAA), passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the CAA, including the setting of National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant (HAP) standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions.

NAAQS are established by the EPA for "criteria pollutants" under the CAA, which are O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The CAA requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

4.1.2 Hazardous Air Pollutants

The 1977 CAA Amendments required the EPA to identify national emission standards for hazardous air pollutants to protect the public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

4.2 State

4.2.1 Criteria Pollutants

The California Clean Air Act was adopted in 1988 and establishes the state's air quality goals, planning mechanisms, regulatory strategies, and standards of progress. Under the California Clean Air Act, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB is responsible for ensuring implementation of the California Clean Air Act, responding to the federal CAA, and regulating emissions from motor vehicles and consumer products. Pursuant to the authority granted to it, CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS.

The NAAQS and CAAQS are presented in Table 1.

Table 1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as primary standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as primary standard
	Annual arithmetic mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as primary standard
	Annual arithmetic mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 µg/m³	Same as primary standard
	Annual arithmetic mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[j, k]	30-day average	1.5 µg/m³	—	—
	Calendar quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as primary standard
	Rolling 3-month average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24- hours	25 µg/m³	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016b.

Notes: O_3 = ozone; ppm = parts per million by volume; μg/m³ = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

a California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

e National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

f On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

g To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

h On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

i On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m³ to 12.0 μg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m³, as was the annual secondary standard of 15 μg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m³ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

j CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

4.2.2 Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under Assembly Bill (AB) 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; however, AB 2588 does not regulate air toxics emissions. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-

Ignition (Diesel) Engines and Equipment program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel powered equipment. Several Airborne Toxic Control Measures that reduce diesel emissions including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

California Health and Safety Code Section 41700

This section of the Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

4.3 Local

San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The Project site is located within the SDAB and is subject to the guidelines and regulations of SDAPCD.

In San Diego County, O_3 and particulate matter are the pollutants of main concern, since exceedances of CAAQS for those pollutants are experienced here in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM_{10}, $PM_{2.5}$, and O_3 standards. The SDAB is also a federal O_3 attainment (maintenance) area for 1997 8-hour O_3 standard, a O_3 nonattainment area for the 2008 8-hour O_3 standard, and a CO maintenance area (western and central part of the SDAB only). The Project area is in the CO maintenance area (western and central part of the SDAB only).

Federal Attainment Plans

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 O_3 NAAQS). The 2016 Final Eight-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O_3 standard (1997 O_3 NAAQS) by 2018 (SDAPCD 2016b). In this plan, SDAPCD relies on the Regional Air Quality Strategy (RAQS) to demonstrate how the region will comply with the federal O_3 standard. The RAQS details how the region will manage and reduce O_3 precursors (NO_x and VOCs) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

Currently, the County is designated as moderate nonattainment for the 2008 O_3 NAAQS and maintenance for the 1997 O_3 NAAQS. As documented in the 2016 Final Eight-Hour Ozone Attainment Plan for San Diego County, the County has a likely chance of obtaining attainment due to the transition to low emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego

International Airport. SDAPCD will also continue emission control measures including ongoing implementation of existing regulations in ozone precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring Best Available Retrofit Control Technology for control of emissions (SDAPCD 2016b).

State Attainment Plans

SDAPCD and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The RAQS for the SDAB was initially adopted in 1991 and is updated every 3 years, most recently in 2016 (SDAPCD 2016c). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans (SANDAG 2017a, 2017b).

In December 2016, SDAPCD adopted the revised RAQS for the County. Since 2007, the San Diego region has reduced daily VOC emissions and NO_x emissions by 3.9% and 7.0%, respectively; SDAPCD expects to continue reductions through 2035 (SDAPCD 2016c). These reductions were achieved through implementation of six VOC control measures and three NO_x control measures adopted in SDAPCD's 2009 RAQS (SDAPCD 2009a); in addition, SDAPCD is considering additional measures, including three VOC measures and four control measures to reduce 0.3 daily tons of VOCs and 1.2 daily tons of NO_x, provided they are found to be feasible region-wide. In addition, SDAPCD has implemented nine incentive-based programs, has worked with SANDAG to implement regional transportation control measures, and has reaffirmed the state emission offset repeal.

In regard to particulate matter emissions reduction efforts, in December 2005, SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill 656 in San Diego County (Senate Bill 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluated the implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carryout and trackout removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

SDAPCD Rules and Regulations

As stated previously, SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD:

- **SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits any activity causing air contaminant emissions darker than 20% opacity for more than an aggregate of 3 minutes in any consecutive 60-minute time period. In addition, Rule 50 prohibits any diesel pile-driving hammer activity causing air contaminant emissions for a period or periods aggregating more than 4 minutes during the driving of a single pile (SDAPCD 1997).

- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976).
- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009b).
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015).

5 Regional and Local Air Quality

5.1 SDAB Attainment Designation

Pursuant to the 1990 CAA Amendments, EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. As previously discussed, these standards are set by EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable."

The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on the CAAQS rather than the NAAQS.

Table 2 summarizes SDAB's federal and state attainment designations for each of the criteria pollutants.

Table 2. SDAB Attainment Designation

Pollutant	Federal Designation	State Designation
O_3 (1-hour)	Attainment (maintenance)[a]	**Nonattainment**
O_3 (8-hour – 1997) (8-hour – 2008)	Attainment (maintenance) **Nonattainment (moderate)**	**Nonattainment**
CO	Unclassifiable/attainment[b]	Attainment
PM_{10}	Unclassifiable/attainment	**Nonattainment**
$PM_{2.5}$	Unclassifiable/attainment	**Nonattainment**
NO_2	Unclassifiable/attainment	Attainment
SO_2	Not designated[c]	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen sulfide	(No federal standard)	Unclassified
Visibility-reducing particles	(No federal standard)	Unclassified
Vinyl chloride	(No federal standard)	No designation

Sources: EPA 2021 (federal); CARB 2016b (state).
Definitions: attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify; unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.
Notes: SDAB = San Diego; O_3 = ozone; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide.

[a] The federal 1-hour standard of 0.12 parts per million (ppm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in SIPs.

[b] The western and central portions of the SDAB are designated attainment, while the eastern portion is designated unclassifiable/attainment.

[c] Federal designations for SO_2 are on hold by EPA(EPA 2016b).

5.2 Air Quality Monitoring Data

SDAPCD operates a network of ambient air monitoring stations throughout the County, which measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. SDAPCD monitors air quality conditions at 10 locations throughout the basin. The Camp Pendleton monitoring station represents the closest monitoring station to the Project site for concentrations for O_3, $PM_{2.5}$, and NO_2. The Escondido monitoring station is the closest monitoring station for CO. The closest monitoring station for SO_2 is the El Cajon monitoring station. The San Diego–Kearny Villa Road monitoring station is the closest station monitoring for PM_{10}. Ambient concentrations of pollutants from 2016 through 2018 are presented in Table 3. The number of days exceeding the O_3, PM_{10}, and $PM_{2.5}$ CAAQS and NAAQS is shown in Table 3. Air quality within the Project region was in compliance with both CAAQS and NAAQS for NO_2, CO, and SO_2 during this monitoring period.

Table 3. Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2018	2019	2020	2018	2019	2020
Ozone (O_3)										
Camp Pendleton	ppm	Maximum 1-hour concentration	State	0.09	0.084	0.075	0.094	0	0	0
	ppm	Maximum 8-hour concentration	State	0.070	0.069	0.064	0.074	0	0	3
			Federal	0.070	0.068	0.063	0.062	0	0	0
Nitrogen Dioxide (NO_2)										
Camp Pendleton	ppm	Maximum 1-hour concentration	State	0.18	0.048	0.053	0.058	*0*	*0*	*0*
			Federal	0.100	0.048	0053	0.058	*0*	*0*	*0*
	ppm	Annual concentration	State	0.030	0.006	0.006	0.006	0	0	0
			Federal	0.053	0.006	0.005	0.006	0	0	0
Carbon Monoxide (CO)										
Escondido-Rancho Carmel Drive	ppm	Maximum 1-hour concentration	State	20	1.9	4.1	3.3	0	0	0
			Federal	35	1.9	4.1	3.3	0	0	0
	ppm	Maximum 8-hour concentration	State	9.0	1.4	2.5	1.7	0	0	0
			Federal	9	1.4	2.5	1.7	0	0	0
Sulfur Dioxide (SO_2)										
El Cajon	ppm	Maximum 1-hour concentration	Federal	0.075	0.004	—	—	0	0	0
	ppm	Maximum 24-hour concentration	State	0.04	0.0004	—	—	0	0	0
			Federal	0.140	0.0004	—	—	0	0	0
	ppm	Annual concentration	Federal	0.030	0.0001	—	—	—	—	—

Table 3. Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2018	2019	2020	2018	2019	2020
Coarse Particulate Matter (PM_{10})[b]										
San Diego–Kearny Villa Road	µg/m³	Maximum 24-hour concentration	State	50	38	—	—	0 (0)	—	—
			Federal	150	38	—	—	0 (0)	—	—
	µg/m³	Annual concentration	State	20	18.4	—	—	—	—	—
Fine Particulate Matter ($PM_{2.5}$)[b]										
Camp Pendleton	µg/m³	Maximum 24-hour concentration	Federal	35	30.5	13.8	61.1	0 (0)	0 (0)	0 (0)
	µg/m³	Annual concentration	State	12	—	—	—	—	—	—
			Federal	12.0	—	—	9.5	—	—	—

Sources: CARB 2022; EPA 2022.

Notes: ppm = parts per million; — = not available or applicable; µg/m³ = micrograms per cubic meter; ND = insufficient data available to determine the value.

Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (http://www.epa.gov/airdata/) represent the highest concentrations experienced over a given year.

Exceedances of federal and state standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour O_3, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.

The Camp Pendleton monitoring station is located at 21441-W B Street, Oceanside, California.

The Escondido monitoring station is located at 600 East Valley Pkwy, Escondido, California.

The El Cajon monitoring station is located at 10537 Floyd Smith Drive, El Cajon, California.

The San Diego–Kearny Villa monitoring station is located at 6123A Kearny Villa Road, San Diego, California.

The San Diego – Rancho Carmel Drive monitoring station is located at 11403 Rancho Carmel Drive, San Diego, California.

[b] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

6 Thresholds of Significance

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), which provides guidance that a project would have a significant environmental impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether a project would have a significant impact on air quality.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the project would have a significant impact on air quality. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources. The SDAPCD sets forth quantitative emission thresholds below which a stationary source would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4 are exceeded.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that the Project's total emissions would or would not result in a significant impact to air quality.

Table 4. SDAPCD Air Quality Significance Thresholds

Construction Emissions			
Pollutant	**Total Emissions (Pounds per Day)**		
Coarse particulate matter (PM_{10})	100		
Fine particulate matter ($PM_{2.5}$)	55		
Oxides of nitrogen (NO_x)	250		
Sulfur oxides (SO_x)	250		
Carbon monoxide (CO)	550		
Volatile organic compounds (VOCs)	137*		
Operational Emissions			
	Total Emissions		
Pollutant	**Pounds per Hour**	**Pounds per Day**	**Tons per Year**
Coarse particulate matter (PM_{10})	—	100	15

Table 4. SDAPCD Air Quality Significance Thresholds

Fine particulate matter ($PM_{2.5}$)	—	55	10
Oxides of nitrogen (NO_x)	25	250	40
Sulfur oxides (SO_x)	25	250	40
Carbon monoxide (CO)	100	550	100
Lead and lead compounds	—	3.2	0.6
Volatile organic compounds (VOCs)	—	137[a]	13.7

Source: SDAPCD 2016a.
Notes: SDAPCD = San Diego Air Pollution Control District.
[a] VOC threshold based on the significance thresholds recommended by the Monterey Bay Unified Air Pollution Control District for the North Central Coast Air Basin, which has similar federal and state attainment status as the SDAB for O_3.

The thresholds listed in Table 4 represent screening-level thresholds that can be used to evaluate whether Project-related emissions would cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. In the event that emissions exceed these thresholds, modeling would be required to demonstrate that the Project's total air quality impacts result in ground-level concentrations that are below the CAAQS and NAAQS, including appropriate background levels. For non-attainment pollutants, if emissions exceed the thresholds shown in Table 4, the Project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person (SDAPCD 1976). A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

7 Impacts

7.1 Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Analysis

As stated in Section 4.3, Local, SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the NAAQS and CAAQS in the SDAB; specifically, the SIP and RAQS.[3] The federal O_3 maintenance plan, which is part of the SIP, was adopted in 2016. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated every 3 years (most recently in 2009). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by San Diego County and the cities in the County as part of the development of their general plans.

If a project proposes development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality. The General Plan Designation for the site is R-15/VC Q for two of the parcels and R-15 for the third and the zoning of the site is RD-M-Q/C-T- and RD-M-Q respectively. The proposed project is consistent with both the General Plan Land Use and Zoning for the property.

Implementation of the Project would result in an increase in housing of 86 residential units. The proposed project is consistent with the underlying land use and zoning for the project site. More specifically, the City of Carlsbad General Plan identifies the site as R-15, which is a residential zone that permits up to 15 dwelling units per acre (before the application of Density Bonus) and R-15/Visitor Commercial. The City's Zoning Map designates the site for both D-M/C-T, Commercial Tourist/Residential Density – Multiple and Residential Density – Multiple. The RD-M zone is intended to "implement the residential medium density (RM), residential medium-high density (RMH) and residential high density (RH) land use designations of the Carlsbad general plan." Therefore, the proposed mix of residential units totaling 86 units is consistent with the underlying uses anticipated for the project site and consistent with the provisions allowed under State Density Bonus Law.

Furthermore, the most recent Regional Housing Needs Assessment from SANDAG stated that Carlsbad needs to build 3,873 units from 2021 through 2029 (SANDAG 2020). The City is projected a deficit of 1,311 very-low, 784 low income units 749 moderate and 1,029 above-moderate income units (SANDAG 2020). The Project is expected to bring 86 units to market in 2025, including 13 low income units and 73 above moderate income units. which

[3] For the purpose of this discussion, the relevant federal air quality plan is the O_3 maintenance plan (SDAPCD 2016b). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

would be within SANDAG's growth projection for housing during the 6th Cycle planning horizon. Therefore, the Project would not conflict with SANDAG's regional growth forecast for the City.

Conclusion

The increase in the housing units and associated vehicle source emissions is not anticipated to result in air quality impacts that were not envisioned in the growth projections and RAQS, and this minor increase in residential units in the region would not obstruct or impede implementation of local air quality plans. Based on the analysis above, implementation of the Project would not result in development in excess of that anticipated in local plans or increases in population/housing growth beyond those contemplated by SANDAG. As such, vehicle trip generation and planned development for the Project are considered to be anticipated in the SIP and RAQS. Because the proposed land uses and associated vehicle trips are anticipated in local air quality plans, the Project would be consistent at a regional level with the underlying growth forecasts in the RAQS. Impacts would be **less than significant**.

7.2 Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SDAPCD develops and implements plans for future attainment of the NAAQS and CAAQS. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether the Project's individual emissions would have a cumulatively significant impact on air quality.

Construction Impacts

Analysis

Construction of the Project components would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site vendor trucks delivering construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

Emissions from the construction phase of Project components were estimated using the California Emissions Estimator Model (CalEEMod) Version 2020.4.0[4]. For the purposes of modeling, it was assumed that construction of the Project would begin in March 2023 and would last approximately 22 months.

[4] CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform to calculate construction and operational emissions from land use development projects. The model was developed for the California Air Pollution Control Officers Association in collaboration with multiple air districts across the state. Numerous lead agencies in the state, including SDAPCD, use CalEEMod to estimate greenhouse gas emissions in accordance with CEQA Guidelines Section 15064.4(a)(1).

Table 5 provides the construction timeline, potential phasing, construction equipment mix, and vehicle trips assumed for estimating Project-generated construction emissions. The construction schedule has been developed based on available information provided by the Project applicant, typical construction practices, and best engineering judgment. Construction phasing is intended to represent a schedule of anticipated activities for use in estimating potential Project-generated construction emissions.

Table 5. Construction Scenario Assumptions

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition	12	4	428	Concrete/Industrial Saws	1	8
				Excavator	3	8
				Rubber-tired dozers	2	8
Site preparation	10	4	0	Rubber-tired dozers	2	8
				Tractors/loaders/backhoes	2	8
Grading/Trenching/Site Work	16	4	6	Excavators	1	8
				Graders	1	8
				Rubber-tired dozers	1	8
				Tractors/loaders/backhoes	3	8
Building construction	40	12	0	Forklifts	1	8
				Cement Mortar Mixers	2	6
				Generator sets	1	8
				Tractors/loaders/backhoes	3	8
				Welders	1	8
Paving	20	0	0	Pavers	1	8
				Paving equipment	2	6
				Rollers	2	6
				Tractors/Loaders/Backhoes	1	8
				Air Compressors	1	6
Architectural coating	16	0	0	Air compressors	1	6

Note: See Appendix A for additional details.

The equipment mix assumptions were based on Project design documents, review of related documents, and CalEEMod default equipment, where appropriate. The equipment mix is meant to represent a reasonably conservative estimate of construction activity. For the analysis, it is generally assumed that heavy construction equipment would be operating at the site for approximately 8 hours per day, 5 days per week. Default assumptions provided in CalEEMod were used to determine worker trips and vendor truck trips for each potential construction phase. The default CalEEMod trip distance for construction vehicles was assumed, which was a one-way distance of 10.8 miles for worker trips, 7.3 miles for vendor truck trips, and a project specific value of 25 miles for haul truck trips.

Implementation of the Project would generate criteria air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Based on project specific information, 50 cubic yards of material export is expected from the construction of the project and included in the modeling analysis. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Construction of Project components would be subject to SDAPCD Rule 55 – Fugitive Dust Control. Compliance with Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) that may be generated during grading and construction activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites two times per day, depending on weather conditions.

Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior application/interior paint and other finishes, and application of asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD Rule 67.0.1 for Architectural Coatings.

Table 6 shows the estimated maximum unmitigated daily construction emissions associated with the conceptual construction phases of the Project. Complete details of the emissions calculations are provided in Appendix A of this document.

Table 6. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2023	1.42	20.39	35.26	0.06	6.05	3.10
2024	71.82	18.66	29.80	0.05	1.05	0.61
Maximum	*71.82*	*20.39*	*35.26*	*0.06*	*6.05*	*3.10*
SDAPCD threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District.
See Appendix A for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.

Conclusion

As shown in Table 6, daily construction emissions for the Project would not exceed SDAPCD's significance thresholds for VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. Therefore, the Project would result in a **less than significant** impact.

Operational Impacts

Analysis

Area

The area source category calculates direct sources of air pollutant emissions located at the Project site, including consumer product use, architectural coatings, and landscape maintenance equipment. This does not include the emissions associated with natural gas usage in space heating, water heating, and stoves as these are calculated

in the building energy use module. The Project will not have fireplaces or woodstoves. CalEEMod defaults were used for operational hours and number of days per year for all sources other than fireplace and woodstoves as they were not included in the modeling analysis.

Consumer products are various solvents used in non-industrial applications which emit VOCs during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics and toiletries. Consumer product VOC emissions are estimated in CalEEMod based on the floor area of residential and nonresidential buildings and on the default factor of pounds of VOC per building square foot per day. For parking lot land uses, CalEEMod estimates VOC emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of VOC per square foot per day. The CalEEMod default utilization rates and emission factors were assumed.

This VOC emissions associated with the reapplication rate and coating for each building surface type and parking surface was also estimated using CalEEMod. The reapplication rate is the percentage of the total surface area that is repainted each year. A default of 10% is used, meaning that 10% of the surface area is repainted each year (i.e., all surface areas are repainted once every 10 years). Daily emissions divide the annual rate by 365 days per year. It was assumed that the Project would comply with SDAPCD Rule 67.0.1 for Architectural Coatings.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers, as well as air compressors, generators, and pumps. The emissions associated from landscape equipment use were estimated using CalEEMod. The emission factors are multiplied by the number of summer days that represent the number of operational days.

Energy

As represented in CalEEMod, energy sources include emissions associated with natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gases in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site. CalEEMod default values for energy consumption for each land use were applied for the Project analysis. The energy use from residential land uses is calculated in CalEEMod based on the Residential Appliance Saturation Survey (CAPCOA 2021).

Mobile Sources (Motor Vehicles)

Following the completion of construction activities, the Project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile sources (vehicular traffic) as a result of the 86 additional residential units. The CalEEMod Version 2020.4.0 was used to estimate daily emissions from proposed vehicular sources (refer to Appendix A). CalEEMod default data, including temperature, trip characteristics, variable start information, emissions factors, and trip distances, were conservatively used for the model inputs. Project specific trip rates, increased residential density, and percent affordable housing was utilized from the Linscott Law & Greenspan VMT Analyses, May 18, 2022, LLG Ref. 3-22-3538. Emission factors representing the vehicle mix and emissions for 2025 were conservatively used to estimate emissions associated with vehicular sources. The 2025 operational year represents the first full year the Project would be operational.

Table 7 presents the maximum daily emissions associated with the operation of the Project after all phases of construction have been completed. Complete details of the emissions calculations are provided in Appendix A of this document. Emissions represent maximum of summer and winter. “Summer” emissions are representative of

the conditions that may occur during the O_3 season (May 1 to October 31), and "winter" emissions are representative of the conditions that may occur during the balance of the year (November 1 to April 30).

Stationary Source

The project would require a wastewater lift station for intermittent transfer of wastewater from the operation of the project. The lift station requires a wastewater pump and 15 horsepower (hp) engine. The lift station would normally be operated by and electric motor and would have a diesel engine as back up in the event electrical power is interrupted to the electric motor. The expected operation of the lift station is 1 hour per day in two 30-minute intervals over the course of the day. For worst case emission operating scenario, the total operation was modeled with diesel backup engine operating.

Table 7. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Area	4.61	0.08	7.10	<0.01	0.04	0.04
Energy	0.03	0.29	0.12	<0.01	0.02	0.02
Mobile	1.84	1.92	16.41	0.03	3.80	1.03
Stationary	0.02	0.13	0.12	<0.01	0.01	0.01
Total	**6.50**	**2.42**	**23.75**	**0.03**	**3.87**	**1.10**
SDAPCD threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District. <0.01 = reported value is less than 0.01.
See Appendix A for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.

As shown in Table 7, the maximum daily operational emissions would not exceed SDAPCD's thresholds for VOCs, CO, NO_x, SO_x, PM_{10}, or $PM_{2.5}$ during the operation of the Project.

Table 8 shows the annual operational emissions estimated for the Project.

Table 8. Estimated Annual Operational Criteria Air Pollutant Emissions

Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Tons per Year					
Area	0.82	0.01	0.64	<0.01	<0.01	<0.01
Energy	0.01	0.05	0.02	<0.01	<0.01	<0.01
Mobile	0.29	0.31	2.62	0.01	0.60	0.16
Stationary	<0.01	0.02	0.02	<0.01	<0.01	<0.01
Total	**1.12**	**0.39**	**3.30**	**0.01**	**0.60**	**0.16**
SDAPCD threshold	*13.7*	*40*	*100*	*40*	*15*	*10*
Threshold exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District. <0.01 = reported value is less than 0.01.

See Appendix A for complete results.

As shown in Table 8, the annual operations emissions for the Project do not exceed SDAPCD's significance thresholds for VOCs, CO, NO_x, SO_x, PM_{10}, or $PM_{2.5}$.

Conclusion

In analyzing cumulative impacts from a project, the analysis must specifically evaluate the project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If the project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the project components, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the project would only be considered to have a significant cumulative impact if its contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

Additionally, for the SDAB, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing cumulative operational emissions within the basin to ensure the SDAB continues to make progress toward NAAQS and CAAQS attainment status. As such, cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality if, in combination, they would conflict with or obstruct implementation of the RAQS. Similarly, individual projects that are inconsistent with the regional planning documents on which the RAQS is based would have the potential to result in cumulative impacts if they represent development beyond regional projections.

The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions associated with construction generally result in near-field impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SDAB. As shown in Tables 6 through 8, the emissions of all criteria pollutants from the Project's construction and operational activities would be below the significance levels. Construction would be short term and temporary in nature. Additionally, construction activities required for the implementation of Project components would be considered typical of a residential project and would not require atypical construction practices that would include high-emitting activities. Once construction is completed, construction-related emissions would cease. Operational emissions generated by the Project would not result in a significant impact. As such, the Project would result in less than significant impacts to air quality relative to operational emissions.

Regarding long-term cumulative operational emissions in relation to consistency with local air quality plans, the SIP and RAQS serve as the primary air quality planning documents for the state and SDAB, respectively. The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and by the County as part of the development of their general plans. Therefore, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. As discussed in Section 7.1 of this report, the Project is consistent with the SANDAG growth projections. Thus, it would be consistent at a regional level with the underlying growth forecasts in the SIP and RAQS.

As a result, the Project would not result in a cumulatively considerable contribution to regional O_3 concentrations or other criteria pollutant emissions. Cumulative impacts for construction and operation would be **less than significant** for the Project.

7.3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

Carbon Monoxide Hotspots

Analysis

Mobile-source impacts occur on two basic scales of motion. Regionally, Project-related travel will add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SDAB. Locally, Project traffic will be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the basin is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. To verify that the Project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted. The County's CO hotspot screening guidance (County of San Diego 2007) was followed to determine whether the Project would require a site-specific hotspot analysis. Per guidance, any project that would place receptors within 500 feet of a signalized intersection operating at or below LOS E (peak-hour trips exceeding 3,000 trips) must conduct a "hotspot" analysis for CO. Likewise, projects that will cause road intersections to operate at or below a LOS E (with intersection peak-hour trips exceeding 3,000) will also have to conduct a CO "hotspot" analysis. The nearest signalized intersection to the project is located at Ponto Rd. and Carlsbad Blvd and is over 800 feet from the Project site. Therefore, no hotspot analysis would be required based on the location of the project in relation to nearby intersections. The County recommends that a quantitative analysis of CO hotspots be performed for intersections that are operating at or below LOS E and have peak-hour trips exceeding 3,000 trips. The Project includes 86 residential units and based on CalEEMod modeling is expected to generate a low number of daily traffic and peak hour trips, more specifically, a maximum of 700 daily vehicle trips on Saturday and 630 daily trips on weekdays. The associated peak-hour trips would from the Project would be 40 and 48 for AM and PM peak hour trips, respectively. Therefore, it would not cause a measurable impact to the nearby intersections in the study area. The project would not create any significant traffic impacts, and a comprehensive traffic impact analysis for the proposed project would not be warranted.

Based on these considerations, the proposed project would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. Therefore, no CO hotspots analysis is required. Based on these considerations, the Project would result in a **less than significant** impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

In addition to impacts from criteria pollutants, Project impacts may include emissions of pollutants identified by the state and federal government as TACs or HAPs. The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks, and the associated health impacts to

sensitive receptors. The closest sensitive receptors would be any receptor located directly adjacent to the proposed alignments and associated facilities.

An HRA was performed to assess the impact of construction on sensitive receptors proximate to the Project site. This report includes an HRA associated with emissions from construction of the proposed Project based on the methodologies prescribed in the Office of Environmental Health Hazard Assessment (OEHHA) document, Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments (OEHHA Guidelines) (OEHHA 2015). To implement the OEHHA Guidelines based on proposed project information, the SDAPCD has developed a three-tiered approach where each successive tier is progressively more refined, with fewer conservative assumptions. The SDAPCD document, Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments (SDAPCD 2019), provides guidance with which to perform HRAs within the SDAB.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SDAPCD recommends a carcinogenic (cancer) risk threshold of 10 in one million. Additionally, some TACs increase non-cancer health risk due to long-term (chronic) exposures. The Chronic Hazard Index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The SDAPCD recommends a Chronic Hazard Index significance threshold of one (project increment). The exhaust from diesel engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts. No short-term, acute relative exposure level has been established for DPM; therefore, acute impacts of DPM are not addressed in this assessment. The HRA for the proposed project evaluated the risk to existing residents from diesel emissions from exhaust from on-site construction equipment and diesel haul and vendor trucks.

The dispersion modeling of DPM was performed using the American Meteorological Society/EPA Regulatory Model (AERMOD), which is the model SDAPCD requires for atmospheric dispersion of emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and simple and complex terrain (EPA 2021). For the proposed project, AERMOD was run with all sources emitting unit emissions (one gram per second) to obtain the "X/Q" values. X/Q is a dispersion factor that is the average effluent concentration normalized by source strength and is used as a way to simplify the representation of emissions from many sources. The X/Q values of ground-level concentrations were determined for construction emissions using AERMOD and the maximum concentrations determined for the one-hour and period-averaging periods. Principal parameters of this modeling are presented in Table 9.

Table 9. AERMOD Principal Parameters

Parameter	Details
Meteorological Data	The latest three-year meteorological data (2009–2013) for the McClellan-Palomar Airport Station from CARB were downloaded and then input to AERMOD.
Urban versus Rural Option	Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. However, based on the SDAPCD guidelines, the rural dispersion option was selected due to the proposed project's proximity to the ocean.

Table 9. AERMOD Principal Parameters

Parameter	Details
Terrain Characteristics	The terrain in the vicinity of the modeled project site is generally flat. The elevation of the modeled site is about 15 to 20 meters above sea level. Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate.
Elevation Data	Digital elevation data were imported into AERMOD, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a 30-meter resolution.
Emission Sources and Release Parameters	Air dispersion modeling of DPM from construction equipment was conducted using emissions estimated using the CalEEMod, assuming emissions would occur eight hours per day, five days per week. The proposed project area was modeled as a series of adjacent line-volume sources.
Source Release Characterizations	The source release height was assumed to be five meters with plume height and width of 2.33 and 11.63 meters per volume source with a release height of 5 meters. (EPA 2004).
Receptors	50-meter spacing discrete receptors were placed outside the construction area at nearby sensitive receptors surrounding the Project site.

Notes: AERMOD = American Meteorological Society/EPA Regulatory Model; SDAPCD = San Diego Air Pollution Control District; DPM = diesel particulate matter; CalEEMod = California Emissions Estimator Model.
See Appendix B for additional information.

Dispersion model plot files from AERMOD were then imported into CARB's Hotspots Analysis and Reporting Program Version 2 (Version 21081) to determine health risk, which requires peak one-hour emission rates and annual emission rates for all pollutants for each modeling source. The average construction DPM emissions was assumed for the entire construction duration. For the residential health risk, the HRA assumes exposure would start in the third trimester of pregnancy for a duration of 22 months. Based on the HRA included in Appendix B, the maximally exposed individual resident offsite would be located at locations west of the Project site. The results of the HRA are provided in Section 2.5, Impact Analysis, and detailed results are provided in Appendix B.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. Construction of the Project would occur over a period of 22 months year and would be periodic and short term within each phase. Following completion of construction activities, Project-related TAC emissions would cease. Additionally, while the operation of the project includes a wastewater lift station, the 15-hp pump engine is normally driven by an electric motor, with a diesel engine as backup used only when electric power is disrupted from the pump. Because of the infrequent operation of the lift station and even less frequent backup power use, TAC emissions during operation would be negligible. The closest sensitive receptor is a residence less than 100 feet to the west of the Project site. As such, a construction health risk analysis was performed for the Project as discussed below.

The HRA methodology was described above, and the detailed assessment is provided in Appendix B. Table 10 summarizes the results of the HRA for proposed project construction.

Table 10. Construction Activity Health Risk Assessment Results – Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Offsite				
Cancer Risk	Per Million	8.93	10.0	Less than Significant
HIC	Not Applicable	0.006	1.0	Less than Significant

Source: Appendix B.
Notes: CEQA = California Environmental Quality Act; HIC = Chronic Hazard Index.

The results of the HRA demonstrate that the TAC exposure from construction diesel exhaust emissions would result in cancer risk on site below the 10 in 1 million threshold, as well as Chronic Hazard Index less than 1.0. Therefore, TAC emissions from construction of the proposed Project would be below the applicable thresholds. Thus, impacts would be less than significant.

Health Effects of Criteria Air Pollutants

Analysis

Construction and operation of the Project would not result in emissions that exceed SDAPCD's emission thresholds for any criteria air pollutants. The SDAPCD thresholds are based on the SDAB complying with the NAAQS and CAAQS which are protective of public health; therefore, no adverse effects to human health would result from the Project. The following provides a general discussion of criteria air pollutants and their health effects.

Regarding VOCs, some VOCs would be associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in exceedances of SDAPCD's thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, SDAPCD Rule 67.0.1 restricts the VOC content of coatings for both construction and operational applications.

In addition, VOCs and NO_x are precursors to O_3, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by EPA as an attainment area for the 1-hour O_3 NAAQS standard and 1997 8-hour NAAQS standard). The health effects associated with O_3, as discussed in Section 3.1, Criteria Air Pollutants, are generally associated with reduced lung function. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SDAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 NAAQS and CAAQS tend to occur between April and October, when solar radiation is highest.

The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO_x emissions associated with Project construction could minimally contribute to regional O_3 concentrations and the associated health impacts. Due to the minimal contribution during construction and operation, as well as the existing good air quality in coastal San Diego areas, health impacts would be considered less than significant.

Similar to O_3, construction of the Project would not exceed thresholds for PM_{10} or $PM_{2.5}$ and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter. The Project would also not result in substantial

DPM emissions during construction and operation and therefore would not result in significant health effects related to DPM exposure. Due to the minimal contribution of particulate matter during construction and operation, health impacts would be considered less than significant.

Regarding NO_2, according to the construction emissions analysis, construction of the Project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. As described in Section 3.1, NO_2 and NO_x health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these operations would be relatively short term, and the Project would be required to comply with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction. Additionally, off-road construction equipment would be operating on various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the Project would not require any stationary emission sources that would create substantial, localized NO_x impacts.

Therefore, health impacts from Project-related criteria air pollutant emissions would be considered less than significant.

Conclusion

The VOC and NO_x emissions, as described previously, would minimally contribute to regional O_3 concentrations and the associated health effects. In addition to O_3, NO_x emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO_2. As shown in Table 3, the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected the Project's operational NO_x emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO "hotspots" were discussed previously as a less than significant impact. Thus, the Project's CO emissions would not contribute to significant health effects associated with this pollutant. PM_{10} and $PM_{2.5}$ would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter and would not obstruct the SDAB from coming into attainment for these pollutants and would not contribute to significant health effects associated with particulates. Therefore, overall health impacts associated with criteria air pollutants would be considered **less than significant**.

7.4 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction Impacts

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the Project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors are temporary and for the types of construction activities anticipated for Project components, would generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered **less than significant**.

Operational Impacts

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there are no quantitative or formulaic methodologies to determine if potential odors would have a significant impact. Examples of land uses and industrial operations that are commonly associated with odor complaints include agricultural uses, wastewater treatment plants, food processing facilities, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities. In addition to the odor source, the distance between the sensitive receptor(s) and the odor source, as well as the local meteorological conditions, are considerations in the potential for a project to frequently expose the public to objectionable odors. Although localized air quality impacts are focused on potential impacts to sensitive receptors, such as residences and schools, other land uses where people may congregate (e.g., workplaces) or uses with the intent to attract people (e.g., restaurants and visitor-serving accommodations) should also be considered in the evaluation of potential odor nuisance impacts. The Project would include a residential development, which is not expected to produce any nuisance odors; therefore, impacts related to odors caused by the Project would be **less than significant**.

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Appendix A

CalEEMod Outputs and Estimated Emissions

Ponto Townhomes Project - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Ponto Townhomes Project

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	49.83	1000sqft	1.14	49,830.00	0
Parking Lot	25.00	Space	0.22	10,000.00	0
Condo/Townhouse	86.00	Dwelling Unit	3.28	145,700.00	246

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per client provided information. Other apshalt surface represents interior roads.

Construction Phase - Per applicant provided construction schedule.

Off-road Equipment - Default values.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Default values.

Off-road Equipment - Default values

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant provided information.

Trips and VMT - Per applicant provided information.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

On-road Fugitive Dust - Default values.

Demolition - Per applicant provided information on existing buildings and paved surface to be removed.

Grading - Per applicant provided information.

Architectural Coating - Default values.

Vehicle Trips - Based on VMT analysis: LLG Ref. 3-22-3538.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Road Dust - Default values.

Woodstoves - Per applicant, no woodstoves or fireplaces.

Consumer Products - Default values.

Area Coating - Default values.

Landscape Equipment - Default values.

Energy Use - Default values.

Water And Wastewater - Default values.

Solid Waste - Default values.

Construction Off-road Equipment Mitigation - Project includes as a PDF Tier 4i for equipment 84hp and greater.

Fleet Mix - Default values.

Stationary Sources - Emergency Generators and Fire Pumps - Actual source is a wastewater lift station pump, fire pump used as a surrogate for calclation of emissions.

Stationary Sources - Emergency Generators and Fire Pumps EF - Default values.

Mobile Land Use Mitigation - Increase density and below market rate housing based on LLG VMT Study, LLG Ref. 3-22-3538.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

Ponto Townhomes Project - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	8.00	64.00
tblConstructionPhase	NumDays	230.00	294.00
tblConstructionPhase	NumDays	18.00	7.00
tblConstructionPhase	NumDays	18.00	65.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	47.30	0.00
tblFireplaces	NumberNoFireplace	8.60	0.00
tblFireplaces	NumberWood	30.10	0.00
tblGrading	MaterialExported	0.00	50.00
tblLandUse	LandUseSquareFeet	86,000.00	145,700.00
tblLandUse	LotAcreage	5.38	3.28
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	427.00	428.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	19.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	87.00	40.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	17.00	16.00
tblWoodstoves	NumberCatalytic	4.30	0.00
tblWoodstoves	NumberNoncatalytic	4.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1271	1.2364	1.1770	2.4600e-003	0.3417	0.0539	0.3957	0.1463	0.0502	0.1965	0.0000	217.4012	217.4012	0.0519	4.3900e-003	220.0073
2024	2.4668	1.3437	1.9086	3.3800e-003	0.0526	0.0586	0.1112	0.0142	0.0559	0.0700	0.0000	292.8136	292.8136	0.0481	4.9800e-003	295.5024
Maximum	**2.4668**	**1.3437**	**1.9086**	**3.3800e-003**	**0.3417**	**0.0586**	**0.3957**	**0.1463**	**0.0559**	**0.1965**	**0.0000**	**292.8136**	**292.8136**	**0.0519**	**4.9800e-003**	**295.5024**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0530	0.8315	1.3985	2.4600e-003	0.1661	7.1400e-003	0.1732	0.0692	7.1100e-003	0.0763	0.0000	217.4010	217.4010	0.0519	4.3900e-003	220.0071
2024	2.4093	1.2397	1.9946	3.3800e-003	0.0526	0.0154	0.0680	0.0142	0.0153	0.0295	0.0000	292.8133	292.8133	0.0481	4.9800e-003	295.5022
Maximum	**2.4093**	**1.2397**	**1.9946**	**3.3800e-003**	**0.1661**	**0.0154**	**0.1732**	**0.0692**	**0.0153**	**0.0763**	**0.0000**	**292.8133**	**292.8133**	**0.0519**	**4.9800e-003**	**295.5022**

Ponto Townhomes Project - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.07**	**19.72**	**-9.97**	**0.00**	**44.54**	**79.99**	**52.41**	**48.06**	**78.92**	**60.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-1-2023**	**5-31-2023**	0.3002	0.2001
3	**9-1-2023**	**11-30-2023**	0.8567	0.5280
4	**12-1-2023**	**2-29-2024**	0.4671	0.3851
5	**3-1-2024**	**5-31-2024**	0.3917	0.3475
6	**6-1-2024**	**8-31-2024**	0.4326	0.3877
7	**9-1-2024**	**9-30-2024**	0.1276	0.1132
		Highest	0.8567	0.5280

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Energy	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	164.4936	164.4936	7.4700e-003	1.8900e-003	165.2440
Mobile	0.3033	0.3373	2.8520	6.0600e-003	0.6695	4.7200e-003	0.6742	0.1787	4.4000e-003	0.1831	0.0000	574.3244	574.3244	0.0400	0.0254	582.9023
Stationary	4.4900e-003	0.0234	0.0216	2.0000e-005		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	2.0849	2.0849	2.9000e-004	0.0000	2.0922
Waste						0.0000	0.0000		0.0000	0.0000	8.0303	0.0000	8.0303	0.4746	0.0000	19.8948
Water						0.0000	0.0000		0.0000	0.0000	1.7777	27.4826	29.2603	0.1843	4.5100e-003	35.2122
Total	**1.1361**	**0.4213**	**3.5348**	**6.4500e-003**	**0.6695**	**0.0139**	**0.6834**	**0.1787**	**0.0136**	**0.1922**	**9.8080**	**769.4299**	**779.2379**	**0.7076**	**0.0318**	**806.4150**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Energy	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	164.4936	164.4936	7.4700e-003	1.8900e-003	165.2440
Mobile	0.2868	0.3094	2.6179	5.4500e-003	0.6004	4.2800e-003	0.6047	0.1602	3.9900e-003	0.1642	0.0000	516.5515	516.5515	0.0371	0.0234	524.4498
Stationary	4.4900e-003	0.0234	0.0216	2.0000e-005		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	2.0849	2.0849	2.9000e-004	0.0000	2.0922
Waste						0.0000	0.0000		0.0000	0.0000	8.0303	0.0000	8.0303	0.4746	0.0000	19.8948
Water						0.0000	0.0000		0.0000	0.0000	1.7777	27.4826	29.2603	0.1843	4.5100e-003	35.2122
Total	**1.1197**	**0.3933**	**3.3008**	**5.8400e-003**	**0.6004**	**0.0134**	**0.6139**	**0.1602**	**0.0132**	**0.1734**	**9.8080**	**711.6569**	**721.4649**	**0.7047**	**0.0298**	**747.9625**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.45**	**6.63**	**6.62**	**9.46**	**10.32**	**3.17**	**10.17**	**10.32**	**3.02**	**9.81**	**0.00**	**7.51**	**7.41**	**0.41**	**6.41**	**7.25**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2023	3/31/2023	5	23	
2	Site Preparation	Site Preparation	9/1/2023	9/11/2023	5	7	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Grading/Trenching/Site Work	Grading	9/12/2023	12/10/2023	5	64	
4	Building Construction	Building Construction	10/15/2023	11/28/2024	5	294	
5	Paving	Paving	6/15/2024	6/25/2024	5	7	
6	Architectural Coating	Architectural Coating	10/2/2024	12/31/2024	5	65	

Acres of Grading (Site Preparation Phase): 7

Acres of Grading (Grading Phase): 64

Acres of Paving: 1.36

Residential Indoor: 295,043; Residential Outdoor: 98,348; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,590 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Trenching/Site Work	Excavators	1	8.00	158	0.38
Grading/Trenching/Site Work	Graders	1	8.00	187	0.41
Grading/Trenching/Site Work	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Trenching/Site Work	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	6.00	78	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	12.00	4.00	428.00	10.80	7.30	25.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Trenching/Site Work	6	16.00	4.00	6.00	10.80	7.30	25.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0468	0.0000	0.0468	7.0900e-003	0.0000	7.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0261	0.2471	0.2259	4.5000e-004		0.0115	0.0115		0.0107	0.0107	0.0000	39.0909	39.0909	0.0110	0.0000	39.3646
Total	**0.0261**	**0.2471**	**0.2259**	**4.5000e-004**	**0.0468**	**0.0115**	**0.0583**	**7.0900e-003**	**0.0107**	**0.0178**	**0.0000**	**39.0909**	**39.0909**	**0.0110**	**0.0000**	**39.3646**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.4000e-004	0.0353	8.8700e-003	1.6000e-004	4.5800e-003	3.0000e-004	4.8800e-003	1.2600e-003	2.8000e-004	1.5400e-003	0.0000	15.9189	15.9189	8.0000e-004	2.5300e-003	16.6934
Vendor	5.0000e-005	2.0400e-003	7.2000e-004	1.0000e-005	3.1000e-004	1.0000e-005	3.2000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.9230	0.9230	3.0000e-005	1.3000e-004	0.9635
Worker	3.7000e-004	2.6000e-004	3.1500e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8867	0.8867	3.0000e-005	2.0000e-005	0.8946
Total	**9.6000e-004**	**0.0376**	**0.0127**	**1.8000e-004**	**6.0000e-003**	**3.2000e-004**	**6.3100e-003**	**1.6400e-003**	**3.0000e-004**	**1.9400e-003**	**0.0000**	**17.7285**	**17.7285**	**8.6000e-004**	**2.6800e-003**	**18.5516**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0211	0.0000	0.0211	3.1900e-003	0.0000	3.1900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2400e-003	0.1600	0.2814	4.5000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	39.0908	39.0908	0.0110	0.0000	39.3645
Total	**9.2400e-003**	**0.1600**	**0.2814**	**4.5000e-004**	**0.0211**	**2.0900e-003**	**0.0232**	**3.1900e-003**	**2.0900e-003**	**5.2800e-003**	**0.0000**	**39.0908**	**39.0908**	**0.0110**	**0.0000**	**39.3645**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.4000e-004	0.0353	8.8700e-003	1.6000e-004	4.5800e-003	3.0000e-004	4.8800e-003	1.2600e-003	2.8000e-004	1.5400e-003	0.0000	15.9189	15.9189	8.0000e-004	2.5300e-003	16.6934
Vendor	5.0000e-005	2.0400e-003	7.2000e-004	1.0000e-005	3.1000e-004	1.0000e-005	3.2000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.9230	0.9230	3.0000e-005	1.3000e-004	0.9635
Worker	3.7000e-004	2.6000e-004	3.1500e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8867	0.8867	3.0000e-005	2.0000e-005	0.8946
Total	**9.6000e-004**	**0.0376**	**0.0127**	**1.8000e-004**	**6.0000e-003**	**3.2000e-004**	**6.3100e-003**	**1.6400e-003**	**3.0000e-004**	**1.9400e-003**	**0.0000**	**17.7285**	**17.7285**	**8.6000e-004**	**2.6800e-003**	**18.5516**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0459	0.0000	0.0459	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8500e-003	0.0606	0.0374	8.0000e-005		2.7800e-003	2.7800e-003		2.5500e-003	2.5500e-003	0.0000	7.1668	7.1668	2.3200e-003	0.0000	7.2247
Total	**5.8500e-003**	**0.0606**	**0.0374**	**8.0000e-005**	**0.0459**	**2.7800e-003**	**0.0487**	**0.0236**	**2.5500e-003**	**0.0261**	**0.0000**	**7.1668**	**7.1668**	**2.3200e-003**	**0.0000**	**7.2247**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.2000e-004	2.2000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2809	0.2809	1.0000e-005	4.0000e-005	0.2933
Worker	9.0000e-005	7.0000e-005	8.0000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2249	0.2249	1.0000e-005	1.0000e-005	0.2269
Total	**1.1000e-004**	**6.9000e-004**	**1.0200e-003**	**0.0000**	**3.7000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.5058**	**0.5058**	**2.0000e-005**	**5.0000e-005**	**0.5201**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0206	0.0000	0.0206	0.0106	0.0000	0.0106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4600e-003	0.0252	0.0481	8.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	7.1668	7.1668	2.3200e-003	0.0000	7.2247
Total	**1.4600e-003**	**0.0252**	**0.0481**	**8.0000e-005**	**0.0206**	**1.3000e-004**	**0.0208**	**0.0106**	**1.3000e-004**	**0.0107**	**0.0000**	**7.1668**	**7.1668**	**2.3200e-003**	**0.0000**	**7.2247**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.2000e-004	2.2000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2809	0.2809	1.0000e-005	4.0000e-005	0.2933
Worker	9.0000e-005	7.0000e-005	8.0000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2249	0.2249	1.0000e-005	1.0000e-005	0.2269
Total	**1.1000e-004**	**6.9000e-004**	**1.0200e-003**	**0.0000**	**3.7000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.5058**	**0.5058**	**2.0000e-005**	**5.0000e-005**	**0.5201**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2267	0.0000	0.2267	0.1096	0.0000	0.1096	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0548	0.5740	0.4720	9.5000e-004		0.0248	0.0248		0.0228	0.0228	0.0000	83.3940	83.3940	0.0270	0.0000	84.0683
Total	**0.0548**	**0.5740**	**0.4720**	**9.5000e-004**	**0.2267**	**0.0248**	**0.2515**	**0.1096**	**0.0228**	**0.1324**	**0.0000**	**83.3940**	**83.3940**	**0.0270**	**0.0000**	**84.0683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.2000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2232	0.2232	1.0000e-005	4.0000e-005	0.2340
Vendor	1.5000e-004	5.6800e-003	2.0000e-003	3.0000e-005	8.5000e-004	3.0000e-005	8.8000e-004	2.5000e-004	3.0000e-005	2.8000e-004	0.0000	2.5683	2.5683	8.0000e-005	3.7000e-004	2.6812
Worker	1.3900e-003	9.6000e-004	0.0117	4.0000e-005	4.1100e-003	2.0000e-005	4.1300e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.2896	3.2896	1.0000e-004	9.0000e-005	3.3191
Total	**1.5500e-003**	**7.1400e-003**	**0.0138**	**7.0000e-005**	**5.0200e-003**	**5.0000e-005**	**5.0800e-003**	**1.3600e-003**	**5.0000e-005**	**1.4100e-003**	**0.0000**	**6.0811**	**6.0811**	**1.9000e-004**	**5.0000e-004**	**6.2342**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1020	0.0000	0.1020	0.0493	0.0000	0.0493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.3307	0.6077	9.5000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	83.3939	83.3939	0.0270	0.0000	84.0682
Total	**0.0166**	**0.3307**	**0.6077**	**9.5000e-004**	**0.1020**	**1.5500e-003**	**0.1035**	**0.0493**	**1.5500e-003**	**0.0509**	**0.0000**	**83.3939**	**83.3939**	**0.0270**	**0.0000**	**84.0682**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.2000e-004	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2232	0.2232	1.0000e-005	4.0000e-005	0.2340
Vendor	1.5000e-004	5.6800e-003	2.0000e-003	3.0000e-005	8.5000e-004	3.0000e-005	8.8000e-004	2.5000e-004	3.0000e-005	2.8000e-004	0.0000	2.5683	2.5683	8.0000e-005	3.7000e-004	2.6812
Worker	1.3900e-003	9.6000e-004	0.0117	4.0000e-005	4.1100e-003	2.0000e-005	4.1300e-003	1.0900e-003	2.0000e-005	1.1100e-003	0.0000	3.2896	3.2896	1.0000e-004	9.0000e-005	3.3191
Total	**1.5500e-003**	**7.1400e-003**	**0.0138**	**7.0000e-005**	**5.0200e-003**	**5.0000e-005**	**5.0800e-003**	**1.3600e-003**	**5.0000e-005**	**1.4100e-003**	**0.0000**	**6.0811**	**6.0811**	**1.9000e-004**	**5.0000e-004**	**6.2342**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0344	0.2926	0.3838	5.9000e-004		0.0144	0.0144		0.0137	0.0137	0.0000	49.7451	49.7451	0.0102	0.0000	50.0007
Total	**0.0344**	**0.2926**	**0.3838**	**5.9000e-004**		**0.0144**	**0.0144**		**0.0137**	**0.0137**	**0.0000**	**49.7451**	**49.7451**	**0.0102**	**0.0000**	**50.0007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9000e-004	0.0147	5.1700e-003	7.0000e-005	2.1900e-003	9.0000e-005	2.2800e-003	6.3000e-004	8.0000e-005	7.2000e-004	0.0000	6.6215	6.6215	2.0000e-004	9.6000e-004	6.9124
Worker	2.9800e-003	2.0600e-003	0.0251	8.0000e-005	8.8200e-003	5.0000e-005	8.8700e-003	2.3400e-003	4.0000e-005	2.3900e-003	0.0000	7.0676	7.0676	2.1000e-004	1.9000e-004	7.1308
Total	**3.3700e-003**	**0.0167**	**0.0303**	**1.5000e-004**	**0.0110**	**1.4000e-004**	**0.0112**	**2.9700e-003**	**1.2000e-004**	**3.1100e-003**	**0.0000**	**13.6890**	**13.6890**	**4.1000e-004**	**1.1500e-003**	**14.0431**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.2535	0.4034	5.9000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	49.7451	49.7451	0.0102	0.0000	50.0006
Total	**0.0197**	**0.2535**	**0.4034**	**5.9000e-004**		**2.8500e-003**	**2.8500e-003**		**2.8500e-003**	**2.8500e-003**	**0.0000**	**49.7451**	**49.7451**	**0.0102**	**0.0000**	**50.0006**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9000e-004	0.0147	5.1700e-003	7.0000e-005	2.1900e-003	9.0000e-005	2.2800e-003	6.3000e-004	8.0000e-005	7.2000e-004	0.0000	6.6215	6.6215	2.0000e-004	9.6000e-004	6.9124
Worker	2.9800e-003	2.0600e-003	0.0251	8.0000e-005	8.8200e-003	5.0000e-005	8.8700e-003	2.3400e-003	4.0000e-005	2.3900e-003	0.0000	7.0676	7.0676	2.1000e-004	1.9000e-004	7.1308
Total	**3.3700e-003**	**0.0167**	**0.0303**	**1.5000e-004**	**0.0110**	**1.4000e-004**	**0.0112**	**2.9700e-003**	**1.2000e-004**	**3.1100e-003**	**0.0000**	**13.6890**	**13.6890**	**4.1000e-004**	**1.1500e-003**	**14.0431**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1404	1.2005	1.6655	2.5600e-003		0.0545	0.0545		0.0519	0.0519	0.0000	216.2194	216.2194	0.0440	0.0000	217.3203
Total	**0.1404**	**1.2005**	**1.6655**	**2.5600e-003**		**0.0545**	**0.0545**		**0.0519**	**0.0519**	**0.0000**	**216.2194**	**216.2194**	**0.0440**	**0.0000**	**217.3203**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6200e-003	0.0632	0.0219	2.9000e-004	9.5200e-003	3.8000e-004	9.9000e-003	2.7500e-003	3.6000e-004	3.1100e-003	0.0000	28.2721	28.2721	8.9000e-004	4.1000e-003	29.5150
Worker	0.0122	8.0500e-003	0.1022	3.2000e-004	0.0383	2.0000e-004	0.0385	0.0102	1.9000e-004	0.0104	0.0000	29.9421	29.9421	8.2000e-004	7.9000e-004	30.1982
Total	**0.0138**	**0.0713**	**0.1242**	**6.1000e-004**	**0.0479**	**5.8000e-004**	**0.0484**	**0.0129**	**5.5000e-004**	**0.0135**	**0.0000**	**58.2142**	**58.2142**	**1.7100e-003**	**4.8900e-003**	**59.7132**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0832	1.0968	1.7511	2.5600e-003		0.0115	0.0115		0.0115	0.0115	0.0000	216.2191	216.2191	0.0440	0.0000	217.3200
Total	**0.0832**	**1.0968**	**1.7511**	**2.5600e-003**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**216.2191**	**216.2191**	**0.0440**	**0.0000**	**217.3200**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6200e-003	0.0632	0.0219	2.9000e-004	9.5200e-003	3.8000e-004	9.9000e-003	2.7500e-003	3.6000e-004	3.1100e-003	0.0000	28.2721	28.2721	8.9000e-004	4.1000e-003	29.5150
Worker	0.0122	8.0500e-003	0.1022	3.2000e-004	0.0383	2.0000e-004	0.0385	0.0102	1.9000e-004	0.0104	0.0000	29.9421	29.9421	8.2000e-004	7.9000e-004	30.1982
Total	**0.0138**	**0.0713**	**0.1242**	**6.1000e-004**	**0.0479**	**5.8000e-004**	**0.0484**	**0.0129**	**5.5000e-004**	**0.0135**	**0.0000**	**58.2142**	**58.2142**	**1.7100e-003**	**4.8900e-003**	**59.7132**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4100e-003	0.0313	0.0475	7.0000e-005		1.5300e-003	1.5300e-003		1.4300e-003	1.4300e-003	0.0000	6.3862	6.3862	1.8300e-003	0.0000	6.4318
Paving	1.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.1900e-003**	**0.0313**	**0.0475**	**7.0000e-005**		**1.5300e-003**	**1.5300e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**6.3862**	**6.3862**	**1.8300e-003**	**0.0000**	**6.4318**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.5000e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4385	0.4385	1.0000e-005	1.0000e-005	0.4422
Total	**1.8000e-004**	**1.2000e-004**	**1.5000e-003**	**0.0000**	**5.6000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4385**	**0.4385**	**1.0000e-005**	**1.0000e-005**	**0.4422**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1500e-003	0.0310	0.0479	7.0000e-005		1.3200e-003	1.3200e-003		1.2300e-003	1.2300e-003	0.0000	6.3862	6.3862	1.8300e-003	0.0000	6.4318
Paving	1.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9300e-003**	**0.0310**	**0.0479**	**7.0000e-005**		**1.3200e-003**	**1.3200e-003**		**1.2300e-003**	**1.2300e-003**	**0.0000**	**6.3862**	**6.3862**	**1.8300e-003**	**0.0000**	**6.4318**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.5000e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4385	0.4385	1.0000e-005	1.0000e-005	0.4422
Total	**1.8000e-004**	**1.2000e-004**	**1.5000e-003**	**0.0000**	**5.6000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4385**	**0.4385**	**1.0000e-005**	**1.0000e-005**	**0.4422**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**2.3059**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3200e-003	8.8000e-004	0.0111	3.0000e-005	4.1700e-003	2.0000e-005	4.1900e-003	1.1100e-003	2.0000e-005	1.1300e-003	0.0000	3.2573	3.2573	9.0000e-005	9.0000e-005	3.2852
Total	**1.3200e-003**	**8.8000e-004**	**0.0111**	**3.0000e-005**	**4.1700e-003**	**2.0000e-005**	**4.1900e-003**	**1.1100e-003**	**2.0000e-005**	**1.1300e-003**	**0.0000**	**3.2573**	**3.2573**	**9.0000e-005**	**9.0000e-005**	**3.2852**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**2.3059**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3200e-003	8.8000e-004	0.0111	3.0000e-005	4.1700e-003	2.0000e-005	4.1900e-003	1.1100e-003	2.0000e-005	1.1300e-003	0.0000	3.2573	3.2573	9.0000e-005	9.0000e-005	3.2852
Total	**1.3200e-003**	**8.8000e-004**	**0.0111**	**3.0000e-005**	**4.1700e-003**	**2.0000e-005**	**4.1900e-003**	**1.1100e-003**	**2.0000e-005**	**1.1300e-003**	**0.0000**	**3.2573**	**3.2573**	**9.0000e-005**	**9.0000e-005**	**3.2852**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2868	0.3094	2.6179	5.4500e-003	0.6004	4.2800e-003	0.6047	0.1602	3.9900e-003	0.1642	0.0000	516.5515	516.5515	0.0371	0.0234	524.4498
Unmitigated	0.3033	0.3373	2.8520	6.0600e-003	0.6695	4.7200e-003	0.6742	0.1787	4.4000e-003	0.1831	0.0000	574.3244	574.3244	0.0400	0.0254	582.9023

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	629.52	700.04	540.08	1,789,753	1,605,108
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	629.52	700.04	540.08	1,789,753	1,605,108

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Other Asphalt Surfaces	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Parking Lot	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	102.8879	102.8879	6.2900e-003	7.6000e-004	103.2723
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	102.8879	102.8879	6.2900e-003	7.6000e-004	103.2723
NaturalGas Mitigated	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717
NaturalGas Unmitigated	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.15445e+006	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**6.2200e-003**	**0.0532**	**0.0226**	**3.4000e-004**		**4.3000e-003**	**4.3000e-003**		**4.3000e-003**	**4.3000e-003**	**0.0000**	**61.6056**	**61.6056**	**1.1800e-003**	**1.1300e-003**	**61.9717**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.15445e+006	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**6.2200e-003**	**0.0532**	**0.0226**	**3.4000e-004**		**4.3000e-003**	**4.3000e-003**		**4.3000e-003**	**4.3000e-003**	**0.0000**	**61.6056**	**61.6056**	**1.1800e-003**	**1.1300e-003**	**61.9717**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	416569	102.0307	6.2400e-003	7.6000e-004	102.4118
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3500	0.8573	5.0000e-005	1.0000e-005	0.8605
Total		**102.8879**	**6.2900e-003**	**7.7000e-004**	**103.2723**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	416569	102.0307	6.2400e-003	7.6000e-004	102.4118
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3500	0.8573	5.0000e-005	1.0000e-005	0.8605
Total		**102.8879**	**6.2900e-003**	**7.7000e-004**	**103.2723**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Unmitigated	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0192	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Total	**0.8221**	**7.3500e-003**	**0.6386**	**3.0000e-005**		**3.5400e-003**	**3.5400e-003**		**3.5400e-003**	**3.5400e-003**	**0.0000**	**1.0444**	**1.0444**	**1.0000e-003**	**0.0000**	**1.0695**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0192	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Total	**0.8221**	**7.3500e-003**	**0.6386**	**3.0000e-005**		**3.5400e-003**	**3.5400e-003**		**3.5400e-003**	**3.5400e-003**	**0.0000**	**1.0444**	**1.0444**	**1.0000e-003**	**0.0000**	**1.0695**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	29.2603	0.1843	4.5100e-003	35.2122
Unmitigated	29.2603	0.1843	4.5100e-003	35.2122

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.60325 / 3.53248	29.2603	0.1843	4.5100e-003	35.2122
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**29.2603**	**0.1843**	**4.5100e-003**	**35.2122**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.60325 / 3.53248	29.2603	0.1843	4.5100e-003	35.2122
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**29.2603**	**0.1843**	**4.5100e-003**	**35.2122**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.0303	0.4746	0.0000	19.8948
Unmitigated	8.0303	0.4746	0.0000	19.8948

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	39.56	8.0303	0.4746	0.0000	19.8948
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**8.0303**	**0.4746**	**0.0000**	**19.8948**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	39.56	8.0303	0.4746	0.0000	19.8948
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**8.0303**	**0.4746**	**0.0000**	**19.8948**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	1	365	15	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Fire Pump - Diesel (11 - 25 HP)	4.4900e-003	0.0234	0.0216	2.0000e-005		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	2.0849	2.0849	2.9000e-004	0.0000	2.0922
Total	**4.4900e-003**	**0.0234**	**0.0216**	**2.0000e-005**		**1.3200e-003**	**1.3200e-003**		**1.3200e-003**	**1.3200e-003**	**0.0000**	**2.0849**	**2.0849**	**2.9000e-004**	**0.0000**	**2.0922**

11.0 Vegetation

Ponto Townhomes Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Ponto Townhomes Project

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	49.83	1000sqft	1.14	49,830.00	0
Parking Lot	25.00	Space	0.22	10,000.00	0
Condo/Townhouse	86.00	Dwelling Unit	3.28	145,700.00	246

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per client provided information. Other apshalt surface represents interior roads.

Construction Phase - Per applicant provided construction schedule.

Off-road Equipment - Default values.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Default values.

Off-road Equipment - Default values

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant provided information.

Trips and VMT - Per applicant provided information.

Ponto Townhomes Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

On-road Fugitive Dust - Default values.

Demolition - Per applicant provided information on existing buildings and paved surface to be removed.

Grading - Per applicant provided information.

Architectural Coating - Default values.

Vehicle Trips - Based on VMT analysis: LLG Ref. 3-22-3538.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Road Dust - Default values.

Woodstoves - Per applicant, no woodstoves or fireplaces.

Consumer Products - Default values.

Area Coating - Default values.

Landscape Equipment - Default values.

Energy Use - Default values.

Water And Wastewater - Default values.

Solid Waste - Default values.

Construction Off-road Equipment Mitigation - Project includes as a PDF Tier 4i for equipment 84hp and greater.

Fleet Mix - Default values.

Stationary Sources - Emergency Generators and Fire Pumps - Actual source is a wastewater lift station pump, fire pump used as a surrogate for calclation of emissions.

Stationary Sources - Emergency Generators and Fire Pumps EF - Default values.

Mobile Land Use Mitigation - Increase density and below market rate housing based on LLG VMT Study, LLG Ref. 3-22-3538.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

Ponto Townhomes Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	8.00	64.00
tblConstructionPhase	NumDays	230.00	294.00
tblConstructionPhase	NumDays	18.00	7.00
tblConstructionPhase	NumDays	18.00	65.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	47.30	0.00
tblFireplaces	NumberNoFireplace	8.60	0.00
tblFireplaces	NumberWood	30.10	0.00
tblGrading	MaterialExported	0.00	50.00
tblLandUse	LandUseSquareFeet	86,000.00	145,700.00
tblLandUse	LotAcreage	5.38	3.28
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	427.00	428.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	19.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	87.00	40.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	17.00	16.00
tblWoodstoves	NumberCatalytic	4.30	0.00
tblWoodstoves	NumberNoncatalytic	4.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Ponto Townhomes Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.1342	29.3707	30.3059	0.0585	13.2139	1.3042	14.0089	6.7646	1.2164	7.4960	0.0000	5,644.0356	5,644.0356	1.3610	0.2576	5,696.7379
2024	72.2831	19.5884	29.0360	0.0489	0.5742	0.9000	1.4741	0.1541	0.8473	1.0015	0.0000	4,700.9066	4,700.9066	1.0006	0.0480	4,740.2226
Maximum	**72.2831**	**29.3707**	**30.3059**	**0.0585**	**13.2139**	**1.3042**	**14.0089**	**6.7646**	**1.2164**	**7.4960**	**0.0000**	**5,644.0356**	**5,644.0356**	**1.3610**	**0.2576**	**5,696.7379**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.4075	20.3470	35.2571	0.0585	6.0063	0.2089	6.0458	3.0603	0.2077	3.0997	0.0000	5,644.0356	5,644.0356	1.3610	0.2576	5,696.7379
2024	71.8043	18.6271	29.8590	0.0489	0.5742	0.4784	1.0526	0.1541	0.4532	0.6073	0.0000	4,700.9066	4,700.9066	1.0006	0.0480	4,740.2226
Maximum	**71.8043**	**20.3470**	**35.2571**	**0.0585**	**6.0063**	**0.4784**	**6.0458**	**3.0603**	**0.4532**	**3.0997**	**0.0000**	**5,644.0356**	**5,644.0356**	**1.3610**	**0.2576**	**5,696.7379**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.92**	**20.39**	**-9.73**	**0.00**	**52.27**	**68.82**	**54.15**	**53.54**	**67.97**	**56.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988
Energy	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Mobile	1.9411	1.9322	17.4035	0.0387	4.2076	0.0290	4.2366	1.1208	0.0270	1.1479		4,038.6548	4,038.6548	0.2612	0.1650	4,094.3641
Stationary	0.0246	0.1284	0.1183	1.2000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003		12.5927	12.5927	1.7700e-003		12.6369
Total	**6.6128**	**2.4339**	**24.7418**	**0.0410**	**4.2076**	**0.0992**	**4.3068**	**1.1208**	**0.0972**	**1.2180**	**0.0000**	**4,436.1412**	**4,436.1412**	**0.2824**	**0.1719**	**4,494.4128**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988
Energy	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Mobile	1.8421	1.7721	15.9181	0.0348	3.7735	0.0263	3.7998	1.0052	0.0245	1.0297		3,631.8861	3,631.8861	0.2415	0.1518	3,683.1455
Stationary	0.0246	0.1284	0.1183	1.2000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003		12.5927	12.5927	1.7700e-003		12.6369
Total	**6.5138**	**2.2737**	**23.2564**	**0.0371**	**3.7735**	**0.0964**	**3.8700**	**1.0052**	**0.0947**	**1.0999**	**0.0000**	**4,029.3725**	**4,029.3725**	**0.2626**	**0.1586**	**4,083.1941**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.50**	**6.58**	**6.00**	**9.51**	**10.32**	**2.74**	**10.14**	**10.32**	**2.61**	**9.70**	**0.00**	**9.17**	**9.17**	**6.99**	**7.72**	**9.15**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2023	3/31/2023	5	23	
2	Site Preparation	Site Preparation	9/1/2023	9/11/2023	5	7	
3	Grading/Trenching/Site Work	Grading	9/12/2023	12/10/2023	5	64	
4	Building Construction	Building Construction	10/15/2023	11/28/2024	5	294	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Paving	Paving	6/15/2024	6/25/2024	5	7	
6	Architectural Coating	Architectural Coating	10/2/2024	12/31/2024	5	65	

Acres of Grading (Site Preparation Phase): 7

Acres of Grading (Grading Phase): 64

Acres of Paving: 1.36

Residential Indoor: 295,043; Residential Outdoor: 98,348; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,590 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Trenching/Site Work	Excavators	1	8.00	158	0.38
Grading/Trenching/Site Work	Graders	1	8.00	187	0.41
Grading/Trenching/Site Work	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Trenching/Site Work	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	12.00	4.00	428.00	10.80	7.30	25.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Trenching/Site Work	6	16.00	4.00	6.00	10.80	7.30	25.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0700	0.0000	4.0700	0.6163	0.0000	0.6163			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**4.0700**	**0.9975**	**5.0675**	**0.6163**	**0.9280**	**1.5443**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0478	2.9593	0.7679	0.0138	0.4067	0.0258	0.4325	0.1115	0.0247	0.1361		1,525.3725	1,525.3725	0.0771	0.2426	1,599.5909
Vendor	4.7800e-003	0.1715	0.0618	8.2000e-004	0.0271	1.0400e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.4188	88.4188	2.6800e-003	0.0128	92.3009
Worker	0.0328	0.0204	0.2888	8.7000e-004	0.0986	5.3000e-004	0.0991	0.0262	4.9000e-004	0.0266		89.1424	89.1424	2.3900e-003	2.1900e-003	89.8561
Total	**0.0854**	**3.1512**	**1.1185**	**0.0155**	**0.5324**	**0.0273**	**0.5598**	**0.1454**	**0.0262**	**0.1716**		**1,702.9337**	**1,702.9337**	**0.0822**	**0.2576**	**1,781.7479**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.8315	0.0000	1.8315	0.2774	0.0000	0.2774			0.0000			0.0000
Off-Road	0.8031	13.9100	24.4726	0.0388		0.1816	0.1816		0.1816	0.1816	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**0.8031**	**13.9100**	**24.4726**	**0.0388**	**1.8315**	**0.1816**	**2.0131**	**0.2774**	**0.1816**	**0.4589**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0478	2.9593	0.7679	0.0138	0.4067	0.0258	0.4325	0.1115	0.0247	0.1361		1,525.3725	1,525.3725	0.0771	0.2426	1,599.5909
Vendor	4.7800e-003	0.1715	0.0618	8.2000e-004	0.0271	1.0400e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.4188	88.4188	2.6800e-003	0.0128	92.3009
Worker	0.0328	0.0204	0.2888	8.7000e-004	0.0986	5.3000e-004	0.0991	0.0262	4.9000e-004	0.0266		89.1424	89.1424	2.3900e-003	2.1900e-003	89.8561
Total	**0.0854**	**3.1512**	**1.1185**	**0.0155**	**0.5324**	**0.0273**	**0.5598**	**0.1454**	**0.0262**	**0.1716**		**1,702.9337**	**1,702.9337**	**0.0822**	**0.2576**	**1,781.7479**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.1047	0.0000	13.1047	6.7350	0.0000	6.7350			0.0000			0.0000
Off-Road	1.6721	17.3257	10.6753	0.0233		0.7935	0.7935		0.7300	0.7300		2,257.1544	2,257.1544	0.7300		2,275.4046
Total	**1.6721**	**17.3257**	**10.6753**	**0.0233**	**13.1047**	**0.7935**	**13.8981**	**6.7350**	**0.7300**	**7.4650**		**2,257.1544**	**2,257.1544**	**0.7300**		**2,275.4046**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7800e-003	0.1715	0.0618	8.2000e-004	0.0271	1.0400e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.4188	88.4188	2.6800e-003	0.0128	92.3009
Worker	0.0274	0.0170	0.2406	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		74.2854	74.2854	1.9900e-003	1.8300e-003	74.8801
Total	**0.0321**	**0.1885**	**0.3024**	**1.5500e-003**	**0.1092**	**1.4800e-003**	**0.1107**	**0.0296**	**1.4100e-003**	**0.0310**		**162.7041**	**162.7041**	**4.6700e-003**	**0.0146**	**167.1810**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8971	0.0000	5.8971	3.0307	0.0000	3.0307			0.0000			0.0000
Off-Road	0.4181	7.2049	13.7453	0.0233		0.0380	0.0380		0.0380	0.0380	0.0000	2,257.1544	2,257.1544	0.7300		2,275.4046
Total	**0.4181**	**7.2049**	**13.7453**	**0.0233**	**5.8971**	**0.0380**	**5.9351**	**3.0307**	**0.0380**	**3.0687**	**0.0000**	**2,257.1544**	**2,257.1544**	**0.7300**		**2,275.4046**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7800e-003	0.1715	0.0618	8.2000e-004	0.0271	1.0400e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.4188	88.4188	2.6800e-003	0.0128	92.3009
Worker	0.0274	0.0170	0.2406	7.3000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		74.2854	74.2854	1.9900e-003	1.8300e-003	74.8801
Total	**0.0321**	**0.1885**	**0.3024**	**1.5500e-003**	**0.1092**	**1.4800e-003**	**0.1107**	**0.0296**	**1.4100e-003**	**0.0310**		**162.7041**	**162.7041**	**4.6700e-003**	**0.0146**	**167.1810**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0827	0.0000	7.0827	3.4248	0.0000	3.4248			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.0827**	**0.7749**	**7.8576**	**3.4248**	**0.7129**	**4.1377**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4000e-004	0.0149	3.8700e-003	7.0000e-005	2.0500e-003	1.3000e-004	2.1800e-003	5.6000e-004	1.2000e-004	6.9000e-004		7.6848	7.6848	3.9000e-004	1.2200e-003	8.0587
Vendor	4.7800e-003	0.1715	0.0618	8.2000e-004	0.0271	1.0400e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.4188	88.4188	2.6800e-003	0.0128	92.3009
Worker	0.0438	0.0272	0.3850	1.1600e-003	0.1314	7.1000e-004	0.1321	0.0349	6.5000e-004	0.0355		118.8566	118.8566	3.1800e-003	2.9300e-003	119.8081
Total	**0.0488**	**0.2136**	**0.4507**	**2.0500e-003**	**0.1606**	**1.8800e-003**	**0.1625**	**0.0432**	**1.7700e-003**	**0.0450**		**214.9601**	**214.9601**	**6.2500e-003**	**0.0170**	**220.1677**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.5200	10.3327	18.9906	0.0297		0.0484	0.0484		0.0484	0.0484	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**0.5200**	**10.3327**	**18.9906**	**0.0297**	**3.1872**	**0.0484**	**3.2356**	**1.5411**	**0.0484**	**1.5896**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4000e-004	0.0149	3.8700e-003	7.0000e-005	2.0500e-003	1.3000e-004	2.1800e-003	5.6000e-004	1.2000e-004	6.9000e-004		7.6848	7.6848	3.9000e-004	1.2200e-003	8.0587
Vendor	4.7800e-003	0.1715	0.0618	8.2000e-004	0.0271	1.0400e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.4188	88.4188	2.6800e-003	0.0128	92.3009
Worker	0.0438	0.0272	0.3850	1.1600e-003	0.1314	7.1000e-004	0.1321	0.0349	6.5000e-004	0.0355		118.8566	118.8566	3.1800e-003	2.9300e-003	119.8081
Total	**0.0488**	**0.2136**	**0.4507**	**2.0500e-003**	**0.1606**	**1.8800e-003**	**0.1625**	**0.0432**	**1.7700e-003**	**0.0450**		**214.9601**	**214.9601**	**6.2500e-003**	**0.0170**	**220.1677**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2509	10.6389	13.9566	0.0214		0.5225	0.5225		0.4971	0.4971		1,993.9867	1,993.9867	0.4097		2,004.2291
Total	**1.2509**	**10.6389**	**13.9566**	**0.0214**		**0.5225**	**0.5225**		**0.4971**	**0.4971**		**1,993.9867**	**1,993.9867**	**0.4097**		**2,004.2291**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0143	0.5144	0.1854	2.4600e-003	0.0813	3.1300e-003	0.0844	0.0234	3.0000e-003	0.0264		265.2564	265.2564	8.0400e-003	0.0384	276.9026
Worker	0.1094	0.0679	0.9626	2.9000e-003	0.3286	1.7700e-003	0.3304	0.0872	1.6300e-003	0.0888		297.1414	297.1414	7.9500e-003	7.3200e-003	299.5203
Total	**0.1237**	**0.5823**	**1.1479**	**5.3600e-003**	**0.4099**	**4.9000e-003**	**0.4148**	**0.1106**	**4.6300e-003**	**0.1152**		**562.3978**	**562.3978**	**0.0160**	**0.0457**	**576.4229**

Ponto Townhomes Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7150	9.2184	14.6679	0.0214		0.1037	0.1037		0.1037	0.1037	0.0000	1,993.9867	1,993.9867	0.4097		2,004.2291
Total	**0.7150**	**9.2184**	**14.6679**	**0.0214**		**0.1037**	**0.1037**		**0.1037**	**0.1037**	**0.0000**	**1,993.9867**	**1,993.9867**	**0.4097**		**2,004.2291**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0143	0.5144	0.1854	2.4600e-003	0.0813	3.1300e-003	0.0844	0.0234	3.0000e-003	0.0264		265.2564	265.2564	8.0400e-003	0.0384	276.9026
Worker	0.1094	0.0679	0.9626	2.9000e-003	0.3286	1.7700e-003	0.3304	0.0872	1.6300e-003	0.0888		297.1414	297.1414	7.9500e-003	7.3200e-003	299.5203
Total	**0.1237**	**0.5823**	**1.1479**	**5.3600e-003**	**0.4099**	**4.9000e-003**	**0.4148**	**0.1106**	**4.6300e-003**	**0.1152**		**562.3978**	**562.3978**	**0.0160**	**0.0457**	**576.4229**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1752	10.0463	13.9372	0.0214		0.4562	0.4562		0.4341	0.4341		1,994.4861	1,994.4861	0.4062		2,004.6412
Total	**1.1752**	**10.0463**	**13.9372**	**0.0214**		**0.4562**	**0.4562**		**0.4341**	**0.4341**		**1,994.4861**	**1,994.4861**	**0.4062**		**2,004.6412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0138	0.5109	0.1810	2.4100e-003	0.0813	3.1500e-003	0.0844	0.0234	3.0100e-003	0.0264		260.6317	260.6317	8.2200e-003	0.0377	272.0824
Worker	0.1027	0.0611	0.8995	2.8100e-003	0.3286	1.6800e-003	0.3303	0.0872	1.5500e-003	0.0887		289.6631	289.6631	7.2400e-003	6.8400e-003	291.8814
Total	**0.1165**	**0.5720**	**1.0805**	**5.2200e-003**	**0.4099**	**4.8300e-003**	**0.4147**	**0.1106**	**4.5600e-003**	**0.1151**		**550.2948**	**550.2948**	**0.0155**	**0.0446**	**563.9638**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6964	9.1786	14.6537	0.0214		0.0960	0.0960		0.0960	0.0960	0.0000	1,994.4861	1,994.4861	0.4062		2,004.6412
Total	**0.6964**	**9.1786**	**14.6537**	**0.0214**		**0.0960**	**0.0960**		**0.0960**	**0.0960**	**0.0000**	**1,994.4861**	**1,994.4861**	**0.4062**		**2,004.6412**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0138	0.5109	0.1810	2.4100e-003	0.0813	3.1500e-003	0.0844	0.0234	3.0100e-003	0.0264		260.6317	260.6317	8.2200e-003	0.0377	272.0824
Worker	0.1027	0.0611	0.8995	2.8100e-003	0.3286	1.6800e-003	0.3303	0.0872	1.5500e-003	0.0887		289.6631	289.6631	7.2400e-003	6.8400e-003	291.8814
Total	**0.1165**	**0.5720**	**1.0805**	**5.2200e-003**	**0.4099**	**4.8300e-003**	**0.4147**	**0.1106**	**4.5600e-003**	**0.1151**		**550.2948**	**550.2948**	**0.0155**	**0.0446**	**563.9638**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9740	8.9396	13.5686	0.0208		0.4381	0.4381		0.4079	0.4079		2,011.2941	2,011.2941	0.5753		2,025.6770
Paving	0.5090					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4830**	**8.9396**	**13.5686**	**0.0208**		**0.4381**	**0.4381**		**0.4079**	**0.4079**		**2,011.2941**	**2,011.2941**	**0.5753**		**2,025.6770**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0514	0.0306	0.4498	1.4000e-003	0.1643	8.4000e-004	0.1651	0.0436	7.8000e-004	0.0444		144.8316	144.8316	3.6200e-003	3.4200e-003	145.9407
Total	**0.0514**	**0.0306**	**0.4498**	**1.4000e-003**	**0.1643**	**8.4000e-004**	**0.1651**	**0.0436**	**7.8000e-004**	**0.0444**		**144.8316**	**144.8316**	**3.6200e-003**	**3.4200e-003**	**145.9407**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8997	8.8459	13.6750	0.0208		0.3767	0.3767		0.3518	0.3518	0.0000	2,011.2941	2,011.2941	0.5753		2,025.6770
Paving	0.5090					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4087**	**8.8459**	**13.6750**	**0.0208**		**0.3767**	**0.3767**		**0.3518**	**0.3518**	**0.0000**	**2,011.2941**	**2,011.2941**	**0.5753**		**2,025.6770**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0514	0.0306	0.4498	1.4000e-003	0.1643	8.4000e-004	0.1651	0.0436	7.8000e-004	0.0444		144.8316	144.8316	3.6200e-003	3.4200e-003	145.9407
Total	**0.0514**	**0.0306**	**0.4498**	**1.4000e-003**	**0.1643**	**8.4000e-004**	**0.1651**	**0.0436**	**7.8000e-004**	**0.0444**		**144.8316**	**144.8316**	**3.6200e-003**	**3.4200e-003**	**145.9407**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7695					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**70.9503**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0244	0.3598	1.1200e-003	0.1314	6.7000e-004	0.1321	0.0349	6.2000e-004	0.0355		115.8653	115.8653	2.9000e-003	2.7300e-003	116.7526
Total	**0.0411**	**0.0244**	**0.3598**	**1.1200e-003**	**0.1314**	**6.7000e-004**	**0.1321**	**0.0349**	**6.2000e-004**	**0.0355**		**115.8653**	**115.8653**	**2.9000e-003**	**2.7300e-003**	**116.7526**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7695					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**70.9503**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0244	0.3598	1.1200e-003	0.1314	6.7000e-004	0.1321	0.0349	6.2000e-004	0.0355		115.8653	115.8653	2.9000e-003	2.7300e-003	116.7526
Total	**0.0411**	**0.0244**	**0.3598**	**1.1200e-003**	**0.1314**	**6.7000e-004**	**0.1321**	**0.0349**	**6.2000e-004**	**0.0355**		**115.8653**	**115.8653**	**2.9000e-003**	**2.7300e-003**	**116.7526**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8421	1.7721	15.9181	0.0348	3.7735	0.0263	3.7998	1.0052	0.0245	1.0297		3,631.8861	3,631.8861	0.2415	0.1518	3,683.1455
Unmitigated	1.9411	1.9322	17.4035	0.0387	4.2076	0.0290	4.2366	1.1208	0.0270	1.1479		4,038.6548	4,038.6548	0.2612	0.1650	4,094.3641

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	629.52	700.04	540.08	1,789,753	1,605,108
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	629.52	700.04	540.08	1,789,753	1,605,108

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Other Asphalt Surfaces	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Parking Lot	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
NaturalGas Unmitigated	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131

Ponto Townhomes Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	3162.87	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0341**	**0.2915**	**0.1240**	**1.8600e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.1018**	**372.1018**	**7.1300e-003**	**6.8200e-003**	**374.3131**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	3.16287	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0341**	**0.2915**	**0.1240**	**1.8600e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.1018**	**372.1018**	**7.1300e-003**	**6.8200e-003**	**374.3131**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988
Unmitigated	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2135	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394		12.7919	12.7919	0.0123		13.0988
Total	**4.6130**	**0.0817**	**7.0960**	**3.8000e-004**		**0.0394**	**0.0394**		**0.0394**	**0.0394**	**0.0000**	**12.7919**	**12.7919**	**0.0123**	**0.0000**	**13.0988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2135	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394		12.7919	12.7919	0.0123		13.0988
Total	**4.6130**	**0.0817**	**7.0960**	**3.8000e-004**		**0.0394**	**0.0394**		**0.0394**	**0.0394**	**0.0000**	**12.7919**	**12.7919**	**0.0123**	**0.0000**	**13.0988**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	1	365	15	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (11 - 25 HP)	0.0246	0.1284	0.1183	1.2000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003		12.5927	12.5927	1.7700e-003		12.6369
Total	**0.0246**	**0.1284**	**0.1183**	**1.2000e-004**		**7.2400e-003**	**7.2400e-003**		**7.2400e-003**	**7.2400e-003**		**12.5927**	**12.5927**	**1.7700e-003**		**12.6369**

11.0 Vegetation

Ponto Townhomes Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Ponto Townhomes Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	49.83	1000sqft	1.14	49,830.00	0
Parking Lot	25.00	Space	0.22	10,000.00	0
Condo/Townhouse	86.00	Dwelling Unit	3.28	145,700.00	246

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per client provided information. Other apshalt surface represents interior roads.

Construction Phase - Per applicant provided construction schedule.

Off-road Equipment - Default values.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Default values.

Off-road Equipment - Default values

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant provided information.

Trips and VMT - Per applicant provided information.

Ponto Townhomes Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

On-road Fugitive Dust - Default values.

Demolition - Per applicant provided information on existing buildings and paved surface to be removed.

Grading - Per applicant provided information.

Architectural Coating - Default values.

Vehicle Trips - Based on VMT analysis: LLG Ref. 3-22-3538.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Road Dust - Default values.

Woodstoves - Per applicant, no woodstoves or fireplaces.

Consumer Products - Default values.

Area Coating - Default values.

Landscape Equipment - Default values.

Energy Use - Default values.

Water And Wastewater - Default values.

Solid Waste - Default values.

Construction Off-road Equipment Mitigation - Project includes as a PDF Tier 4i for equipment 84hp and greater.

Fleet Mix - Default values.

Stationary Sources - Emergency Generators and Fire Pumps - Actual source is a wastewater lift station pump, fire pump used as a surrogate for calclation of emissions.

Stationary Sources - Emergency Generators and Fire Pumps EF - Default values.

Mobile Land Use Mitigation - Increase density and below market rate housing based on LLG VMT Study, LLG Ref. 3-22-3538.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

Ponto Townhomes Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	8.00	64.00
tblConstructionPhase	NumDays	230.00	294.00
tblConstructionPhase	NumDays	18.00	7.00
tblConstructionPhase	NumDays	18.00	65.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	47.30	0.00
tblFireplaces	NumberNoFireplace	8.60	0.00
tblFireplaces	NumberWood	30.10	0.00
tblGrading	MaterialExported	0.00	50.00
tblLandUse	LandUseSquareFeet	86,000.00	145,700.00
tblLandUse	LotAcreage	5.38	3.28
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	427.00	428.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	19.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	87.00	40.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	17.00	16.00
tblWoodstoves	NumberCatalytic	4.30	0.00
tblWoodstoves	NumberNoncatalytic	4.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Ponto Townhomes Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.1466	29.4120	30.2464	0.0583	13.2139	1.3042	14.0089	6.7646	1.2164	7.4960	0.0000	5,621.6779	5,621.6779	1.3617	0.2580	5,674.6817
2024	72.2952	19.6214	28.9770	0.0487	0.5742	0.9000	1.4741	0.1541	0.8473	1.0015	0.0000	4,677.4575	4,677.4575	1.0013	0.0489	4,717.0654
Maximum	**72.2952**	**29.4120**	**30.2464**	**0.0583**	**13.2139**	**1.3042**	**14.0089**	**6.7646**	**1.2164**	**7.4960**	**0.0000**	**5,621.6779**	**5,621.6779**	**1.3617**	**0.2580**	**5,674.6817**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.4199	20.3884	35.1976	0.0583	6.0063	0.2090	6.0458	3.0603	0.2078	3.0997	0.0000	5,621.6778	5,621.6778	1.3617	0.2580	5,674.6817
2024	71.8164	18.6601	29.7999	0.0487	0.5742	0.4784	1.0526	0.1541	0.4532	0.6073	0.0000	4,677.4575	4,677.4575	1.0013	0.0489	4,717.0654
Maximum	**71.8164**	**20.3884**	**35.1976**	**0.0583**	**6.0063**	**0.4784**	**6.0458**	**3.0603**	**0.4532**	**3.0997**	**0.0000**	**5,621.6778**	**5,621.6778**	**1.3617**	**0.2580**	**5,674.6817**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.92**	**20.36**	**-9.75**	**0.00**	**52.27**	**68.82**	**54.15**	**53.54**	**67.97**	**56.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988
Energy	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Mobile	1.8952	2.0932	17.8573	0.0370	4.2076	0.0290	4.2366	1.1208	0.0271	1.1479		3,863.1563	3,863.1563	0.2758	0.1737	3,921.8221
Stationary	0.0246	0.1284	0.1183	1.2000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003		12.5927	12.5927	1.7700e-003		12.6369
Total	**6.5669**	**2.5948**	**25.1957**	**0.0393**	**4.2076**	**0.0992**	**4.3068**	**1.1208**	**0.0972**	**1.2180**	**0.0000**	**4,260.6427**	**4,260.6427**	**0.2970**	**0.1806**	**4,321.8708**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988
Energy	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Mobile	1.7934	1.9206	16.4102	0.0333	3.7735	0.0263	3.7998	1.0052	0.0245	1.0297		3,474.6807	3,474.6807	0.2559	0.1599	3,528.7260
Stationary	0.0246	0.1284	0.1183	1.2000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003		12.5927	12.5927	1.7700e-003		12.6369
Total	**6.4651**	**2.4222**	**23.7485**	**0.0356**	**3.7735**	**0.0965**	**3.8700**	**1.0052**	**0.0947**	**1.0999**	**0.0000**	**3,872.1671**	**3,872.1671**	**0.2771**	**0.1667**	**3,928.7747**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.55**	**6.65**	**5.74**	**9.46**	**10.32**	**2.74**	**10.14**	**10.32**	**2.61**	**9.70**	**0.00**	**9.12**	**9.12**	**6.70**	**7.67**	**9.10**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2023	3/31/2023	5	23	
2	Site Preparation	Site Preparation	9/1/2023	9/11/2023	5	7	
3	Grading/Trenching/Site Work	Grading	9/12/2023	12/10/2023	5	64	
4	Building Construction	Building Construction	10/15/2023	11/28/2024	5	294	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Paving	Paving	6/15/2024	6/25/2024	5	7	
6	Architectural Coating	Architectural Coating	10/2/2024	12/31/2024	5	65	

Acres of Grading (Site Preparation Phase): 7

Acres of Grading (Grading Phase): 64

Acres of Paving: 1.36

Residential Indoor: 295,043; Residential Outdoor: 98,348; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,590 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Trenching/Site Work	Excavators	1	8.00	158	0.38
Grading/Trenching/Site Work	Graders	1	8.00	187	0.41
Grading/Trenching/Site Work	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Trenching/Site Work	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	12.00	4.00	428.00	10.80	7.30	25.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Trenching/Site Work	6	16.00	4.00	6.00	10.80	7.30	25.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0700	0.0000	4.0700	0.6163	0.0000	0.6163			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**4.0700**	**0.9975**	**5.0675**	**0.6163**	**0.9280**	**1.5443**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0453	3.0759	0.7760	0.0138	0.4067	0.0258	0.4326	0.1115	0.0247	0.1362		1,526.5678	1,526.5678	0.0770	0.2428	1,600.8421
Vendor	4.6500e-003	0.1787	0.0637	8.2000e-004	0.0271	1.0500e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.5445	88.5445	2.6700e-003	0.0128	92.4352
Worker	0.0356	0.0229	0.2744	8.2000e-004	0.0986	5.3000e-004	0.0991	0.0262	4.9000e-004	0.0266		84.2424	84.2424	2.5400e-003	2.3700e-003	85.0133
Total	**0.0855**	**3.2776**	**1.1140**	**0.0155**	**0.5324**	**0.0274**	**0.5598**	**0.1454**	**0.0262**	**0.1716**		**1,699.3547**	**1,699.3547**	**0.0822**	**0.2580**	**1,778.2906**

Ponto Townhomes Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.8315	0.0000	1.8315	0.2774	0.0000	0.2774			0.0000			0.0000
Off-Road	0.8031	13.9100	24.4726	0.0388		0.1816	0.1816		0.1816	0.1816	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**0.8031**	**13.9100**	**24.4726**	**0.0388**	**1.8315**	**0.1816**	**2.0131**	**0.2774**	**0.1816**	**0.4589**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0453	3.0759	0.7760	0.0138	0.4067	0.0258	0.4326	0.1115	0.0247	0.1362		1,526.5678	1,526.5678	0.0770	0.2428	1,600.8421
Vendor	4.6500e-003	0.1787	0.0637	8.2000e-004	0.0271	1.0500e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.5445	88.5445	2.6700e-003	0.0128	92.4352
Worker	0.0356	0.0229	0.2744	8.2000e-004	0.0986	5.3000e-004	0.0991	0.0262	4.9000e-004	0.0266		84.2424	84.2424	2.5400e-003	2.3700e-003	85.0133
Total	**0.0855**	**3.2776**	**1.1140**	**0.0155**	**0.5324**	**0.0274**	**0.5598**	**0.1454**	**0.0262**	**0.1716**		**1,699.3547**	**1,699.3547**	**0.0822**	**0.2580**	**1,778.2906**

Ponto Townhomes Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.1047	0.0000	13.1047	6.7350	0.0000	6.7350			0.0000			0.0000
Off-Road	1.6721	17.3257	10.6753	0.0233		0.7935	0.7935		0.7300	0.7300		2,257.1544	2,257.1544	0.7300		2,275.4046
Total	**1.6721**	**17.3257**	**10.6753**	**0.0233**	**13.1047**	**0.7935**	**13.8981**	**6.7350**	**0.7300**	**7.4650**		**2,257.1544**	**2,257.1544**	**0.7300**		**2,275.4046**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6500e-003	0.1787	0.0637	8.2000e-004	0.0271	1.0500e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.5445	88.5445	2.6700e-003	0.0128	92.4352
Worker	0.0297	0.0191	0.2287	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		70.2020	70.2020	2.1200e-003	1.9800e-003	70.8444
Total	**0.0343**	**0.1978**	**0.2923**	**1.5100e-003**	**0.1092**	**1.4900e-003**	**0.1107**	**0.0296**	**1.4100e-003**	**0.0310**		**158.7465**	**158.7465**	**4.7900e-003**	**0.0148**	**163.2796**

Ponto Townhomes Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8971	0.0000	5.8971	3.0307	0.0000	3.0307			0.0000			0.0000
Off-Road	0.4181	7.2049	13.7453	0.0233		0.0380	0.0380		0.0380	0.0380	0.0000	2,257.1544	2,257.1544	0.7300		2,275.4046
Total	**0.4181**	**7.2049**	**13.7453**	**0.0233**	**5.8971**	**0.0380**	**5.9351**	**3.0307**	**0.0380**	**3.0687**	**0.0000**	**2,257.1544**	**2,257.1544**	**0.7300**		**2,275.4046**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6500e-003	0.1787	0.0637	8.2000e-004	0.0271	1.0500e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.5445	88.5445	2.6700e-003	0.0128	92.4352
Worker	0.0297	0.0191	0.2287	6.9000e-004	0.0822	4.4000e-004	0.0826	0.0218	4.1000e-004	0.0222		70.2020	70.2020	2.1200e-003	1.9800e-003	70.8444
Total	**0.0343**	**0.1978**	**0.2923**	**1.5100e-003**	**0.1092**	**1.4900e-003**	**0.1107**	**0.0296**	**1.4100e-003**	**0.0310**		**158.7465**	**158.7465**	**4.7900e-003**	**0.0148**	**163.2796**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0827	0.0000	7.0827	3.4248	0.0000	3.4248			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.0827**	**0.7749**	**7.8576**	**3.4248**	**0.7129**	**4.1377**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3000e-004	0.0155	3.9100e-003	7.0000e-005	2.0500e-003	1.3000e-004	2.1800e-003	5.6000e-004	1.2000e-004	6.9000e-004		7.6908	7.6908	3.9000e-004	1.2200e-003	8.0650
Vendor	4.6500e-003	0.1787	0.0637	8.2000e-004	0.0271	1.0500e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.5445	88.5445	2.6700e-003	0.0128	92.4352
Worker	0.0474	0.0306	0.3659	1.1000e-003	0.1314	7.1000e-004	0.1321	0.0349	6.5000e-004	0.0355		112.3233	112.3233	3.3900e-003	3.1600e-003	113.3511
Total	**0.0523**	**0.2248**	**0.4334**	**1.9900e-003**	**0.1606**	**1.8900e-003**	**0.1625**	**0.0432**	**1.7700e-003**	**0.0450**		**208.5585**	**208.5585**	**6.4500e-003**	**0.0172**	**213.8513**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.5200	10.3327	18.9906	0.0297		0.0484	0.0484		0.0484	0.0484	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**0.5200**	**10.3327**	**18.9906**	**0.0297**	**3.1872**	**0.0484**	**3.2356**	**1.5411**	**0.0484**	**1.5896**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3000e-004	0.0155	3.9100e-003	7.0000e-005	2.0500e-003	1.3000e-004	2.1800e-003	5.6000e-004	1.2000e-004	6.9000e-004		7.6908	7.6908	3.9000e-004	1.2200e-003	8.0650
Vendor	4.6500e-003	0.1787	0.0637	8.2000e-004	0.0271	1.0500e-003	0.0281	7.8000e-003	1.0000e-003	8.8000e-003		88.5445	88.5445	2.6700e-003	0.0128	92.4352
Worker	0.0474	0.0306	0.3659	1.1000e-003	0.1314	7.1000e-004	0.1321	0.0349	6.5000e-004	0.0355		112.3233	112.3233	3.3900e-003	3.1600e-003	113.3511
Total	**0.0523**	**0.2248**	**0.4334**	**1.9900e-003**	**0.1606**	**1.8900e-003**	**0.1625**	**0.0432**	**1.7700e-003**	**0.0450**		**208.5585**	**208.5585**	**6.4500e-003**	**0.0172**	**213.8513**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2509	10.6389	13.9566	0.0214		0.5225	0.5225		0.4971	0.4971		1,993.9867	1,993.9867	0.4097		2,004.2291
Total	**1.2509**	**10.6389**	**13.9566**	**0.0214**		**0.5225**	**0.5225**		**0.4971**	**0.4971**		**1,993.9867**	**1,993.9867**	**0.4097**		**2,004.2291**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5361	0.1910	2.4600e-003	0.0813	3.1500e-003	0.0844	0.0234	3.0100e-003	0.0264		265.6335	265.6335	8.0000e-003	0.0385	277.3056
Worker	0.1186	0.0764	0.9147	2.7400e-003	0.3286	1.7700e-003	0.3304	0.0872	1.6300e-003	0.0888		280.8081	280.8081	8.4700e-003	7.9100e-003	283.3777
Total	**0.1326**	**0.6125**	**1.1056**	**5.2000e-003**	**0.4099**	**4.9200e-003**	**0.4148**	**0.1106**	**4.6400e-003**	**0.1152**		**546.4416**	**546.4416**	**0.0165**	**0.0464**	**560.6833**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7150	9.2184	14.6679	0.0214		0.1037	0.1037		0.1037	0.1037	0.0000	1,993.9867	1,993.9867	0.4097		2,004.2291
Total	**0.7150**	**9.2184**	**14.6679**	**0.0214**		**0.1037**	**0.1037**		**0.1037**	**0.1037**	**0.0000**	**1,993.9867**	**1,993.9867**	**0.4097**		**2,004.2291**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0139	0.5361	0.1910	2.4600e-003	0.0813	3.1500e-003	0.0844	0.0234	3.0100e-003	0.0264		265.6335	265.6335	8.0000e-003	0.0385	277.3056
Worker	0.1186	0.0764	0.9147	2.7400e-003	0.3286	1.7700e-003	0.3304	0.0872	1.6300e-003	0.0888		280.8081	280.8081	8.4700e-003	7.9100e-003	283.3777
Total	**0.1326**	**0.6125**	**1.1056**	**5.2000e-003**	**0.4099**	**4.9200e-003**	**0.4148**	**0.1106**	**4.6400e-003**	**0.1152**		**546.4416**	**546.4416**	**0.0165**	**0.0464**	**560.6833**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1752	10.0463	13.9372	0.0214		0.4562	0.4562		0.4341	0.4341		1,994.4861	1,994.4861	0.4062		2,004.6412
Total	**1.1752**	**10.0463**	**13.9372**	**0.0214**		**0.4562**	**0.4562**		**0.4341**	**0.4341**		**1,994.4861**	**1,994.4861**	**0.4062**		**2,004.6412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0134	0.5325	0.1866	2.4100e-003	0.0813	3.1600e-003	0.0844	0.0234	3.0300e-003	0.0264		261.0128	261.0128	8.1800e-003	0.0378	272.4886
Worker	0.1117	0.0687	0.8564	2.6500e-003	0.3286	1.6800e-003	0.3303	0.0872	1.5500e-003	0.0887		273.7763	273.7763	7.7300e-003	7.3900e-003	276.1724
Total	**0.1251**	**0.6012**	**1.0430**	**5.0600e-003**	**0.4099**	**4.8400e-003**	**0.4147**	**0.1106**	**4.5800e-003**	**0.1151**		**534.7891**	**534.7891**	**0.0159**	**0.0452**	**548.6610**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6964	9.1786	14.6537	0.0214		0.0960	0.0960		0.0960	0.0960	0.0000	1,994.4861	1,994.4861	0.4062		2,004.6412
Total	**0.6964**	**9.1786**	**14.6537**	**0.0214**		**0.0960**	**0.0960**		**0.0960**	**0.0960**	**0.0000**	**1,994.4861**	**1,994.4861**	**0.4062**		**2,004.6412**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0134	0.5325	0.1866	2.4100e-003	0.0813	3.1600e-003	0.0844	0.0234	3.0300e-003	0.0264		261.0128	261.0128	8.1800e-003	0.0378	272.4886
Worker	0.1117	0.0687	0.8564	2.6500e-003	0.3286	1.6800e-003	0.3303	0.0872	1.5500e-003	0.0887		273.7763	273.7763	7.7300e-003	7.3900e-003	276.1724
Total	**0.1251**	**0.6012**	**1.0430**	**5.0600e-003**	**0.4099**	**4.8400e-003**	**0.4147**	**0.1106**	**4.5800e-003**	**0.1151**		**534.7891**	**534.7891**	**0.0159**	**0.0452**	**548.6610**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9740	8.9396	13.5686	0.0208		0.4381	0.4381		0.4079	0.4079		2,011.2941	2,011.2941	0.5753		2,025.6770
Paving	0.5090					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4830**	**8.9396**	**13.5686**	**0.0208**		**0.4381**	**0.4381**		**0.4079**	**0.4079**		**2,011.2941**	**2,011.2941**	**0.5753**		**2,025.6770**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0344	0.4282	1.3300e-003	0.1643	8.4000e-004	0.1651	0.0436	7.8000e-004	0.0444		136.8882	136.8882	3.8600e-003	3.7000e-003	138.0862
Total	**0.0559**	**0.0344**	**0.4282**	**1.3300e-003**	**0.1643**	**8.4000e-004**	**0.1651**	**0.0436**	**7.8000e-004**	**0.0444**		**136.8882**	**136.8882**	**3.8600e-003**	**3.7000e-003**	**138.0862**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8997	8.8459	13.6750	0.0208		0.3767	0.3767		0.3518	0.3518	0.0000	2,011.2941	2,011.2941	0.5753		2,025.6770
Paving	0.5090					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4087**	**8.8459**	**13.6750**	**0.0208**		**0.3767**	**0.3767**		**0.3518**	**0.3518**	**0.0000**	**2,011.2941**	**2,011.2941**	**0.5753**		**2,025.6770**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0559	0.0344	0.4282	1.3300e-003	0.1643	8.4000e-004	0.1651	0.0436	7.8000e-004	0.0444		136.8882	136.8882	3.8600e-003	3.7000e-003	138.0862
Total	**0.0559**	**0.0344**	**0.4282**	**1.3300e-003**	**0.1643**	**8.4000e-004**	**0.1651**	**0.0436**	**7.8000e-004**	**0.0444**		**136.8882**	**136.8882**	**3.8600e-003**	**3.7000e-003**	**138.0862**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7695					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**70.9503**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0447	0.0275	0.3426	1.0600e-003	0.1314	6.7000e-004	0.1321	0.0349	6.2000e-004	0.0355		109.5105	109.5105	3.0900e-003	2.9600e-003	110.4690
Total	**0.0447**	**0.0275**	**0.3426**	**1.0600e-003**	**0.1314**	**6.7000e-004**	**0.1321**	**0.0349**	**6.2000e-004**	**0.0355**		**109.5105**	**109.5105**	**3.0900e-003**	**2.9600e-003**	**110.4690**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7695					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**70.9503**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0447	0.0275	0.3426	1.0600e-003	0.1314	6.7000e-004	0.1321	0.0349	6.2000e-004	0.0355		109.5105	109.5105	3.0900e-003	2.9600e-003	110.4690
Total	**0.0447**	**0.0275**	**0.3426**	**1.0600e-003**	**0.1314**	**6.7000e-004**	**0.1321**	**0.0349**	**6.2000e-004**	**0.0355**		**109.5105**	**109.5105**	**3.0900e-003**	**2.9600e-003**	**110.4690**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Integrate Below Market Rate Housing

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7934	1.9206	16.4102	0.0333	3.7735	0.0263	3.7998	1.0052	0.0245	1.0297		3,474.6807	3,474.6807	0.2559	0.1599	3,528.7260
Unmitigated	1.8952	2.0932	17.8573	0.0370	4.2076	0.0290	4.2366	1.1208	0.0271	1.1479		3,863.1563	3,863.1563	0.2758	0.1737	3,921.8221

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	629.52	700.04	540.08	1,789,753	1,605,108
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	629.52	700.04	540.08	1,789,753	1,605,108

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Other Asphalt Surfaces	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Parking Lot	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
NaturalGas Unmitigated	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	3162.87	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0341**	**0.2915**	**0.1240**	**1.8600e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.1018**	**372.1018**	**7.1300e-003**	**6.8200e-003**	**374.3131**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	3.16287	0.0341	0.2915	0.1240	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.1018	372.1018	7.1300e-003	6.8200e-003	374.3131
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0341**	**0.2915**	**0.1240**	**1.8600e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.1018**	**372.1018**	**7.1300e-003**	**6.8200e-003**	**374.3131**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988
Unmitigated	4.6130	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394	0.0000	12.7919	12.7919	0.0123	0.0000	13.0988

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2135	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394		12.7919	12.7919	0.0123		13.0988
Total	**4.6130**	**0.0817**	**7.0960**	**3.8000e-004**		**0.0394**	**0.0394**		**0.0394**	**0.0394**	**0.0000**	**12.7919**	**12.7919**	**0.0123**	**0.0000**	**13.0988**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2135	0.0817	7.0960	3.8000e-004		0.0394	0.0394		0.0394	0.0394		12.7919	12.7919	0.0123		13.0988
Total	**4.6130**	**0.0817**	**7.0960**	**3.8000e-004**		**0.0394**	**0.0394**		**0.0394**	**0.0394**	**0.0000**	**12.7919**	**12.7919**	**0.0123**	**0.0000**	**13.0988**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	1	365	15	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Fire Pump - Diesel (11 - 25 HP)	0.0246	0.1284	0.1183	1.2000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003		12.5927	12.5927	1.7700e-003		12.6369
Total	**0.0246**	**0.1284**	**0.1183**	**1.2000e-004**		**7.2400e-003**	**7.2400e-003**		**7.2400e-003**	**7.2400e-003**		**12.5927**	**12.5927**	**1.7700e-003**		**12.6369**

11.0 Vegetation

HRA

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	49.83	1000sqft	1.14	49,830.00	0
Parking Lot	25.00	Space	0.22	10,000.00	0
Condo/Townhouse	86.00	Dwelling Unit	3.28	145,700.00	246

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per client provided information. Other apshalt surface represents interior roads.

Construction Phase - Per applicant provided construction schedule.

Off-road Equipment - Default values.

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Default values.

Off-road Equipment - Default values

Off-road Equipment - Per applicant provided information.

Off-road Equipment - Per applicant provided information.

Trips and VMT - Per applicant provided information.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

On-road Fugitive Dust - Default values.

Demolition - Per applicant provided information on existing buildings and paved surface to be removed.

Grading - Per applicant provided information.

Architectural Coating - Default values.

Vehicle Trips - Default values.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Vehicle Emission Factors - Default values.

Road Dust - Default values.

Woodstoves - Per applicant, no woodstoves or fireplaces.

Consumer Products - Default values.

Area Coating - Default values.

Landscape Equipment - Default values.

Energy Use - Default values.

Water And Wastewater - Default values.

Solid Waste - Default values.

Construction Off-road Equipment Mitigation - For HRA analysis Tier 4i equipment specified on equipment => 84hp.

Fleet Mix - Default values.

Stationary Sources - Emergency Generators and Fire Pumps - Actual source is a wastewater lift station pump, fire pump used as a surrogate for calclation of emissions.

Stationary Sources - Emergency Generators and Fire Pumps EF - Default values.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	8.00	64.00
tblConstructionPhase	NumDays	230.00	294.00
tblConstructionPhase	NumDays	18.00	7.00
tblConstructionPhase	NumDays	18.00	65.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	47.30	0.00
tblFireplaces	NumberNoFireplace	8.60	0.00
tblFireplaces	NumberWood	30.10	0.00
tblGrading	MaterialExported	0.00	50.00
tblLandUse	LandUseSquareFeet	86,000.00	145,700.00
tblLandUse	LotAcreage	5.38	3.28
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripNumber	427.00	428.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	19.00	12.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	87.00	40.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblTripsAndVMT	WorkerTripNumber	17.00	16.00
tblWoodstoves	NumberCatalytic	4.30	0.00
tblWoodstoves	NumberNoncatalytic	4.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1237	1.1852	1.1364	2.0800e-003	0.3194	0.0534	0.3728	0.1403	0.0497	0.1900	0.0000	181.0183	181.0183	0.0507	3.1000e-004	182.3772
2024	2.4583	1.2907	1.8119	2.7600e-003	9.0000e-005	0.0581	0.0582	4.0000e-005	0.0553	0.0553	0.0000	233.8922	233.8922	0.0470	6.1000e-004	235.2493
Maximum	**2.4583**	**1.2907**	**1.8119**	**2.7600e-003**	**0.3194**	**0.0581**	**0.3728**	**0.1403**	**0.0553**	**0.1900**	**0.0000**	**233.8922**	**233.8922**	**0.0507**	**6.1000e-004**	**235.2493**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0496	0.7803	1.3579	2.0800e-003	0.1437	6.6400e-003	0.1504	0.0631	6.6400e-003	0.0698	0.0000	181.0181	181.0181	0.0507	3.1000e-004	182.3770
2024	2.4008	1.1867	1.8979	2.7600e-003	9.0000e-005	0.0148	0.0149	4.0000e-005	0.0147	0.0148	0.0000	233.8920	233.8920	0.0470	6.1000e-004	235.2490
Maximum	**2.4008**	**1.1867**	**1.8979**	**2.7600e-003**	**0.1437**	**0.0148**	**0.1504**	**0.0631**	**0.0147**	**0.0698**	**0.0000**	**233.8920**	**233.8920**	**0.0507**	**6.1000e-004**	**235.2490**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.10**	**20.55**	**-10.43**	**0.00**	**54.98**	**80.76**	**61.65**	**54.98**	**79.66**	**65.55**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-1-2023**	**5-31-2023**	0.2679	0.1678
3	**9-1-2023**	**11-30-2023**	0.8418	0.5130
4	**12-1-2023**	**2-29-2024**	0.4496	0.3677
5	**3-1-2024**	**5-31-2024**	0.3756	0.3314
6	**6-1-2024**	**8-31-2024**	0.4166	0.3717
7	**9-1-2024**	**9-30-2024**	0.1225	0.1080
		Highest	0.8418	0.5130

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Energy	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	164.4936	164.4936	7.4700e-003	1.8900e-003	165.2440
Mobile	0.3033	0.3373	2.8520	6.0600e-003	0.6695	4.7200e-003	0.6742	0.1787	4.4000e-003	0.1831	0.0000	574.3244	574.3244	0.0400	0.0254	582.9023
Stationary	4.4900e-003	0.0234	0.0216	2.0000e-005		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	2.0849	2.0849	2.9000e-004	0.0000	2.0922
Waste						0.0000	0.0000		0.0000	0.0000	8.0303	0.0000	8.0303	0.4746	0.0000	19.8948
Water						0.0000	0.0000		0.0000	0.0000	1.7777	27.4826	29.2603	0.1843	4.5100e-003	35.2122
Total	**1.1361**	**0.4213**	**3.5348**	**6.4500e-003**	**0.6695**	**0.0139**	**0.6834**	**0.1787**	**0.0136**	**0.1922**	**9.8080**	**769.4299**	**779.2379**	**0.7076**	**0.0318**	**806.4150**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Energy	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	164.4936	164.4936	7.4700e-003	1.8900e-003	165.2440
Mobile	0.3033	0.3373	2.8520	6.0600e-003	0.6695	4.7200e-003	0.6742	0.1787	4.4000e-003	0.1831	0.0000	574.3244	574.3244	0.0400	0.0254	582.9023
Stationary	4.4900e-003	0.0234	0.0216	2.0000e-005		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	2.0849	2.0849	2.9000e-004	0.0000	2.0922
Waste						0.0000	0.0000		0.0000	0.0000	8.0303	0.0000	8.0303	0.4746	0.0000	19.8948
Water						0.0000	0.0000		0.0000	0.0000	1.7777	27.4826	29.2603	0.1843	4.5100e-003	35.2122
Total	**1.1361**	**0.4213**	**3.5348**	**6.4500e-003**	**0.6695**	**0.0139**	**0.6834**	**0.1787**	**0.0136**	**0.1922**	**9.8080**	**769.4299**	**779.2379**	**0.7076**	**0.0318**	**806.4150**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2023	3/31/2023	5	23	
2	Site Preparation	Site Preparation	9/1/2023	9/11/2023	5	7	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Grading/Trenching/Site Work	Grading	9/12/2023	12/10/2023	5	64	
4	Building Construction	Building Construction	10/15/2023	11/28/2024	5	294	
5	Paving	Paving	6/15/2024	6/25/2024	5	7	
6	Architectural Coating	Architectural Coating	10/2/2024	12/31/2024	5	65	

Acres of Grading (Site Preparation Phase): 7

Acres of Grading (Grading Phase): 64

Acres of Paving: 1.36

Residential Indoor: 295,043; Residential Outdoor: 98,348; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,590 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Trenching/Site Work	Excavators	1	8.00	158	0.38
Grading/Trenching/Site Work	Graders	1	8.00	187	0.41
Grading/Trenching/Site Work	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Trenching/Site Work	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Air Compressors	1	6.00	78	0.48

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	12.00	4.00	428.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	4.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading/Trenching/Site Work	6	16.00	4.00	6.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	40.00	12.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving	7	20.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0468	0.0000	0.0468	7.0900e-003	0.0000	7.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0261	0.2471	0.2259	4.5000e-004		0.0115	0.0115		0.0107	0.0107	0.0000	39.0909	39.0909	0.0110	0.0000	39.3646
Total	**0.0261**	**0.2471**	**0.2259**	**4.5000e-004**	**0.0468**	**0.0115**	**0.0583**	**7.0900e-003**	**0.0107**	**0.0178**	**0.0000**	**39.0909**	**39.0909**	**0.0110**	**0.0000**	**39.3646**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	3.9600e-003	3.1700e-003	1.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.5401	0.5401	2.0000e-005	9.0000e-005	0.5659
Vendor	3.0000e-005	5.4000e-004	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0674	0.0674	0.0000	1.0000e-005	0.0706
Worker	1.6000e-004	7.0000e-005	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0244	0.0244	2.0000e-005	1.0000e-005	0.0271
Total	**4.0000e-004**	**4.5700e-003**	**4.3200e-003**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.6318**	**0.6318**	**4.0000e-005**	**1.1000e-004**	**0.6636**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0211	0.0000	0.0211	3.1900e-003	0.0000	3.1900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2400e-003	0.1600	0.2814	4.5000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	39.0908	39.0908	0.0110	0.0000	39.3645
Total	**9.2400e-003**	**0.1600**	**0.2814**	**4.5000e-004**	**0.0211**	**2.0900e-003**	**0.0232**	**3.1900e-003**	**2.0900e-003**	**5.2800e-003**	**0.0000**	**39.0908**	**39.0908**	**0.0110**	**0.0000**	**39.3645**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	3.9600e-003	3.1700e-003	1.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.5401	0.5401	2.0000e-005	9.0000e-005	0.5659
Vendor	3.0000e-005	5.4000e-004	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0674	0.0674	0.0000	1.0000e-005	0.0706
Worker	1.6000e-004	7.0000e-005	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0244	0.0244	2.0000e-005	1.0000e-005	0.0271
Total	**4.0000e-004**	**4.5700e-003**	**4.3200e-003**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.6318**	**0.6318**	**4.0000e-005**	**1.1000e-004**	**0.6636**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0459	0.0000	0.0459	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8500e-003	0.0606	0.0374	8.0000e-005		2.7800e-003	2.7800e-003		2.5500e-003	2.5500e-003	0.0000	7.1668	7.1668	2.3200e-003	0.0000	7.2247
Total	**5.8500e-003**	**0.0606**	**0.0374**	**8.0000e-005**	**0.0459**	**2.7800e-003**	**0.0487**	**0.0236**	**2.5500e-003**	**0.0261**	**0.0000**	**7.1668**	**7.1668**	**2.3200e-003**	**0.0000**	**7.2247**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	1.6000e-004	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0205	0.0205	0.0000	0.0000	0.0215
Worker	4.0000e-005	2.0000e-005	1.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.1800e-003	6.1800e-003	0.0000	0.0000	6.8600e-003
Total	**5.0000e-005**	**1.8000e-004**	**3.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0267**	**0.0267**	**0.0000**	**0.0000**	**0.0284**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0206	0.0000	0.0206	0.0106	0.0000	0.0106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4600e-003	0.0252	0.0481	8.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	7.1668	7.1668	2.3200e-003	0.0000	7.2247
Total	**1.4600e-003**	**0.0252**	**0.0481**	**8.0000e-005**	**0.0206**	**1.3000e-004**	**0.0208**	**0.0106**	**1.3000e-004**	**0.0107**	**0.0000**	**7.1668**	**7.1668**	**2.3200e-003**	**0.0000**	**7.2247**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	1.6000e-004	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0205	0.0205	0.0000	0.0000	0.0215
Worker	4.0000e-005	2.0000e-005	1.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.1800e-003	6.1800e-003	0.0000	0.0000	6.8600e-003
Total	**5.0000e-005**	**1.8000e-004**	**3.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0267**	**0.0267**	**0.0000**	**0.0000**	**0.0284**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2267	0.0000	0.2267	0.1096	0.0000	0.1096	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0548	0.5740	0.4720	9.5000e-004		0.0248	0.0248		0.0228	0.0228	0.0000	83.3940	83.3940	0.0270	0.0000	84.0683
Total	**0.0548**	**0.5740**	**0.4720**	**9.5000e-004**	**0.2267**	**0.0248**	**0.2515**	**0.1096**	**0.0228**	**0.1324**	**0.0000**	**83.3940**	**83.3940**	**0.0270**	**0.0000**	**84.0683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	6.0000e-005	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.5700e-003	7.5700e-003	0.0000	0.0000	7.9300e-003
Vendor	8.0000e-005	1.5100e-003	1.1900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1874	0.1874	1.0000e-005	3.0000e-005	0.1965
Worker	6.0000e-004	2.5000e-004	2.6600e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0905	0.0905	6.0000e-005	3.0000e-005	0.1004
Total	**6.8000e-004**	**1.8200e-003**	**3.8900e-003**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2855**	**0.2855**	**7.0000e-005**	**6.0000e-005**	**0.3048**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading/Trenching/Site Work - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1020	0.0000	0.1020	0.0493	0.0000	0.0493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0166	0.3307	0.6077	9.5000e-004		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	83.3939	83.3939	0.0270	0.0000	84.0682
Total	**0.0166**	**0.3307**	**0.6077**	**9.5000e-004**	**0.1020**	**1.5500e-003**	**0.1035**	**0.0493**	**1.5500e-003**	**0.0509**	**0.0000**	**83.3939**	**83.3939**	**0.0270**	**0.0000**	**84.0682**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	6.0000e-005	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.5700e-003	7.5700e-003	0.0000	0.0000	7.9300e-003
Vendor	8.0000e-005	1.5100e-003	1.1900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1874	0.1874	1.0000e-005	3.0000e-005	0.1965
Worker	6.0000e-004	2.5000e-004	2.6600e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0905	0.0905	6.0000e-005	3.0000e-005	0.1004
Total	**6.8000e-004**	**1.8200e-003**	**3.8900e-003**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2855**	**0.2855**	**7.0000e-005**	**6.0000e-005**	**0.3048**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0344	0.2926	0.3838	5.9000e-004		0.0144	0.0144		0.0137	0.0137	0.0000	49.7451	49.7451	0.0102	0.0000	50.0007
Total	**0.0344**	**0.2926**	**0.3838**	**5.9000e-004**		**0.0144**	**0.0144**		**0.0137**	**0.0137**	**0.0000**	**49.7451**	**49.7451**	**0.0102**	**0.0000**	**50.0007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	3.8800e-003	3.0700e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.4832	0.4832	2.0000e-005	8.0000e-005	0.5066
Worker	1.3000e-003	5.4000e-004	5.7100e-003	0.0000	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.1944	0.1944	1.3000e-004	6.0000e-005	0.2157
Total	**1.5000e-003**	**4.4200e-003**	**8.7800e-003**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**0.6775**	**0.6775**	**1.5000e-004**	**1.4000e-004**	**0.7223**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.2535	0.4034	5.9000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	49.7451	49.7451	0.0102	0.0000	50.0006
Total	**0.0197**	**0.2535**	**0.4034**	**5.9000e-004**		**2.8500e-003**	**2.8500e-003**		**2.8500e-003**	**2.8500e-003**	**0.0000**	**49.7451**	**49.7451**	**0.0102**	**0.0000**	**50.0006**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	3.8800e-003	3.0700e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.4832	0.4832	2.0000e-005	8.0000e-005	0.5066
Worker	1.3000e-003	5.4000e-004	5.7100e-003	0.0000	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.1944	0.1944	1.3000e-004	6.0000e-005	0.2157
Total	**1.5000e-003**	**4.4200e-003**	**8.7800e-003**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**0.6775**	**0.6775**	**1.5000e-004**	**1.4000e-004**	**0.7223**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1404	1.2005	1.6655	2.5600e-003		0.0545	0.0545		0.0519	0.0519	0.0000	216.2194	216.2194	0.0440	0.0000	217.3203
Total	**0.1404**	**1.2005**	**1.6655**	**2.5600e-003**		**0.0545**	**0.0545**		**0.0519**	**0.0519**	**0.0000**	**216.2194**	**216.2194**	**0.0440**	**0.0000**	**217.3203**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7000e-004	0.0168	0.0132	2.0000e-005	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	2.0629	2.0629	7.0000e-005	3.3000e-004	2.1627
Worker	5.2400e-003	2.2000e-003	0.0240	1.0000e-005	5.0000e-005	2.0000e-005	7.0000e-005	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.8240	0.8240	5.1000e-004	2.5000e-004	0.9121
Total	**6.1100e-003**	**0.0190**	**0.0372**	**3.0000e-005**	**9.0000e-005**	**3.0000e-005**	**1.2000e-004**	**3.0000e-005**	**3.0000e-005**	**6.0000e-005**	**0.0000**	**2.8869**	**2.8869**	**5.8000e-004**	**5.8000e-004**	**3.0748**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0832	1.0968	1.7511	2.5600e-003		0.0115	0.0115		0.0115	0.0115	0.0000	216.2191	216.2191	0.0440	0.0000	217.3200
Total	**0.0832**	**1.0968**	**1.7511**	**2.5600e-003**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**216.2191**	**216.2191**	**0.0440**	**0.0000**	**217.3200**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7000e-004	0.0168	0.0132	2.0000e-005	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	2.0629	2.0629	7.0000e-005	3.3000e-004	2.1627
Worker	5.2400e-003	2.2000e-003	0.0240	1.0000e-005	5.0000e-005	2.0000e-005	7.0000e-005	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.8240	0.8240	5.1000e-004	2.5000e-004	0.9121
Total	**6.1100e-003**	**0.0190**	**0.0372**	**3.0000e-005**	**9.0000e-005**	**3.0000e-005**	**1.2000e-004**	**3.0000e-005**	**3.0000e-005**	**6.0000e-005**	**0.0000**	**2.8869**	**2.8869**	**5.8000e-004**	**5.8000e-004**	**3.0748**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4100e-003	0.0313	0.0475	7.0000e-005		1.5300e-003	1.5300e-003		1.4300e-003	1.4300e-003	0.0000	6.3862	6.3862	1.8300e-003	0.0000	6.4318
Paving	1.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.1900e-003**	**0.0313**	**0.0475**	**7.0000e-005**		**1.5300e-003**	**1.5300e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**6.3862**	**6.3862**	**1.8300e-003**	**0.0000**	**6.4318**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	3.0000e-005	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0134
Total	**8.0000e-005**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0134**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1500e-003	0.0310	0.0479	7.0000e-005		1.3200e-003	1.3200e-003		1.2300e-003	1.2300e-003	0.0000	6.3862	6.3862	1.8300e-003	0.0000	6.4318
Paving	1.7800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9300e-003**	**0.0310**	**0.0479**	**7.0000e-005**		**1.3200e-003**	**1.3200e-003**		**1.2300e-003**	**1.2300e-003**	**0.0000**	**6.3862**	**6.3862**	**1.8300e-003**	**0.0000**	**6.4318**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	3.0000e-005	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0121	0.0121	1.0000e-005	0.0000	0.0134
Total	**8.0000e-005**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0000**	**0.0134**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**2.3059**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	2.4000e-004	2.6100e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0896	0.0896	6.0000e-005	3.0000e-005	0.0992
Total	**5.7000e-004**	**2.4000e-004**	**2.6100e-003**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0896**	**0.0896**	**6.0000e-005**	**3.0000e-005**	**0.0992**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8700e-003	0.0396	0.0588	1.0000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	8.2981	8.2981	4.7000e-004	0.0000	8.3098
Total	**2.3059**	**0.0396**	**0.0588**	**1.0000e-004**		**1.9800e-003**	**1.9800e-003**		**1.9800e-003**	**1.9800e-003**	**0.0000**	**8.2981**	**8.2981**	**4.7000e-004**	**0.0000**	**8.3098**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	2.4000e-004	2.6100e-003	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0896	0.0896	6.0000e-005	3.0000e-005	0.0992
Total	**5.7000e-004**	**2.4000e-004**	**2.6100e-003**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0896**	**0.0896**	**6.0000e-005**	**3.0000e-005**	**0.0992**

Ponto Townhomes Project PDF Tier 4i Equipment =>84hp - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3033	0.3373	2.8520	6.0600e-003	0.6695	4.7200e-003	0.6742	0.1787	4.4000e-003	0.1831	0.0000	574.3244	574.3244	0.0400	0.0254	582.9023
Unmitigated	0.3033	0.3373	2.8520	6.0600e-003	0.6695	4.7200e-003	0.6742	0.1787	4.4000e-003	0.1831	0.0000	574.3244	574.3244	0.0400	0.0254	582.9023

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	629.52	700.04	540.08	1,789,753	1,789,753
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	629.52	700.04	540.08	1,789,753	1,789,753

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Other Asphalt Surfaces	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Parking Lot	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	102.8879	102.8879	6.2900e-003	7.6000e-004	103.2723
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	102.8879	102.8879	6.2900e-003	7.6000e-004	103.2723
NaturalGas Mitigated	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717
NaturalGas Unmitigated	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.15445e+006	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**6.2200e-003**	**0.0532**	**0.0226**	**3.4000e-004**		**4.3000e-003**	**4.3000e-003**		**4.3000e-003**	**4.3000e-003**	**0.0000**	**61.6056**	**61.6056**	**1.1800e-003**	**1.1300e-003**	**61.9717**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.15445e+006	6.2200e-003	0.0532	0.0226	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.6056	61.6056	1.1800e-003	1.1300e-003	61.9717
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**6.2200e-003**	**0.0532**	**0.0226**	**3.4000e-004**		**4.3000e-003**	**4.3000e-003**		**4.3000e-003**	**4.3000e-003**	**0.0000**	**61.6056**	**61.6056**	**1.1800e-003**	**1.1300e-003**	**61.9717**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	416569	102.0307	6.2400e-003	7.6000e-004	102.4118
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3500	0.8573	5.0000e-005	1.0000e-005	0.8605
Total		**102.8879**	**6.2900e-003**	**7.7000e-004**	**103.2723**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	416569	102.0307	6.2400e-003	7.6000e-004	102.4118
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3500	0.8573	5.0000e-005	1.0000e-005	0.8605
Total		**102.8879**	**6.2900e-003**	**7.7000e-004**	**103.2723**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Unmitigated	0.8221	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0192	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Total	**0.8221**	**7.3500e-003**	**0.6386**	**3.0000e-005**		**3.5400e-003**	**3.5400e-003**		**3.5400e-003**	**3.5400e-003**	**0.0000**	**1.0444**	**1.0444**	**1.0000e-003**	**0.0000**	**1.0695**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5729					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0192	7.3500e-003	0.6386	3.0000e-005		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	1.0444	1.0444	1.0000e-003	0.0000	1.0695
Total	**0.8221**	**7.3500e-003**	**0.6386**	**3.0000e-005**		**3.5400e-003**	**3.5400e-003**		**3.5400e-003**	**3.5400e-003**	**0.0000**	**1.0444**	**1.0444**	**1.0000e-003**	**0.0000**	**1.0695**

7.0 Water Detail

7.1 Mitigation Measures Water

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	29.2603	0.1843	4.5100e-003	35.2122
Unmitigated	29.2603	0.1843	4.5100e-003	35.2122

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.60325 / 3.53248	29.2603	0.1843	4.5100e-003	35.2122
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**29.2603**	**0.1843**	**4.5100e-003**	**35.2122**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.60325 / 3.53248	29.2603	0.1843	4.5100e-003	35.2122
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**29.2603**	**0.1843**	**4.5100e-003**	**35.2122**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.0303	0.4746	0.0000	19.8948
Unmitigated	8.0303	0.4746	0.0000	19.8948

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	39.56	8.0303	0.4746	0.0000	19.8948
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**8.0303**	**0.4746**	**0.0000**	**19.8948**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	39.56	8.0303	0.4746	0.0000	19.8948
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**8.0303**	**0.4746**	**0.0000**	**19.8948**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Fire Pump	1	1	365	15	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Fire Pump - Diesel (11 - 25 HP)	4.4900e-003	0.0234	0.0216	2.0000e-005		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	2.0849	2.0849	2.9000e-004	0.0000	2.0922
Total	**4.4900e-003**	**0.0234**	**0.0216**	**2.0000e-005**		**1.3200e-003**	**1.3200e-003**		**1.3200e-003**	**1.3200e-003**	**0.0000**	**2.0849**	**2.0849**	**2.9000e-004**	**0.0000**	**2.0922**

11.0 Vegetation

Appendix B

Health Risk Assessment Outputs

Health Risk Assessment Files

AERMOD ADO
HARP2 Unmitigated
HARP2 Mitigated

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.9.0
** Lakes Environmental Software Inc.
** Date: 3/2/2022
** File: C:\Users\dlarocca\Desktop\Air Quality Work\Lakes\Ponto2\Ponto2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\dlarocca\Desktop\Air Quality Work\Lakes\Ponto2\Ponto2.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL Ponto2.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Onsite Construction
** PREFIX
** Length of Side = 11.63
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 2.33
** SZINIT = 1.08
** Nodes = 33
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** 470624.593, 3661970.452, 12.73, 5.00, 5.41
** 470617.568, 3662071.810, 14.05, 5.00, 5.41
** 470629.611, 3662072.312, 13.48, 5.00, 5.41
** 470635.130, 3661971.958, 12.78, 5.00, 5.41
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** 470664.735, 3661909.236, 12.82, 5.00, 5.41
** 470646.671, 3661973.463, 12.82, 5.00, 5.41
** 470640.148, 3662072.814, 13.32, 5.00, 5.41
** 470653.696, 3662072.814, 13.21, 5.00, 5.41
** 470659.717, 3661971.456, 12.88, 5.00, 5.41
** 470674.770, 3661908.233, 12.85, 5.00, 5.41
** 470686.813, 3661908.735, 13.87, 5.00, 5.41
** 470670.756, 3661971.958, 12.82, 5.00, 5.41
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** 470699.357, 3661907.229, 14.16, 5.00, 5.41
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** 470706.883, 3661968.947, 14.42, 5.00, 5.41
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** 470724.445, 3661999.053, 14.73, 5.00, 5.41
** 470727.456, 3661970.954, 14.74, 5.00, 5.41
** 470742.007, 3661908.233, 14.71, 5.00, 5.41
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** 470737.993, 3661960.417, 14.91, 5.00, 5.41
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   LOCATION L0000002     VOLUME   470636.257 3661925.618 12.53
   LOCATION L0000003     VOLUME   470633.329 3661936.873 12.60
   LOCATION L0000004     VOLUME   470630.401 3661948.128 12.64
   LOCATION L0000005     VOLUME   470627.473 3661959.384 12.68
   LOCATION L0000006     VOLUME   470624.580 3661970.645 12.72
   LOCATION L0000007     VOLUME   470623.776 3661982.247 12.78
   LOCATION L0000008     VOLUME   470622.971 3661993.849 12.85
   LOCATION L0000009     VOLUME   470622.167 3662005.451 12.98
   LOCATION L0000010     VOLUME   470621.363 3662017.053 13.21
   LOCATION L0000011     VOLUME   470620.559 3662028.655 13.45
   LOCATION L0000012     VOLUME   470619.755 3662040.258 13.58
   LOCATION L0000013     VOLUME   470618.951 3662051.860 13.66
   LOCATION L0000014     VOLUME   470618.147 3662063.462 13.89
   LOCATION L0000015     VOLUME   470620.827 3662071.946 14.51
   LOCATION L0000016     VOLUME   470629.767 3662069.477 14.18
   LOCATION L0000017     VOLUME   470630.405 3662057.865 13.48
   LOCATION L0000018     VOLUME   470631.044 3662046.252 13.40
   LOCATION L0000019     VOLUME   470631.683 3662034.640 13.31
   LOCATION L0000020     VOLUME   470632.321 3662023.027 13.14
   LOCATION L0000021     VOLUME   470632.960 3662011.415 12.94
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LOCATION L0000022     VOLUME   470633.599 3661999.803 12.78
LOCATION L0000023     VOLUME   470634.237 3661988.190 12.77
LOCATION L0000024     VOLUME   470634.876 3661976.578 12.77
LOCATION L0000025     VOLUME   470637.054 3661965.224 12.76
LOCATION L0000026     VOLUME   470640.249 3661954.042 12.73
LOCATION L0000027     VOLUME   470643.444 3661942.859 12.69
LOCATION L0000028     VOLUME   470646.639 3661931.677 12.61
LOCATION L0000029     VOLUME   470649.834 3661920.494 12.53
LOCATION L0000030     VOLUME   470653.029 3661909.312 12.50
LOCATION L0000031     VOLUME   470664.214 3661909.214 12.69
LOCATION L0000032     VOLUME   470661.727 3661919.930 12.66
LOCATION L0000033     VOLUME   470658.578 3661931.125 12.66
LOCATION L0000034     VOLUME   470655.430 3661942.321 12.70
LOCATION L0000035     VOLUME   470652.281 3661953.517 12.75
LOCATION L0000036     VOLUME   470649.132 3661964.712 12.80
LOCATION L0000037     VOLUME   470646.505 3661975.997 12.79
LOCATION L0000038     VOLUME   470645.743 3661987.602 12.74
LOCATION L0000039     VOLUME   470644.981 3661999.207 12.68
LOCATION L0000040     VOLUME   470644.219 3662010.812 12.79
LOCATION L0000041     VOLUME   470643.457 3662022.417 12.94
LOCATION L0000042     VOLUME   470642.695 3662034.022 13.09
LOCATION L0000043     VOLUME   470641.933 3662045.627 13.20
LOCATION L0000044     VOLUME   470641.171 3662057.232 13.30
LOCATION L0000045     VOLUME   470640.409 3662068.838 13.99
LOCATION L0000046     VOLUME   470647.793 3662072.814 14.25
LOCATION L0000047     VOLUME   470654.035 3662067.096 13.53
LOCATION L0000048     VOLUME   470654.725 3662055.487 13.16
LOCATION L0000049     VOLUME   470655.415 3662043.877 13.07
LOCATION L0000050     VOLUME   470656.104 3662032.268 12.99
LOCATION L0000051     VOLUME   470656.794 3662020.658 12.88
LOCATION L0000052     VOLUME   470657.484 3662009.049 12.77
LOCATION L0000053     VOLUME   470658.173 3661997.439 12.71
LOCATION L0000054     VOLUME   470658.863 3661985.830 12.76
LOCATION L0000055     VOLUME   470659.553 3661974.220 12.80
LOCATION L0000056     VOLUME   470661.769 3661962.836 12.78
LOCATION L0000057     VOLUME   470664.463 3661951.522 12.74
LOCATION L0000058     VOLUME   470667.157 3661940.208 12.69
LOCATION L0000059     VOLUME   470669.851 3661928.895 12.72
LOCATION L0000060     VOLUME   470672.544 3661917.581 12.88
LOCATION L0000061     VOLUME   470676.789 3661908.317 13.14
LOCATION L0000062     VOLUME   470686.419 3661910.283 13.64
LOCATION L0000063     VOLUME   470683.557 3661921.555 13.46
LOCATION L0000064     VOLUME   470680.694 3661932.827 13.27
LOCATION L0000065     VOLUME   470677.831 3661944.100 13.11
LOCATION L0000066     VOLUME   470674.968 3661955.372 12.99
LOCATION L0000067     VOLUME   470672.105 3661966.644 12.88
LOCATION L0000068     VOLUME   470670.390 3661978.094 12.79
LOCATION L0000069     VOLUME   470669.696 3661989.704 12.76
LOCATION L0000070     VOLUME   470669.003 3662001.313 12.73
LOCATION L0000071     VOLUME   470668.310 3662012.922 12.81
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LOCATION L0000072 VOLUME 470667.617 3662024.532 12.90
LOCATION L0000073 VOLUME 470666.924 3662036.141 12.98
LOCATION L0000074 VOLUME 470666.231 3662047.750 13.04
LOCATION L0000075 VOLUME 470665.538 3662059.360 13.10
LOCATION L0000076 VOLUME 470664.845 3662070.969 13.38
LOCATION L0000077 VOLUME 470674.517 3662072.814 13.20
LOCATION L0000078 VOLUME 470677.880 3662063.966 13.16
LOCATION L0000079 VOLUME 470678.669 3662052.363 13.25
LOCATION L0000080 VOLUME 470679.457 3662040.760 13.39
LOCATION L0000081 VOLUME 470680.246 3662029.157 13.51
LOCATION L0000082 VOLUME 470681.034 3662017.554 13.48
LOCATION L0000083 VOLUME 470681.823 3662005.950 13.44
LOCATION L0000084 VOLUME 470682.612 3661994.347 13.47
LOCATION L0000085 VOLUME 470683.400 3661982.744 13.52
LOCATION L0000086 VOLUME 470684.189 3661971.141 13.57
LOCATION L0000087 VOLUME 470686.616 3661959.787 13.66
LOCATION L0000088 VOLUME 470689.323 3661948.477 13.77
LOCATION L0000089 VOLUME 470692.030 3661937.166 13.89
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** AERMOD Receptor Pathway
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**
RE STARTING
   INCLUDED Ponto2.rou
RE FINISHED
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** AERMOD Meteorology Pathway
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   PROFFILE "MET Data\722927.PFL"
   SURFDATA 3177 2009
   UAIRDATA 3190 2009
   PROFBASE 100.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
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   RECTABLE 1 1ST
** Auto-Generated Plotfiles
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   PLOTFILE PERIOD ALL Ponto2.AD\PE00GALL.PLT 32
   SUMMFILE Ponto2.sum
OU FINISHED

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

 *** AERMOD - VERSION  19191 ***   *** C:\Users\dlarocca\Desktop\Air Quality
Work\Lakes\Ponto2\Ponto2.isc   ***        03/02/22
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:02:29

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

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

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.
```

```
 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        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:  PM_10

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:    151 Source(s);       1 Source Group(s); and      63
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    151 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with      0 line(s)


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

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          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
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) BY	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE VARY
L0000001	0	0.66225E-02	470639.2	3661914.4	12.4	5.00	5.41	1.08	NO	
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L0000003	0	0.66225E-02	470633.3	3661936.9	12.6	5.00	5.41	1.08	NO	
L0000004	0	0.66225E-02	470630.4	3661948.1	12.6	5.00	5.41	1.08	NO	
L0000005	0	0.66225E-02	470627.5	3661959.4	12.7	5.00	5.41	1.08	NO	
L0000006	0	0.66225E-02	470624.6	3661970.6	12.7	5.00	5.41	1.08	NO	
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L0000025 0 0.66225E-02 470637.1 3661965.2 12.8 5.00 5.41
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L0000028 0 0.66225E-02 470646.6 3661931.7 12.6 5.00 5.41
1.08 NO
L0000029 0 0.66225E-02 470649.8 3661920.5 12.5 5.00 5.41
1.08 NO
L0000030 0 0.66225E-02 470653.0 3661909.3 12.5 5.00 5.41
1.08 NO
L0000031 0 0.66225E-02 470664.2 3661909.2 12.7 5.00 5.41
1.08 NO
L0000032 0 0.66225E-02 470661.7 3661919.9 12.7 5.00 5.41

1.08 NO
L0000033 0 0.66225E-02 470658.6 3661931.1 12.7 5.00 5.41
1.08 NO
L0000034 0 0.66225E-02 470655.4 3661942.3 12.7 5.00 5.41
1.08 NO
L0000035 0 0.66225E-02 470652.3 3661953.5 12.8 5.00 5.41
1.08 NO
L0000036 0 0.66225E-02 470649.1 3661964.7 12.8 5.00 5.41
1.08 NO
L0000037 0 0.66225E-02 470646.5 3661976.0 12.8 5.00 5.41
1.08 NO
L0000038 0 0.66225E-02 470645.7 3661987.6 12.7 5.00 5.41
1.08 NO
L0000039 0 0.66225E-02 470645.0 3661999.2 12.7 5.00 5.41
1.08 NO
L0000040 0 0.66225E-02 470644.2 3662010.8 12.8 5.00 5.41
1.08 NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** 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	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000041	0	0.66225E-02	470643.5	3662022.4	12.9	5.00	5.41	1.08	NO	
L0000042	0	0.66225E-02	470642.7	3662034.0	13.1	5.00	5.41	1.08	NO	
L0000043	0	0.66225E-02	470641.9	3662045.6	13.2	5.00	5.41	1.08	NO	
L0000044	0	0.66225E-02	470641.2	3662057.2	13.3	5.00	5.41	1.08	NO	
L0000045	0	0.66225E-02	470640.4	3662068.8	14.0	5.00	5.41	1.08	NO	
L0000046	0	0.66225E-02	470647.8	3662072.8	14.2	5.00	5.41	1.08	NO	
L0000047	0	0.66225E-02	470654.0	3662067.1	13.5	5.00	5.41			

1.08 NO
L0000048 0 0.66225E-02 470654.7 3662055.5 13.2 5.00 5.41
1.08 NO
L0000049 0 0.66225E-02 470655.4 3662043.9 13.1 5.00 5.41
1.08 NO
L0000050 0 0.66225E-02 470656.1 3662032.3 13.0 5.00 5.41
1.08 NO
L0000051 0 0.66225E-02 470656.8 3662020.7 12.9 5.00 5.41
1.08 NO
L0000052 0 0.66225E-02 470657.5 3662009.0 12.8 5.00 5.41
1.08 NO
L0000053 0 0.66225E-02 470658.2 3661997.4 12.7 5.00 5.41
1.08 NO
L0000054 0 0.66225E-02 470658.9 3661985.8 12.8 5.00 5.41
1.08 NO
L0000055 0 0.66225E-02 470659.6 3661974.2 12.8 5.00 5.41
1.08 NO
L0000056 0 0.66225E-02 470661.8 3661962.8 12.8 5.00 5.41
1.08 NO
L0000057 0 0.66225E-02 470664.5 3661951.5 12.7 5.00 5.41
1.08 NO
L0000058 0 0.66225E-02 470667.2 3661940.2 12.7 5.00 5.41
1.08 NO
L0000059 0 0.66225E-02 470669.9 3661928.9 12.7 5.00 5.41
1.08 NO
L0000060 0 0.66225E-02 470672.5 3661917.6 12.9 5.00 5.41
1.08 NO
L0000061 0 0.66225E-02 470676.8 3661908.3 13.1 5.00 5.41
1.08 NO
L0000062 0 0.66225E-02 470686.4 3661910.3 13.6 5.00 5.41
1.08 NO
L0000063 0 0.66225E-02 470683.6 3661921.6 13.5 5.00 5.41
1.08 NO
L0000064 0 0.66225E-02 470680.7 3661932.8 13.3 5.00 5.41
1.08 NO
L0000065 0 0.66225E-02 470677.8 3661944.1 13.1 5.00 5.41
1.08 NO
L0000066 0 0.66225E-02 470675.0 3661955.4 13.0 5.00 5.41
1.08 NO
L0000067 0 0.66225E-02 470672.1 3661966.6 12.9 5.00 5.41
1.08 NO
L0000068 0 0.66225E-02 470670.4 3661978.1 12.8 5.00 5.41
1.08 NO
L0000069 0 0.66225E-02 470669.7 3661989.7 12.8 5.00 5.41
1.08 NO
L0000070 0 0.66225E-02 470669.0 3662001.3 12.7 5.00 5.41
1.08 NO
L0000071 0 0.66225E-02 470668.3 3662012.9 12.8 5.00 5.41
1.08 NO
L0000072 0 0.66225E-02 470667.6 3662024.5 12.9 5.00 5.41

1.08 NO
L0000073 0 0.66225E-02 470666.9 3662036.1 13.0 5.00 5.41
1.08 NO
L0000074 0 0.66225E-02 470666.2 3662047.8 13.0 5.00 5.41
1.08 NO
L0000075 0 0.66225E-02 470665.5 3662059.4 13.1 5.00 5.41
1.08 NO
L0000076 0 0.66225E-02 470664.8 3662071.0 13.4 5.00 5.41
1.08 NO
L0000077 0 0.66225E-02 470674.5 3662072.8 13.2 5.00 5.41
1.08 NO
L0000078 0 0.66225E-02 470677.9 3662064.0 13.2 5.00 5.41
1.08 NO
L0000079 0 0.66225E-02 470678.7 3662052.4 13.2 5.00 5.41
1.08 NO
L0000080 0 0.66225E-02 470679.5 3662040.8 13.4 5.00 5.41
1.08 NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** 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	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000081	0	0.66225E-02	470680.2	3662029.2	13.5	5.00	5.41	1.08	NO	
L0000082	0	0.66225E-02	470681.0	3662017.6	13.5	5.00	5.41	1.08	NO	
L0000083	0	0.66225E-02	470681.8	3662005.9	13.4	5.00	5.41	1.08	NO	
L0000084	0	0.66225E-02	470682.6	3661994.3	13.5	5.00	5.41	1.08	NO	
L0000085	0	0.66225E-02	470683.4	3661982.7	13.5	5.00	5.41	1.08	NO	
L0000086	0	0.66225E-02	470684.2	3661971.1	13.6	5.00	5.41	1.08	NO	
L0000087	0	0.66225E-02	470686.6	3661959.8	13.7	5.00	5.41			

1.08 NO
L0000088 0 0.66225E-02 470689.3 3661948.5 13.8 5.00 5.41
1.08 NO
L0000089 0 0.66225E-02 470692.0 3661937.2 13.9 5.00 5.41
1.08 NO
L0000090 0 0.66225E-02 470694.7 3661925.9 14.1 5.00 5.41
1.08 NO
L0000091 0 0.66225E-02 470697.4 3661914.5 14.2 5.00 5.41
1.08 NO
L0000092 0 0.66225E-02 470703.4 3661907.6 14.2 5.00 5.41
1.08 NO
L0000093 0 0.66225E-02 470709.8 3661912.2 14.3 5.00 5.41
1.08 NO
L0000094 0 0.66225E-02 470706.8 3661923.4 14.2 5.00 5.41
1.08 NO
L0000095 0 0.66225E-02 470703.7 3661934.6 14.2 5.00 5.41
1.08 NO
L0000096 0 0.66225E-02 470700.6 3661945.9 14.2 5.00 5.41
1.08 NO
L0000097 0 0.66225E-02 470697.6 3661957.1 14.2 5.00 5.41
1.08 NO
L0000098 0 0.66225E-02 470694.5 3661968.3 14.1 5.00 5.41
1.08 NO
L0000099 0 0.66225E-02 470693.5 3661979.9 14.1 5.00 5.41
1.08 NO
L0000100 0 0.66225E-02 470692.7 3661991.5 14.1 5.00 5.41
1.08 NO
L0000101 0 0.66225E-02 470691.9 3662003.1 14.0 5.00 5.41
1.08 NO
L0000102 0 0.66225E-02 470691.0 3662014.7 14.1 5.00 5.41
1.08 NO
L0000103 0 0.66225E-02 470690.2 3662026.3 14.1 5.00 5.41
1.08 NO
L0000104 0 0.66225E-02 470689.3 3662037.9 13.9 5.00 5.41
1.08 NO
L0000105 0 0.66225E-02 470688.5 3662049.5 13.6 5.00 5.41
1.08 NO
L0000106 0 0.66225E-02 470687.6 3662061.1 13.3 5.00 5.41
1.08 NO
L0000107 0 0.66225E-02 470687.2 3662072.3 13.4 5.00 5.41
1.08 NO
L0000108 0 0.66225E-02 470698.8 3662072.3 13.7 5.00 5.41
1.08 NO
L0000109 0 0.66225E-02 470699.8 3662060.8 13.6 5.00 5.41
1.08 NO
L0000110 0 0.66225E-02 470700.7 3662049.2 14.1 5.00 5.41
1.08 NO
L0000111 0 0.66225E-02 470701.6 3662037.6 14.5 5.00 5.41
1.08 NO
L0000112 0 0.66225E-02 470702.5 3662026.0 14.6 5.00 5.41

1.08 NO
L0000113 0 0.66225E-02 470703.4 3662014.4 14.5 5.00 5.41
1.08 NO
L0000114 0 0.66225E-02 470704.3 3662002.8 14.5 5.00 5.41
1.08 NO
L0000115 0 0.66225E-02 470705.2 3661991.2 14.4 5.00 5.41
1.08 NO
L0000116 0 0.66225E-02 470706.1 3661979.6 14.4 5.00 5.41
1.08 NO
L0000117 0 0.66225E-02 470707.1 3661968.0 14.4 5.00 5.41
1.08 NO
L0000118 0 0.66225E-02 470709.4 3661956.6 14.4 5.00 5.41
1.08 NO
L0000119 0 0.66225E-02 470711.8 3661945.2 14.3 5.00 5.41
1.08 NO
L0000120 0 0.66225E-02 470714.1 3661933.9 14.3 5.00 5.41
1.08 NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** 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	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000121	0	0.66225E-02	470716.5	3661922.5	14.3	5.00	5.41	1.08	NO	
L0000122	0	0.66225E-02	470718.8	3661911.1	14.3	5.00	5.41	1.08	NO	
L0000123	0	0.66225E-02	470726.1	3661905.7	14.4	5.00	5.41	1.08	NO	
L0000124	0	0.66225E-02	470730.7	3661911.3	14.5	5.00	5.41	1.08	NO	
L0000125	0	0.66225E-02	470728.3	3661922.7	14.4	5.00	5.41	1.08	NO	
L0000126	0	0.66225E-02	470725.8	3661934.1	14.4	5.00	5.41	1.08	NO	
L0000127	0	0.66225E-02	470723.3	3661945.4	14.4	5.00	5.41			

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1.08     NO
 L0000128         0   0.66225E-02  470720.8 3661956.8    14.5     5.00     5.41
1.08     NO
 L0000129         0   0.66225E-02  470718.4 3661968.2    14.6     5.00     5.41
1.08     NO
 L0000130         0   0.66225E-02  470716.8 3661979.7    14.6     5.00     5.41
1.08     NO
 L0000131         0   0.66225E-02  470715.7 3661991.2    14.6     5.00     5.41
1.08     NO
 L0000132         0   0.66225E-02  470714.6 3662002.8    14.6     5.00     5.41
1.08     NO
 L0000133         0   0.66225E-02  470713.6 3662014.4    14.7     5.00     5.41
1.08     NO
 L0000134         0   0.66225E-02  470712.5 3662026.0    14.8     5.00     5.41
1.08     NO
 L0000135         0   0.66225E-02  470713.6 3662028.1    14.8     5.00     5.41
1.08     NO
 L0000136         0   0.66225E-02  470717.7 3662017.2    14.8     5.00     5.41
1.08     NO
 L0000137         0   0.66225E-02  470721.8 3662006.3    14.8     5.00     5.41
1.08     NO
 L0000138         0   0.66225E-02  470724.9 3661995.2    14.8     5.00     5.41
1.08     NO
 L0000139         0   0.66225E-02  470726.1 3661983.6    14.8     5.00     5.41
1.08     NO
 L0000140         0   0.66225E-02  470727.3 3661972.0    14.8     5.00     5.41
1.08     NO
 L0000141         0   0.66225E-02  470729.8 3661960.7    14.7     5.00     5.41
1.08     NO
 L0000142         0   0.66225E-02  470732.5 3661949.3    14.6     5.00     5.41
1.08     NO
 L0000143         0   0.66225E-02  470735.1 3661938.0    14.6     5.00     5.41
1.08     NO
 L0000144         0   0.66225E-02  470737.7 3661926.7    14.6     5.00     5.41
1.08     NO
 L0000145         0   0.66225E-02  470740.4 3661915.4    14.6     5.00     5.41
1.08     NO
 L0000146         0   0.66225E-02  470746.3 3661908.6    14.7     5.00     5.41
1.08     NO
 L0000147         0   0.66225E-02  470752.3 3661913.4    14.9     5.00     5.41
1.08     NO
 L0000148         0   0.66225E-02  470748.9 3661924.5    14.8     5.00     5.41
1.08     NO
 L0000149         0   0.66225E-02  470745.5 3661935.7    14.8     5.00     5.41
1.08     NO
 L0000150         0   0.66225E-02  470742.1 3661946.8    14.8     5.00     5.41
1.08     NO
 L0000151         0   0.66225E-02  470738.8 3661957.9    14.8     5.00     5.41
1.08     NO
↟ *** AERMOD - VERSION  19191 ***   *** C:\Users\dlarocca\Desktop\Air Quality
```

 *** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** 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 , 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 ,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

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

(470778.9, 3662072.1, 16.0, 16.0, 0.0); (470793.6, 3662072.9, 16.1, 16.1, 0.0);
(470787.1, 3662055.8, 16.3, 16.3, 0.0); (470801.0, 3662060.7, 16.4, 16.4, 0.0);
(470794.4, 3662033.7, 16.3, 16.3, 0.0); (470810.8, 3662039.4, 16.3, 16.3, 0.0);
(470800.1, 3662021.4, 16.7, 16.7, 0.0); (470814.8, 3662027.2, 16.4, 16.4, 0.0);
(470806.7, 3662001.0, 16.9, 16.9, 0.0); (470822.2, 3662002.7, 16.8, 16.8, 0.0);
(470608.1, 3661909.5, 12.9, 12.9, 0.0); (470603.2, 3661923.4, 12.9, 17.0, 0.0);
(470597.5, 3661943.8, 12.8, 12.8, 0.0); (470591.0, 3661966.7, 13.8, 13.8, 0.0);
(470581.2, 3661993.7, 15.4, 15.4, 0.0); (470815.7, 3661984.7, 16.8, 16.8, 0.0);
(470829.5, 3661992.0, 16.9, 16.9, 0.0); (470820.6, 3661963.4, 17.1, 17.1, 0.0);

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     ( 470837.7, 3661969.2,      17.1,      17.1,       0.0);         ( 470828.7,
3661951.2,      17.4,      17.4,       0.0);
     ( 470832.8, 3661928.3,      17.4,      17.4,       0.0);         ( 470841.0,
3661911.1,      17.4,      17.4,       0.0);
     ( 470848.3, 3661945.5,      17.5,      17.5,       0.0);         ( 470859.0,
3661958.5,      17.2,      17.2,       0.0);
     ( 470861.4, 3661935.7,      17.6,      17.6,       0.0);         ( 470871.2,
3661951.2,      17.3,      17.3,       0.0);
     ( 470867.1, 3661911.1,      17.7,      17.7,       0.0);         ( 470881.0,
3661893.2,      18.0,      18.0,       0.0);
     ( 470890.8, 3661935.7,      17.5,      17.5,       0.0);         ( 470880.2,
3661925.0,      17.6,      17.6,       0.0);
     ( 470904.7, 3661921.8,      17.9,      17.9,       0.0);         ( 470899.0,
3661903.8,      18.2,      18.2,       0.0);
     ( 470912.1, 3661908.7,      18.1,      18.1,       0.0);         ( 470838.5,
3662070.5,      16.2,      16.2,       0.0);
     ( 470840.2, 3662056.6,      16.3,      16.3,       0.0);         ( 470847.5,
3662037.0,      16.8,      16.8,       0.0);
     ( 470760.9, 3662115.4,      15.4,      15.4,       0.0);         ( 470751.9,
3662126.8,      15.7,      15.7,       0.0);
     ( 470749.5, 3662139.9,      15.6,      15.6,       0.0);         ( 470744.6,
3662155.4,      15.6,      15.6,       0.0);
     ( 470739.7, 3662170.2,      15.6,      15.6,       0.0);         ( 470732.3,
3662182.4,      15.7,      15.7,       0.0);
     ( 470725.8, 3662200.4,      15.9,      15.9,       0.0);         ( 470776.4,
3662151.4,      15.5,      15.5,       0.0);
     ( 470784.6, 3662117.0,      15.4,      15.4,       0.0);         ( 470798.5,
3662113.0,      15.5,      15.5,       0.0);
     ( 470809.9, 3662147.3,      15.6,      15.6,       0.0);         ( 470783.0,
3662168.5,      15.7,      15.7,       0.0);
     ( 470813.2, 3662114.6,      15.6,      15.6,       0.0);         ( 470869.6,
3661867.8,      17.8,      17.8,       0.0);
     ( 470875.3, 3661853.1,      18.0,      18.0,       0.0);         ( 470890.0,
3661875.2,      18.2,      18.2,       0.0);
     ( 470894.1, 3661859.7,      18.2,      18.2,       0.0);         ( 470905.5,
3661881.7,      18.5,      18.5,       0.0);
     ( 470922.7, 3661888.3,      18.3,      18.3,       0.0);         ( 470911.3,
3661864.6,      18.4,      18.4,       0.0);
     ( 470929.2, 3661867.8,      18.5,      18.5,       0.0);         ( 470876.1,
3661985.5,      16.8,      16.8,       0.0);
     ( 470869.6, 3662020.6,      17.1,      17.1,       0.0);         ( 470883.5,
3661828.6,      17.8,      17.8,       0.0);
     ( 470903.9, 3661836.8,      18.1,      18.1,       0.0);         ( 470889.2,
3661808.2,      17.8,      17.8,       0.0);
     ( 470909.6, 3661818.0,      18.4,      18.4,       0.0);

 *** AERMOD - VERSION  19191 ***   *** C:\Users\dlarocca\Desktop\Air Quality
Work\Lakes\Ponto2\Ponto2.isc   ***        03/02/22
 *** AERMET - VERSION  14134 ***   ***
                       ***       14:02:29
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 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 RURAL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: MET Data\722927.SFC
Met Version: 14134
Profile file: MET Data\722927.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 3177 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN

Year: 2009 Year: 2009

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
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	282.0	2.0
09	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	280.9	2.0
09	01	01	1	03	-6.5	0.115	-9.000	-9.000	-999.	94.	21.0	0.24	1.10	1.00	1.76	134.	10.0	279.9	2.0
09	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	278.8	2.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	278.8	2.0
09	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	279.2	2.0
09	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	1.00	0.00	0.	10.0	279.9	2.0
09	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	0.51	0.00	0.	10.0	280.4	2.0
09	01	01	1	09	31.7	-9.000	-9.000	-9.000	64.	-999.	-99999.0	0.25	1.10	0.30	0.00	0.	10.0	282.0	2.0
09	01	01	1	10	82.9	-9.000	-9.000	-9.000	137.	-999.	-99999.0	0.25	1.10	0.23	0.00	0.	10.0	284.9	2.0
09	01	01	1	11	118.4	-9.000	-9.000	-9.000	220.	-999.	-99999.0	0.25	1.10	0.21	0.00	0.	10.0	287.5	2.0
09	01	01	1	12	134.6	0.401	1.053	0.007	311.	608.	-42.8	0.36	1.10	0.20	2.86	256.	10.0	287.0	2.0
09	01	01	1	13	132.0	0.346	1.151	0.007	414.	490.	-28.1	0.36	1.10	0.20	2.36	273.	10.0	286.4	2.0
09	01	01	1	14	111.2	0.341	1.148	0.007	487.	478.	-31.9	0.36	1.10	0.21	2.36	249.	10.0	287.0	2.0
09	01	01	1	15	71.9	0.383	1.046	0.007	570.	568.	-69.8	0.36	1.10	0.24	2.86	282.	10.0	285.9	2.0
09	01	01	1	16	1.2	0.344	0.264	0.007	566.	486.	-3141.2	0.36	1.10	0.33	2.86	264.	10.0	283.8	2.0
09	01	01	1	17	-5.9	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.25	1.10	0.61	0.00	0.	10.0	283.1	2.0
09	01	01	1	18	-13.0	0.233	-9.000	-9.000	-999.	270.	87.2	0.31	1.10	1.00	2.36	237.	10.0	283.1	2.0

```
 09 01 01   1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.25   1.10
1.00    0.00    0.   10.0  283.1    2.0
 09 01 01   1 20   -3.9  0.075 -9.000 -9.000 -999.   50.      9.9  0.10   1.10
1.00    1.76   87.   10.0  283.1    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.25   1.10
1.00    0.00    0.   10.0  283.1    2.0
 09 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.25   1.10
1.00    0.00    0.   10.0  282.5    2.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.25   1.10
1.00    0.00    0.   10.0  282.5    2.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.25   1.10
1.00    0.00    0.   10.0  282.0    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1 -999.  -99.00   282.1   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  19191 ***   *** C:\Users\dlarocca\Desktop\Air Quality
Work\Lakes\Ponto2\Ponto2.isc   ***        03/02/22
 *** AERMET - VERSION  14134 ***   ***
                      ***        14:02:29

                                 PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                              *** THE PERIOD ( 43872 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 PM_10    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         470778.89    3662072.11       49.85038                     470793.60
3662072.93       43.19611
```

```
         470787.06    3662055.77       51.58847                    470800.95
3662060.67       43.73029
         470794.42    3662033.71       53.47396                    470810.76
3662039.43       44.16920
         470800.14    3662021.45       52.43818                    470814.84
3662027.17       44.22091
         470806.67    3662001.02       50.75811                    470822.20
3662002.66       42.89685
         470608.13    3661909.51       65.81893                    470603.23
3661923.40       72.44547
         470597.51    3661943.83       79.32859                    470590.97
3661966.71       86.69543
         470581.17    3661993.67       89.11592                    470815.66
3661984.68       46.16294
         470829.55    3661992.04       39.90262                    470820.56
3661963.44       42.28977
         470837.72    3661969.16       35.61756                    470828.73
3661951.18       36.80998
         470832.82    3661928.31       30.27249                    470840.99
3661911.15       23.51393
         470848.34    3661945.47       29.11941                    470858.96
3661958.54       28.03665
         470861.42    3661935.66       24.29000                    470871.22
3661951.18       24.38803
         470867.14    3661911.15       18.84819                    470881.03
3661893.17       13.90183
         470890.83    3661935.66       19.18079                    470880.21
3661925.04       19.32041
         470904.72    3661921.77       15.72836                    470899.00
3661903.80       13.80480
         470912.07    3661908.70       13.45077                    470838.54
3662070.47       30.14701
         470840.17    3662056.58       31.69672                    470847.53
3662036.98       31.87644
         470760.92    3662115.41       37.75569                    470751.93
3662126.85       34.95886
         470749.48    3662139.92       30.53032                    470744.58
3662155.45       26.33808
         470739.67    3662170.16       23.01646                    470732.32
3662182.41       20.80361
         470725.78    3662200.39       17.88802                    470776.44
3662151.36       24.27339
         470784.61    3662117.05       31.94696                    470798.50
3662112.96       30.30749
         470809.94    3662147.28       21.60432                    470782.98
3662168.52       20.37698
         470813.21    3662114.60       27.25234                    470869.59
3661867.84       10.95651
         470875.31    3661853.14        8.81529                    470890.01
3661875.20       10.64601
```

```
         470894.10    3661859.67        8.74911                        470905.54
3661881.73       10.52150
         470922.70    3661888.27       10.49054                        470911.26
3661864.58        8.57805
         470929.23    3661867.84        8.23371                        470876.12
3661985.50       25.92956
         470869.59    3662020.63       27.42054                        470883.48
3661828.63        6.64315
         470903.90    3661836.80        6.58631                        470889.20
3661808.20        5.45144
         470909.62    3661818.00        5.23028

 *** AERMOD - VERSION  19191 ***   *** C:\Users\dlarocca\Desktop\Air Quality
Work\Lakes\Ponto2\Ponto2.isc   ***        03/02/22
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:02:29

                                   PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                               *** THE   1ST HIGHEST  1-HR 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 PM_10    IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        470778.89   3662072.11      655.98574  (10120402)               470793.60
3662072.93      623.96998  (10120402)
        470787.06   3662055.77      634.64552  (13021706)               470800.95
3662060.67      605.45549  (13021706)
        470794.42   3662033.71      610.90951  (13021706)               470810.76
3662039.43      575.16465  (11022821)
        470800.14   3662021.45      597.79329  (11022821)               470814.84
3662027.17      572.35994  (11022821)
        470806.67   3662001.02      588.59244  (09022018)               470822.20
```

3662002.66 564.95100 (09022018)
470608.13 3661909.51 703.42174 (10112503) 470603.23
3661923.40 663.78937 (12111203)
470597.51 3661943.83 608.73128 (13112707) 470590.97
3661966.71 657.83326 (12111405)
470581.17 3661993.67 752.29165 (11112706) 470815.66
3661984.68 586.85347 (09022018)
470829.55 3661992.04 558.39924 (09022018) 470820.56
3661963.44 603.29945 (12020819)
470837.72 3661969.16 565.82600 (12020819) 470828.73
3661951.18 605.46528 (10011605)
470832.82 3661928.31 628.60423 (10020118) 470840.99
3661911.15 617.74155 (11123017)
470848.34 3661945.47 570.20223 (10010118) 470858.96
3661958.54 541.92429 (10011605)
470861.42 3661935.66 553.26204 (11120106) 470871.22
3661951.18 527.81992 (10011605)
470867.14 3661911.15 548.60260 (10020118) 470881.03
3661893.17 533.01479 (11123017)
470890.83 3661935.66 504.34388 (11120106) 470880.21
3661925.04 523.01103 (10020118)
470904.72 3661921.77 496.76306 (10020118) 470899.00
3661903.80 483.47152 (10020118)
470912.07 3661908.70 478.66131 (10020118) 470838.54
3662070.47 529.56920 (13021706)
470840.17 3662056.58 516.28492 (13021706) 470847.53
3662036.98 511.52354 (11022821)
470760.92 3662115.41 675.46879 (13012805) 470751.93
3662126.85 689.11851 (11020704)
470749.48 3662139.92 684.69249 (09022021) 470744.58
3662155.45 674.73543 (09022021)
470739.67 3662170.16 638.80021 (09022021) 470732.32
3662182.41 641.39193 (11022319)
470725.78 3662200.39 618.39642 (10012223) 470776.44
3662151.36 609.13087 (13012805)
470784.61 3662117.05 618.66885 (10121618) 470798.50
3662112.96 585.03876 (10121618)
470809.94 3662147.28 546.57101 (10121618) 470782.98
3662168.52 577.71359 (13012805)
470813.21 3662114.60 558.29247 (10120402) 470869.59
3661867.84 603.90544 (10020622)
470875.31 3661853.14 604.35553 (10020622) 470890.01
3661875.20 519.05789 (10022219)
470894.10 3661859.67 537.35681 (10020622) 470905.54
3661881.73 474.36132 (11123017)
470922.70 3661888.27 451.22078 (09050420) 470911.26
3661864.58 479.67651 (10022219)
470929.23 3661867.84 436.44034 (11123017) 470876.12
3661985.50 496.83967 (12020819)
470869.59 3662020.63 484.36674 (09022018) 470883.48

```
3661828.63      555.23917  (10020622)
        470903.90   3661836.80      541.99632  (10020622)                470889.20
3661808.20      521.41604  (10120717)
        470909.62   3661818.00      510.54693  (10020622)
```

```
↑ *** AERMOD - VERSION  19191 ***   *** C:\Users\dlarocca\Desktop\Air Quality
Work\Lakes\Ponto2\Ponto2.isc   ***        03/02/22
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:02:29

                                  PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                        *** THE SUMMARY OF MAXIMUM PERIOD ( 43872
HRS) RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
               **



                        NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS      89.11592 AT (  470581.17,  3661993.67,    15.35,
   15.35,    0.00)  DC
          2ND HIGHEST VALUE IS      86.69543 AT (  470590.97,  3661966.71,    13.76,
   13.76,    0.00)  DC
          3RD HIGHEST VALUE IS      79.32859 AT (  470597.51,  3661943.83,    12.81,
   12.81,    0.00)  DC
          4TH HIGHEST VALUE IS      72.44547 AT (  470603.23,  3661923.40,    12.91,
   16.96,    0.00)  DC
          5TH HIGHEST VALUE IS      65.81893 AT (  470608.13,  3661909.51,    12.93,
   12.93,    0.00)  DC
          6TH HIGHEST VALUE IS      53.47396 AT (  470794.42,  3662033.71,    16.32,
   16.32,    0.00)  DC
          7TH HIGHEST VALUE IS      52.43818 AT (  470800.14,  3662021.45,    16.69,
   16.69,    0.00)  DC
          8TH HIGHEST VALUE IS      51.58847 AT (  470787.06,  3662055.77,    16.26,
   16.26,    0.00)  DC
          9TH HIGHEST VALUE IS      50.75811 AT (  470806.67,  3662001.02,    16.92,
   16.92,    0.00)  DC
         10TH HIGHEST VALUE IS      49.85038 AT (  470778.89,  3662072.11,    16.00,
   16.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
```

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	NETWORK TYPE	GRID-ID	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF
ALL	HIGH	1ST HIGH VALUE IS	752.29165	ON 11112706:		AT (470581.17, 3661993.67, 15.35, 15.35, 0.00)	DC

 *** Message Summary : AERMOD Model Execution ***

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

 A Total of   0 Fatal Error Message(s)
 A Total of   0 Warning Message(s)
 A Total of   19613 Informational Message(s)

 A Total of   43872 Hours Were Processed

A Total of   16729 Calm Hours Identified

A Total of   2884 Missing Hours Identified (6.57 Percent)

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

********   WARNING MESSAGES   ********
*** NONE ***

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

HARP2

HARP2 - HRACalc (dated 21081) 4/1/2022 11:16:01 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.83

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.83
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\Users\dlarocca\Desktop\Air Quality Work\HARP2\PontoCarlsbad\hra\Const22MonthCancerT4i84hpCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\dlarocca\Desktop\Air Quality Work\HARP2\PontoCarlsbad\hra\Const22MonthCancerT4i84hpCancerRiskSumByRec.csv
HRA ran successfully

*HARP - HRACalc v21081 4/1/2022 11:16:01 AM - Cancer Risk - Input File: C:\Users\dlarocca\Desktop\Air Quality Work\HARP2\PontoCarlsbad\hra\Const22MonthCancerT4i84hpHRAInput.hra

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISI	PIG_RISK	CHICKEN_F	EGG_RISK
1	ALL		470778.9	3662072	5.00E-06	1.83YrCanc	5.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	ALL		470793.6	3662073	4.33E-06	1.83YrCanc	4.33E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	ALL		470787.1	3662056	5.17E-06	1.83YrCanc	5.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	ALL		470801	3662061	4.38E-06	1.83YrCanc	4.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	ALL		470794.4	3662034	5.36E-06	1.83YrCanc	5.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	ALL		470810.8	3662039	4.43E-06	1.83YrCanc	4.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7	ALL		470800.1	3662021	5.26E-06	1.83YrCanc	5.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8	ALL		470814.8	3662027	4.43E-06	1.83YrCanc	4.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9	ALL		470806.7	3662001	5.09E-06	1.83YrCanc	5.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10	ALL		470822.2	3662003	4.30E-06	1.83YrCanc	4.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11	ALL		470608.1	3661910	6.60E-06	1.83YrCanc	6.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12	ALL		470603.2	3661923	7.26E-06	1.83YrCanc	7.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
13	ALL		470597.5	3661944	7.95E-06	1.83YrCanc	7.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
14	ALL		470591	3661967	8.69E-06	1.83YrCanc	8.69E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
15	ALL		470581.2	3661994	8.93E-06	1.83YrCanc	8.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
16	ALL		470815.7	3661985	4.63E-06	1.83YrCanc	4.63E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
17	ALL		470829.6	3661992	4.00E-06	1.83YrCanc	4.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18	ALL		470820.6	3661963	4.24E-06	1.83YrCanc	4.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
19	ALL		470837.7	3661969	3.57E-06	1.83YrCanc	3.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
20	ALL		470828.7	3661951	3.69E-06	1.83YrCanc	3.69E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
21	ALL		470832.8	3661928	3.03E-06	1.83YrCanc	3.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
22	ALL		470841	3661911	2.36E-06	1.83YrCanc	2.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
23	ALL		470848.3	3661945	2.92E-06	1.83YrCanc	2.92E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
24	ALL		470859	3661959	2.81E-06	1.83YrCanc	2.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
25	ALL		470861.4	3661936	2.43E-06	1.83YrCanc	2.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
26	ALL		470871.2	3661951	2.44E-06	1.83YrCanc	2.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
27	ALL		470867.1	3661911	1.89E-06	1.83YrCanc	1.89E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
28	ALL		470881	3661893	1.39E-06	1.83YrCanc	1.39E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
29	ALL		470890.8	3661936	1.92E-06	1.83YrCanc	1.92E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
30	ALL		470880.2	3661925	1.94E-06	1.83YrCanc	1.94E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
31	ALL		470904.7	3661922	1.58E-06	1.83YrCanc	1.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
32	ALL		470899	3661904	1.38E-06	1.83YrCanc	1.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
33	ALL		470912.1	3661909	1.35E-06	1.83YrCanc	1.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
34	ALL		470838.5	3662070	3.02E-06	1.83YrCanc	3.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
35	ALL		470840.2	3662057	3.18E-06	1.83YrCanc	3.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
36	ALL		470847.5	3662037	3.20E-06	1.83YrCanc	3.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
37	ALL		470760.9	3662115	3.78E-06	1.83YrCanc	3.78E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
38	ALL		470751.9	3662127	3.50E-06	1.83YrCanc	3.50E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
39	ALL		470749.5	3662140	3.06E-06	1.83YrCanc	3.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
40	ALL		470744.6	3662155	2.64E-06	1.83YrCanc	2.64E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
41	ALL		470739.7	3662170	2.31E-06	1.83YrCanc	2.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
42	ALL		470732.3	3662182	2.09E-06	1.83YrCanc	2.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

43	ALL	470725.8	3662200	1.79E-06	1.83YrCanc	1.79E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
44	ALL	470776.4	3662151	2.43E-06	1.83YrCanc	2.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
45	ALL	470784.6	3662117	3.20E-06	1.83YrCanc	3.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
46	ALL	470798.5	3662113	3.04E-06	1.83YrCanc	3.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
47	ALL	470809.9	3662147	2.17E-06	1.83YrCanc	2.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
48	ALL	470783	3662169	2.04E-06	1.83YrCanc	2.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
49	ALL	470813.2	3662115	2.73E-06	1.83YrCanc	2.73E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50	ALL	470869.6	3661868	1.10E-06	1.83YrCanc	1.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
51	ALL	470875.3	3661853	8.84E-07	1.83YrCanc	8.84E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
52	ALL	470890	3661875	1.07E-06	1.83YrCanc	1.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
53	ALL	470894.1	3661860	8.77E-07	1.83YrCanc	8.77E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
54	ALL	470905.5	3661882	1.05E-06	1.83YrCanc	1.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
55	ALL	470922.7	3661888	1.05E-06	1.83YrCanc	1.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
56	ALL	470911.3	3661865	8.60E-07	1.83YrCanc	8.60E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
57	ALL	470929.2	3661868	8.25E-07	1.83YrCanc	8.25E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
58	ALL	470876.1	3661986	2.60E-06	1.83YrCanc	2.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
59	ALL	470869.6	3662021	2.75E-06	1.83YrCanc	2.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
60	ALL	470883.5	3661829	6.66E-07	1.83YrCanc	6.66E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
61	ALL	470903.9	3661837	6.60E-07	1.83YrCanc	6.60E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
62	ALL	470889.2	3661808	5.46E-07	1.83YrCanc	5.46E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
63	ALL	470909.6	3661818	5.24E-07	1.83YrCanc	5.24E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

8.93E-06

8.93E+00

HARP2 - HRACalc (dated 21081) 4/1/2022 11:23:38 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\Users\dlarocca\Desktop\Air Quality Work\HARP2\PontoCarlsbad\hra\Const22MonthChronicT4i84hpNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\dlarocca\Desktop\Air Quality Work\HARP2\PontoCarlsbad\hra\Const22MonthChronicT4i84hpNCChronicRiskSumByRec.csv
HRA ran successfully

*HARP - HRACalc v21081 4/1/2022 11:23:38 AM - Chronic Risk - Input File: C:\Users\dlarocca\Desktop\Air Quality Work\HARP2\PontoCarlsbad\hra\Const22MonthChronicT4i84hpHRAInput.hra

REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL	MAXHI
1	ALL		470778.9	3662072	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-03
2	ALL		470793.6	3662073	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03
3	ALL		470787.1	3662056	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.29E-03
4	ALL		470801	3662061	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.79E-03
5	ALL		470794.4	3662034	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E-03
6	ALL		470810.8	3662039	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-03
7	ALL		470800.1	3662021	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03
8	ALL		470814.8	3662027	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-03
9	ALL		470806.7	3662001	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-03
10	ALL		470822.2	3662003	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03
11	ALL		470608.1	3661910	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-03
12	ALL		470603.2	3661923	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.62E-03
13	ALL		470597.5	3661944	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E-03
14	ALL		470591	3661967	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.53E-03
15	ALL		470581.2	3661994	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.69E-03
16	ALL		470815.7	3661985	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.95E-03
17	ALL		470829.6	3661992	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03
18	ALL		470820.6	3661963	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.70E-03
19	ALL		470837.7	3661969	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03
20	ALL		470828.7	3661951	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03
21	ALL		470832.8	3661928	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03
22	ALL		470841	3661911	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-03
23	ALL		470848.3	3661945	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03
24	ALL		470859	3661959	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03
25	ALL		470861.4	3661936	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-03
26	ALL		470871.2	3661951	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-03
27	ALL		470867.1	3661911	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-03
28	ALL		470881	3661893	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-04
29	ALL		470890.8	3661936	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-03
30	ALL		470880.2	3661925	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-03
31	ALL		470904.7	3661922	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-03
32	ALL		470899	3661904	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.81E-04
33	ALL		470912.1	3661909	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.58E-04
34	ALL		470838.5	3662070	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03
35	ALL		470840.2	3662057	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03
36	ALL		470847.5	3662037	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03
37	ALL		470760.9	3662115	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.41E-03
38	ALL		470751.9	3662127	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-03
39	ALL		470749.5	3662140	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03
40	ALL		470744.6	3662155	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03
41	ALL		470739.7	3662170	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-03
42	ALL		470732.3	3662182	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-03
43	ALL		470725.8	3662200	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-03
44	ALL		470776.4	3662151	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-03
45	ALL		470784.6	3662117	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
46	ALL		470798.5	3662113	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03
47	ALL		470809.9	3662147	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03
48	ALL		470783	3662169	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-03

49	ALL	470813.2	3662115	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03
50	ALL	470869.6	3661868	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.99E-04
51	ALL	470875.3	3661853	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.63E-04
52	ALL	470890	3661875	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.79E-04
53	ALL	470894.1	3661860	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.58E-04
54	ALL	470905.5	3661882	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.71E-04
55	ALL	470922.7	3661888	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.69E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.69E-04
56	ALL	470911.3	3661865	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.47E-04
57	ALL	470929.2	3661868	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.25E-04
58	ALL	470876.1	3661986	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03
59	ALL	470869.6	3662021	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03
60	ALL	470883.5	3661829	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-04
61	ALL	470903.9	3661837	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-04
62	ALL	470889.2	3661808	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.48E-04
63	ALL	470909.6	3661818	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-04

5.69E-03