# Appendix C

Air Quality Technical Report

# Air Quality Technical Report

# Renzulli Estates Project San Diego, California

**MAY 2025**

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# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| | |
| AERMOD | American Meteorological Society/EPA Regulatory Model |
| ATCM | Airborne Toxic Control Measure |
| CAA | federal Clean Air Act |
| CAAQS | California Ambient Air Quality Standards |
| CalEEMod | California Emissions Estimator Model |
| CALINE4 | California LINE Source Dispersion Model |
| CARB | California Air Resources Board |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CFC | chlorofluorocarbon |
| $CH_4$ | methane |
| City | City of San Diego |
| CNRA | California Natural Resources Agency |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| County | County of San Diego |
| DPM | diesel particulate matter |
| EO | Executive Order |
| EPA | U.S. Environmental Protection Agency |
| EV | electric vehicle |
| GWP | global warming potential |
| HCFC | hydrochlorofluorocarbon |
| HFC | hydrofluorocarbon |
| HRA | health risk assessment |
| IPCC | Intergovernmental Panel on Climate Change |
| LOS | level of service |
| MMT $CO_2e$ | million metric tons of $CO_2$ equivalent |
| MT | metric tons |
| MT $CO_2e$ | metric tons of $CO_2$ equivalent |
| $N_2O$ | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NHTSA | National Highway Traffic Safety Administration |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | oxides of nitrogen |
| $O_3$ | ozone |
| OEHHA | Office of Environmental Health Hazard Assessment |
| PFC | perfluorocarbon |
| $PM_{10}$ | 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 |

| Acronym/Abbreviation | Definition |
|---|---|
| ppm | parts per million |
| RAQS | Regional Air Quality Strategy |
| Regional Plan | San Diego Forward: The Regional Plan |
| RPS | Renewables Portfolio Standard |
| RTP | Regional Transportation Plan |
| SANDAG | San Diego Association of Governments |
| SB | Senate Bill |
| SCS | Sustainable Communities Strategy |
| SDAB | San Diego Air Basin |
| SDAPCD | San Diego Air Pollution Control District |
| SDG&E | San Diego Gas and Electric |
| $SF_6$ | sulfur hexafluoride |
| SIP | State Implementation Plan |
| SLCP | short-lived climate pollutant |
| $SO_2$ | Sulfur dioxide |
| $SO_x$ | sulfur oxides |
| TAC | toxic air contaminant |
| VMT | vehicle miles traveled |
| VOC | volatile organic compound |
| ZEV | zero emissions vehicle |

# Executive Summary

The purpose of this technical report is to assess the potential air quality impacts associated with implementation of the proposed Renzulli Estates Project (project). This assessment utilizes the City of San Diego CEQA Significance Determination Thresholds (City of San Diego 2022).

## Project Overview

The proposed 40.56-acre development site is located at 11495 Cypress Canyon Road in the Scripps Miramar Ranch Community Planning Area, in the City of San Diego, California (Figure 1, Project Location). The site Assessor's Parcel Number is 319-020-0400. The site is currently vacant but occupied by an existing single-family residence and several outbuildings. The site is adjacent to residential and open space uses, as well as Cypress Canyon Park to the east.

The project consists of the demolition of the existing residence (and all associated structures) onsite and the construction of 100 single-family homes and 12 multi-family affordable rental units (Figure 2, Site Plan). Primary access to the project site would be from Cypress Canyon Road from the southeast and northwest of the project site. The project would also include open space, brush management zones, landscaping, circulation, water, wastewater, stormwater, and dry utilities improvements. The project would require a Vesting Tentative Map, a Site Development Permit, a Neighborhood Development Permit, and a Multi-Habitat Planning Area (MHPA) Boundary Line Adjustment. In addition, the project would require a Community Plan Amendment to change the existing residential designation of 1.1 to 2.8 dwelling units per acre. A Rezone is also proposed to change the existing Agricultural-Residential (AR)-1-1 zone to Residential-Small Lot (RX)-1-2, Residential – Multiple Unit (RM-2-4), and Open Space - Residential (OR-1-2). Per the City's Municipal Code, the AR zone accommodates a wide range of agricultural uses while also permitting the development of single dwelling unit homes at a very low density; specifically, AR-1-1 requires a minimum of 10-acre lots. The RX zone provides both attached and detached single dwelling units on smaller lots than required in the Residential Single Unit (RS) zones. RX-1-2 would require a minimum of 3,000-square-foot lots. The Residential – Multiple Unit (RM) zone provides for multiple dwelling unit development at varying densities. RM-2-4 permits a maximum density of 1 dwelling unit for each 1,750 square feet of lot area.

The project would be required to comply with the updated 2022 California Green Building standards (CALGreen), which would substantially improve energy and water conservation, as well as operational efficiency, over the existing older development currently in operation at the project site. Specifically, examples of air quality benefits achieved with compliance with CALGreen standards include volatile organic compound (VOC) content limits for adhesives, sealants, and architectural coatings, and reduction of building heating requirements resulting from increased energy efficient building design specifications.

In addition, the project will include the following additional sustainability elements:

- Rooftop photovoltaic solar panels consistent with Title 24 requirements
- Integrated storm water management throughout landscape design to enable groundwater recharge
- Potable/recycled water supply system for outdoor water use
- Construction waste reduction program that requires100% recycling of demolition waste and 75% diversion of construction waste Residential recycling program, including recyclable material storage areas, provision

of recycling materials receptacles, provision of organic waste recycling receptacles, collection of recyclables twice a month, and education to residents about recycling services available

- Wood-burning fireplaces shall be prohibited.

## 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 proposed project. Impacts were evaluated for their significance based on the San Diego Air Pollution Control District's (SDAPCD) mass daily criteria air pollutant thresholds of significance (SDAPCD 2016a). 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, nitrogen dioxide, carbon monoxide (CO), sulfur dioxide, 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 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 ozone.

### 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. Every four years SANDAG works with local jurisdictions, the California State Department of Finance, demographic and economic experts, and stakeholders to create a long-term forecast that predicts what the region will look like in terms of population, housing units, and number of jobs. SANDAG's Series 15 Forecast had a launch year of 2022 and look to year 2050 was recently completed and is being used in the modeling and planning for the 2025 Regional Plan. The Series 15 Forecast estimates that the City would have 553,921 units in 2022 and 645,899 units in 2040 (SANDAG 2024). This would equate to an additional 5,110 units per year from 2022 to 2040.

Implementation of the proposed project would result in an increase in 112 residential units. The Project site is currently zoned as Agricultural-Residential and is designated as Park, open Space, Recreation, and Residential per the City's General Plan. Under the permitted uses within the Agricultural-Residential zone, the site is assumed to have been developed for agricultural uses or low-density single dwelling unit homes with a minimum of 10 acre lots. Considering the site is 40.56 acres, the zoning would allow up to four single-family units. The Scripps Miramar Ranch Community Plan's land use designation for the project site is Very Low Residential and Open Space. The project proposes to increase the residential land use designation to Low Residential land use. The plan currently designates a maximum unit count of 45 for the project site. Overall, considering both land use and zoning, the maximum allowed buildout would be four single-family units under the existing conditions. The rezone would change potential buildout through zoning by 108 units, increasing the maximum from 4 units to 112 units. The community plan amendment would change the maximum unit allocation in Figure 7b from 45 units to 112 units, increasing the identified community plan allowance by 67 units.

The City is currently in urgent need for housing and is experiencing a housing shortage, as discussed in the City of San Diego General Plan Housing Element 2021-2029. The City's portion of the County's RHNA target for the 2021-2029 Housing Element period is 108,036 homes (City of San Diego 2020). While the City is planning for additional housing to meet the need and targeted to permit more than 88,000 new housing units between 2010 – 2020, less than half of those units were constructed (42,275) as of December 2019 (City of San Diego 2020). The land use designation and zoning would allow for a maximum of four units at the project site. Considering this, the proposed addition of 110 units would be 106 units beyond that planned for the site. Regardless, the SANDAG growth forecast is not anticipated to result in a population increase considering there is a shortage of housing to accommodate the existing and planned population.. Although the project proposes a Community Plan Amendment that would increase the residential density of the site, the proposed housing would be growth accommodating. Thus, the project would not directly induce substantial unplanned population growth to the area. In addition, the proposed 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 proposed 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 proposed 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 VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$ during construction. Therefore, impacts would be **less than significant.**

## Operational Criteria Air Pollutant Emissions

Consistent with the Local Mobility Analysis for the project (Linscott, Law & Greenspan, Engineers (LLG) 2022), the analysis herein assumed an operational year of 2028. Operation of the proposed 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 VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$. Therefore, impacts would be **less than significant.**

## Cumulative Impacts

The potential for the proposed 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 VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$, the proposed 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 proposed project would be less than significant. In addition, diesel equipment would also be subject to the California Air Resources Board Airborne Toxic Control Measures for in-use off-road diesel fleets, which would minimize diesel particulate matter emissions. The health risk assessment prepared for the proposed project (Appendix B) for construction showed cancer and non-cancer risks below levels of significance after mitigation. Mitigation requires that prior to the start of construction activities and issuance of grading permits, the project applicant, or its designee, shall ensure that all 75 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. [No residual toxic air contaminant emissions and corresponding cancer risk are anticipated after construction, since no long-term sources of toxic air contaminant emissions are anticipated during operation of the proposed project. Therefore, impacts to sensitive receptors during construction would be **less than significant with mitigation.**

The proposed project would not exceed the City's CO hotspots screening levels during operation. 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 proposed 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 impacts associated with implementation of the proposed Renzulli Estates Project (project). This assessment uses the City's CEQA Significance Determination Thresholds (City of San Diego 2022) and is based on the emissions-based significance thresholds recommended by the San Diego Air Pollution Control District (SDAPCD) and other applicable thresholds of significance.

This introductory section provides a description of the proposed project and the project location (see Figure 1, Project Location). Section 2, Air Quality, describes the air quality-related environmental setting, regulatory setting, existing air quality conditions, thresholds of significance and analysis methodology, and also presents an air quality impact analysis. Section 3, References Cited, includes a list of the references cited. Section 4, List of Preparers, includes a list of those who prepared this technical report.

## 1.2 Project Description

The project would be located on an approximately 40.56-acre parcel at 11495 Cypress Canyon Road (APN 319-020-0400) (project site) in the northeast section of the City of San Diego (City) within the Scripps Miramar Ranch Community Planning Area (Figure 1, Project Location).

The site Assessor's Parcel Number is 319-020-0400. The site is currently vacant but developed with a single-family home with supporting garages and sheds. The site is adjacent to residential and open space uses, as well as Cypress Canyon Park to the east.

The project consists of the demolition of the existing residence (and all associated structures) onsite and the construction of 100 single-family homes and 12 multi-family affordable income rental units (Figure 2, Site Plan). Primary access to the project site will be from Cypress Canyon Road, which would allow for access from the southeast and northwest of the project site. The project would also include open space, brush management zones, landscaping, circulation, water, wastewater, stormwater, and dry utilities improvements. The project would require a Vesting Tentative Map, a Site Development Permit, and an MHPA Boundary Line Adjustment. In addition, the project would also require a Community Plan Amendment to change the existing residential designation of 1.1 dwelling units per acre to 2.8 dwelling units per acre. A Rezone is also proposed to change the existing Agricultural-Residential (AR)-1-1 zone to Residential-Small Lot (RX)-1-2, Residential--Multiple Unit (RM-2-4), and Open Space - Residential (OR-1-2). Per the City's Municipal Code, the AR zone accommodates a wide range of agricultural uses while also permitting the development of single dwelling unit homes at a very low density; specifically, AR-1-1 requires a minimum of 10-acre lots. The RX zone provides both attached and detached single dwelling units on smaller lots than required in the Residential Single Unit (RS) zones. RX-1-2 would require a minimum of 3,000-square-foot lots. The Residential – Multiple Unit (RM) zone provides for multiple dwelling unit development at varying densities. RM-2-4 permits a maximum density of 1 dwelling unit for each 1,750 square feet of lot area. OR-1-2 allows open space with limited private residential development.

The project would be required to comply with the updated 2020 California Green Building standards (CALGreen), which would substantially improve energy and water conservation, as well as operational efficiency, over the existing older development currently in operation at the project site. Specifically, examples of air quality benefits achieved with compliance with CALGreen standards include VOC content limits for adhesives, sealants, and architectural coatings and reduction of building heating requirements resulting from increased energy efficient building design specifications.

In addition to the mitigation measures the project will include the following additional sustainability elements:

- Rooftop photovoltaic solar panels consistent with Title 24 requirements
- Integrated storm water management throughout landscape design to enable groundwater recharge
- Potable/recycled water supply system for outdoor water use
- Construction waste reduction program that requires100% recycling of demolition waste and 75% diversion of construction waste Residential recycling program, including recyclable material storage areas, provision of recycling materials receptacles, provision of organic waste recycling receptacles, collection of recyclables twice a month, and education to residents about recycling services available

Wood-burning fireplaces shall be prohibited.

# 2 Air Quality

## 2.1 Environmental Setting

The project site 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 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 Fahrenheit [°F]) 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 to the east.

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, the topography influences the dispersal and movement of pollutants in the SDAB. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers as described in the next section.

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.

### 2.1.1 Meteorological and Topographical Conditions

The SDAB lies in the southwest corner of California, comprises the entire San Diego region (covering approximately 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 climate also drives the pollutant levels. The climate of San Diego is classified as Mediterranean, but it is incredibly diverse due to the topography. The climate is dominated by the Pacific High-pressure system that results in mild, dry summers and mild, wet winters. The Pacific High drives the prevailing winds in the SDAB. The winds tend to blow onshore during the daytime and offshore at night. In the fall months, the SDAB is often impacted by Santa Ana winds. These winds are the result of a high-pressure system over the Nevada–Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean (SDAPCD 2015a). The winds blow the air basin's pollutants out to sea. However, a weak Santa Ana can transport air pollution from the South Coast Air Basin and greatly increase the San Diego ozone ($O_3$) concentrations. A strong Santa Ana also primes the vegetation for firestorm conditions.

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. Another 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 can also trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce $O_3$, commonly known as smog.

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 emissions of carbon monoxide (CO) and oxides of nitrogen ($NO_x$). 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 basin are associated with heavy traffic. Nitrogen dioxide ($NO_2$) levels are also generally higher during fall and winter days when $O_3$ concentrations are lower.

The local climate in the central part of the County of San Diego (County) is characterized as semi-arid with consistently mild, warmer temperatures throughout the year. The average summertime high temperature in the region is approximately 86°F. The average wintertime low temperature is approximately 39°F. Average precipitation in the local area is approximately 13.2 inches per year, with the bulk of precipitation falling between November and March (WRCC 2017).

## 2.1.2 Pollutants and Effects

### 2.1.2.1 Criteria Air Pollutants

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. 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 ($SO_2$), 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. These pollutants, as well as toxic air contaminants (TACs), 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.** $O_3$ 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 volatile organic compounds (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 ozone) and at the Earth's surface in the troposphere (ozone).[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,"

1 The descriptions of each of the criteria air pollutants and associated health effects are based on the EPA's (2016a) Criteria Air Pollutants and the CARB (2016a) Glossary of Air Pollutant Terms.

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

$O_3$ 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 and Oxides of Nitrogen.** $NO_2$ 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, which is a colorless, odorless gas. $NO_2$ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016b).

$NO_x$ 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 of $NO_x$ are transportation and stationary fuel combustion sources, such as electric utility and industrial boilers.

**Carbon Monoxide.** 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, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive 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.** $SO_2$ 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.** 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 (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 (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 intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

**Volatile Organic Compounds.** 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 primary 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 TACs. There are no separate health standards for VOCs as a group.

**Sulfates.** Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of $SO_2$ in the atmosphere. Sulfates can result in respiratory impairment and reduced visibility.

**Vinyl Chloride.** Vinyl chloride is a colorless gas with a mild, sweet odor that has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in the air can cause nervous system effects such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

**Hydrogen Sulfide.** Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

**Visibility-Reducing Particles.** Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$, described above.

### 2.1.2.2 Non-Criteria Air Pollutants

**Toxic Air Contaminants.** 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 non-cancer 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, Assembly Bill (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 five 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.** Diesel particulate matter (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 one 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) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines, including on-road diesel engines from trucks, buses, and cars; and off-road diesel engines from 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 2016c). 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.

The County is not considered a highly endemic region for Valley Fever, as the latest report from the California Department of Public Health indicated the County has 4.4 cases per 100,000 people (California Department of Public Health 2017). Among the total reported incidents of Valley Fever from 2016 through 2018, less than 6.0 cases per 100,000 were in in the City's zip code (92131) (County of San Diego 2018).

### 2.1.3 Sensitive Receptors

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 include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing and retirement homes, hospitals, residential homes where medical patients reside, and residential communities (sensitive sites or sensitive land uses) (CARB 2005; City of San Diego 2022). The SDAPCD identifies sensitive receptors as those who are especially susceptible to adverse health effects from exposure to TACs, such as children, the elderly, and the ill. Sensitive receptors include schools (grades Kindergarten through 12), day care centers, nursing homes, retirement homes, health clinics, and hospitals within two kilometers of the facility (SDAPCD 2019). The closest sensitive receptors to the project are surrounding residences and Cypress Canyon Park to the east of the project site.

# 2.2 Regulatory Setting

## 2.2.1 Federal Regulations

### 2.2.1.1 Criteria Air 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 the National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant 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.

Under the CAA, NAAQS are established for the following criteria pollutants: $O_3$, 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 five 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.

### 2.2.1.2 Hazardous Air Pollutants

The 1977 federal CAA amendments required the EPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain VOCs, 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 hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

## 2.2.2 State Regulations

### 2.2.2.1 Criteria Air Pollutants

The federal CAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, 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, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the CAA and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for $O_3$, CO, $SO_2$ (1-hour and 24-hour), $NO_2$, $PM_{10}$, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. 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 | 9.0 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 | — | — |

## Table 1. Ambient Air Quality Standards

| Pollutant | Averaging Time | California Standards[a] | National Standards[b] | |
|---|---|---|---|---|
| | | Concentration[c] | Primary[c,d] | Secondary[c,e] |
| 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; EPA 2024.

**Notes:** $O_3$ = ozone; ppm = parts per million by volume; μg/m$^3$ = micrograms per cubic meter; $NO_2$ = nitrogen dioxide; CO = carbon monoxide; mg/m$^3$= 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. California Ambient Air Quality Standards 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 three 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/m$^3$ is equal to or less than one. 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°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 $O_3$ primary and secondary standards were lowered from 0.075 to 0.070 ppm.

g To attain the national 1-hour standard, the three-year average of the annual 98th percentile of the one-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 three-year average of the annual 99th percentile of the one-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 one 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 February 7, 2024, the national annual $PM_{2.5}$ primary standard was lowered from 12 μg/m$^3$ to 9 μg/m$^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m$^3$, as was the annual secondary standard of 15 μg/m$^3$. The existing 24-hour $PM_{10}$ standards (primary and secondary) of 150 μg/m$^3$ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over three years..

j California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants 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 three-month average. The 1978 lead standard (1.5 μg/m$^3$ as a quarterly average) remains in effect until one 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.

### 2.2.2.2 Toxic Air Contaminants

A TAC is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Federal laws use the hazardous air pollutants to refer to the same types of compounds that are referred to as TACs under state law. California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588).

AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. Pursuant to AB 2588, existing facilities that emit air pollutants above specified levels were required to (1) prepare a TAC emission inventory plan and report; (2) prepare a risk assessment if TAC emissions were significant; (3) notify the public of significant risk levels; and (4) if health impacts were above specified levels, prepare and implement risk reduction measures.

The following regulatory measures pertain to the reduction of DPM and criteria pollutant emissions from off-road equipment and diesel-fueled vehicles.

### Idling of Commercial Heavy Duty Trucks (13 CCR 2485)

In July 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to control emissions from idling trucks. The ATCM prohibits idling for more than five minutes for all commercial trucks with a gross vehicle weight rating over 10,000 pounds. The ATCM contains an exception that allows trucks to idle while queuing or involved in operational activities.

### In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.)

In July 2007, CARB adopted an ATCM for in-use off-road diesel vehicles. This regulation requires that specific fleet average requirements are met for $NO_x$ emissions and for particulate matter emissions. Where average requirements cannot be met, best available control technology requirements apply. The regulation also includes several recordkeeping and reporting requirements.

In response to AB 8 2X, the regulations were revised in July 2009 (effective December 3, 2009) to allow a partial postponement of the compliance schedule in 2011 and 2012 for existing fleets. On December 17, 2010, CARB adopted additional revisions to further delay the deadlines reflecting reductions in diesel emissions due to the poor economy and overestimates of diesel emissions in California. The revisions delayed the first compliance date until no earlier than January 1, 2014, for large fleets, with final compliance by January 1, 2023. The compliance dates for medium fleets were delayed until an initial date of January 1, 2017, and final compliance date of January 1, 2023. The compliance dates for small fleets were delayed until an initial date of January 1, 2019, and final compliance date of January 1, 2028. Correspondingly, the fleet average targets were made more stringent in future compliance years. The revisions also accelerated the phaseout of older equipment with newer equipment added to existing large and medium fleets over time, requiring the addition of Tier 2 or higher engines starting on March 1, 2011, with some exceptions: Tier 2 or higher engines on January 1, 2013, without exception; and Tier 3 or higher engines on January 1, 2018 (January 1, 2023, for small fleets).

On October 28, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulation. The amendments included revisions to the applicability section and additions and revisions to the definition. The initial date for requiring the addition of Tier 2 or higher engines for large and medium fleets, with some exceptions, was revised to January 1, 2012. New provisions also allow for the removal of emission control devices for safety or visibility purposes. The regulation also was amended to combine the particulate matter and $NO_x$ fleet average targets under one, instead of two, sections. The amended fleet average targets are based on the fleet's $NO_x$ fleet average, and the previous section regarding particulate matter performance requirements was deleted completely. The best available control technology requirements, if a fleet cannot comply with the fleet average requirements, were restructured and clarified. Other amendments to the regulations included minor administrative changes to the regulatory text.

On November 17, 2022, CARB approved amendments to the regulation aimed at further reducing emissions from the off-road sector. Other amendments to the regulations included minor administrative changes to the regulatory text.

### In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025)

On December 12, 2008, CARB adopted an ATCM to reduce $NO_x$ and particulate matter emissions from most in-use on-road diesel trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. The original ATCM regulation required fleets of on-road trucks to limit their $NO_x$ and particulate matter emissions through a combination of exhaust retrofit equipment and new vehicles. The regulation limited particulate matter emissions for most fleets by 2011, and limited $NO_x$ emissions for most fleets by 2013. The regulation did not require any vehicle to be replaced before 2012 and never required all vehicles in a fleet be replaced.

In December 2009, the CARB Governing Board directed staff to evaluate amendments that would provide additional flexibility for fleets adversely affected by the struggling California economy. On December 17, 2010, CARB revised this ATCM to delay its implementation along with limited relaxation of its requirements. Starting on January 1, 2015, lighter trucks with a gross vehicle weight rating of 14,001 to 26,000 pounds with 20-year-old or older engines need to be replaced with newer trucks (2010 model year emissions equivalent as defined in the regulation). Trucks with a gross vehicle weight rating greater than 26,000 pounds with 1995 model year or older engines needed to be replaced as of January 1, 2015. Trucks with 1996 to 2006 model year engines must install a Level 3 (85% control) diesel particulate filter starting on January 1, 2012, to January 1, 2014, depending on the model year, and then must be replaced after eight years. Trucks with 2007 to 2009 model year engines have no requirements until 2023, at which time they must be replaced with 2010 model year emissions-equivalent engines, as defined in the regulation. Trucks with 2010 model year engines would meet the final compliance requirements. The ATCM provides a phase-in option under which a fleet operator would equip a percentage of trucks in the fleet with diesel particulate filters, starting at 30% as of January 1, 2012, with 100% by January 1, 2016. Under each option, delayed compliance is granted to fleet operators who have or will comply with requirements before the required deadlines.

On September 19, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulations, including revisions to the compliance schedule for vehicles with a gross vehicle weight rating of 26,000 pounds or less to clarify that *all* vehicles must be equipped with 2010 model year emissions equivalent engines by 2023. The amendments included revised and additional credits for fleets that have downsized; implement early particulate matter retrofits; incorporate hybrid vehicles, alternative-fueled vehicles, and vehicles with heavy-duty pilot ignition engines; and implement early addition of newer vehicles. The amendments included provisions for additional flexibility, such as for low-usage construction trucks, and revisions to previous exemptions, delays, and extensions. Other amendments to the regulations included minor administrative changes to the regulatory text, such as recordkeeping and reporting requirements related to other revisions.

### California Health and Safety Code Section 41700

Section 41700 of the California 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.

## 2.2.3 Local Regulations

### 2.2.3.1 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 proposed project area is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD.

In the County, $O_3$ and particulate matter are the pollutants of main concern, since exceedances of state ambient air quality standards for those pollutants have been observed 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, an $O_3$ nonattainment area for the 2008 8-hour $O_3$ standard, and a CO maintenance area (western and central part of the SDAB only, including the proposed project area).

#### Federal Attainment Plans

SDAPCD has prepared the 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County (2020 Attainment Plan) that demonstrates how the region will further reduce air pollutant emissions to attain the current NAAQS for ozone. The 2020 Attainment Plan was approved by the SDAPCD on October 14, 2020. On November 19, 2020, CARB adopted the 2020 Attainment Plan for attaining the Federal 8 hour 75 ppb and 70 ppb Ozone standards and projects attainment for the standards by 2026 and 2032, respectively (SDAPCD 2020a). The 2020 Attainment Plan will be submitted to the EPA as a revision to the California State Implementation Plan (SIP) for attaining the ozone NAAQS.

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 $O_3$ NAAQS), which indicated 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 2016a). In this plan, SDAPCD relies on the 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 the 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 NAAQS and maintenance for the 1997 NAAQS. As documented in the 2016 8-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. The County will also continue emission control measures, including ongoing implementation of existing regulations in $O_3$ 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 2016a).

### State Attainment Plans

The SDAPCD and the San Diego Association of Governments (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 on a triennial basis, most recently in 2020 (SDAPCD 2020). Approved by the District Board on October 14, 2020, and the California Air Resources Board on November 19, 2020, the plan was submitted by CARB on January 8, 2021 for EPA's consideration as a revision to the California State Implementation Plan (SIP) for attaining the ozone standards. The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards 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. 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 January 2021, CARB submitted for EPA's consideration the revised California SIP. On July 12, 2021, the San Diego 2020 SIP was found complete by EPA. Under the Clean Air Act, the EPA has twelve months from the completeness date to take a final action on the 2020 SIP. As discussed in the 2020 RAQS, the results of modeling and Weight of Evidence analyses provide persuasive support to a conclusion that the emission control measures defined in the plan are sufficient to continue reducing ozone concentrations throughout San Diego County to the level of the 2008 ozone NAAQS by the conclusion of the 2026 ozone season, and to the level of the 2015 ozone NAAQS by the conclusion of the 2032 ozone season.

In regards to particulate matter emissions-reduction efforts, in December 2005, the SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill (SB) 656 in the County (SB 656 required additional controls to reduce ambient concentrations of $PM_{10}$ and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluated 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; carry-out and track-out 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 above, the 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 and would apply to the proposed project.

#### SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources

This rule requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds per day or more of VOC, $NO_x$, $SO_x$, or $PM_{10}$ to be equipped with best available control technology. For those units with a potential to emit above Air Quality Impact Assessments Trigger Levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 2016b).

The proposed project does not propose specific stationary sources. If stationary sources were to be included as part of the proposed project, or at a later date, those sources would be subject to Rule 20.2 and would require appropriate operating permits from the SDAPCD. Because the SDAPCD has not adopted specific criteria air pollutant thresholds for CEQA analyses, the thresholds identified in Rule 20.2 are utilized in this analysis as screening-level thresholds to evaluate project-level impacts, as discussed in Section 2.4.1, Thresholds of Significance.

#### SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions

This rule prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any period of 60 consecutive minutes, which is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

Construction of the proposed project may result in visible emissions, primarily during earth-disturbing activities, which would be subject to SDAPCD Rule 50. Although visible emissions are less likely to occur during operation of the proposed project, compliance with SDAPCD Rule 50 would be required during both construction and operational phases.

#### SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance

This rule 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 1969).

Any criteria air pollutant emissions, TAC emissions, or odors that would be generated during construction or operation of the proposed project would be subject to SDAPCD Rule 51. Violations can be reported to the SDAPCD in the form of an air quality complaint by telephone, email, and online form. Complaints are investigated by the SDAPCD as soon as possible.

#### SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust

This rule 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 area (SDAPCD 2009b).

Construction of the proposed project, primarily during earth-disturbing activities, may result in fugitive dust emissions that would be subject to SDAPCD Rule 55. Fugitive dust emissions are not anticipated during operation of the proposed project.

#### 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 2021).

#### SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1200: Toxic Air Contaminants - New Source Review

This rule requires new or modified stationary source units with the potential to emit TACs above rule threshold levels to either demonstrate that they will not increase the maximum incremental cancer risk above one in 1 million at every receptor location; demonstrate that toxics best available control technology will be employed if maximum incremental cancer risk is equal to or less than 10 in 1 million; or demonstrate compliance with the SDAPCD's protocol for those sources with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in 1 million but less than 100 in 1 million (SDAPCD 2017a).

The proposed project does not currently include specific stationary sources that would generate TACs that are not commonly associated with residential development projects. If stationary sources with the potential to emit TACs were to be included as part of the proposed project—or if they were added at a later date—those sources would be subject to SDAPCD Rule 1200, and would be subject to new source review requirements.

#### SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1210: Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction

This rule requires each stationary source required to prepare a public risk assessment to provide written public notice of risks at or above the following levels: maximum incremental cancer risks equal to or greater than 10 in 1 million, cancer burden equal to or greater than 1.0, total acute non-cancer health hazard index equal to or greater than 1.0, or total chronic non-cancer health hazard index equal to or greater than 1.0 (SDAPCD 2017b).

The proposed project does not currently include specific stationary sources that would generate TACs. If stationary sources with the potential to emit TACs were to be included as part of the proposed project—or if they were added at a later date—those sources would be subject to SDAPCD Rule 1210 and would be subject to public notification and risk reduction requirements.

### 2.2.3.2 San Diego Association of Governments

SANDAG is the regional planning agency for the County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SANDAG serves as the federally designated metropolitan planning organization for the County. With respect to air quality planning and other regional issues, SANDAG has prepared San Diego Forward: The Regional Plan (Regional Plan) for the San Diego region (SANDAG 2015). The Regional Plan combines the big-picture vision for how the region will grow over the next 35 years with an implementation program to help make that vision a reality. The Regional Plan, including its Sustainable Communities Strategy (SCS), is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so that it meets the diverse needs of the San Diego region through 2050.

In regards to air quality, the Regional Plan sets the policy context in which SANDAG participates in and responds to the air district's air quality plans and builds off the air district's air quality plan processes that are designed to meet health-based criteria pollutant standards in several ways (SANDAG 2015). First, it complements air quality plans by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in air quality plans. Second, the Regional Plan emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

On September 23, 2016, SANDAG's Board of Directors adopted the final 2016 Regional Transportation Improvement Program (RTIP), which is a multibillion-dollar, multiyear program of proposed major transportation projects in the San Diego region. Transportation projects funded with federal, state, and TransNet (the San Diego transportation sales tax program) must be included in an approved RTIP. The programming of locally funded projects also may be programmed at the discretion of the agency. The 2016 RTIP covers five fiscal years and incrementally implements the Regional Plan (SANDAG 2016). The latest draft of the 2021 Regional Plan was released in May 2021 and at its meeting on February 26, 2021, the SANDAG Board of Directors adopted the final 2021 RTIP. The 2021 RTIP and its conformity determination were approved by FHWA and FTA on April 16, 2021. The 2021 Regional Plan provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources (SANDAG 2021). The plan is the result of years of planning, data analysis, and community engagement to reimagine the San Diego region with a transformative transportation system, a sustainable pattern of growth and development, and innovative demand and management strategies.

The 2021 Regional Plan includes a Sustainable Communities Strategy (SCS), as required by California Senate Bill 375 (SB 375), for the San Diego region. This SCS describes coordinated transportation and land use planning that exceeds the state's target for reducing per capita GHG emissions set by the California Air Resources Board. The state-mandated target is a 19% reduction—compared with 2005—in per capita GHG emissions from cars and light-duty trucks by 2035. The 2021 Regional Plan achieves a 20% reduction by 2035.

The 2021 Regional Plan also puts forth a forecasted development pattern that is driven by regional goals for sustainability, mobility, housing affordability, and economic prosperity.

#### 2.2.3.3 City of San Diego

The San Diego Municipal Code addresses air quality and odor impacts at Chapter 14, Article 2, Division 7 paragraph 142.0710, "Air Contaminant Regulations," which states that air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located (Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000).

## 2.3 Regional and Local Air Quality Conditions

### 2.3.1 San Diego Air Basin Attainment Designation

Pursuant to the 1990 federal CAA amendments, the 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. 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 CAAQS rather than the NAAQS. Table 2 depicts the current attainment status of the SDAB with respect to the NAAQS and CAAQS.

**Table 2. San Diego Air Basin Attainment Classification**

| Pollutant | Designation/Classification | |
|---|---|---|
| | Federal Standards | State Standards |
| Ozone ($O_3$) – 1 hour | Attainment | Nonattainment |
| $O_3$ – (8 hour) | Nonattainment (moderate) | Nonattainment |
| Nitrogen Dioxide ($NO_2$) | Unclassifiable/attainment | Attainment |
| Carbon Monoxide (CO) | Attainment (maintenance) | Attainment |
| Sulfur Dioxide ($SO_2$) | Unclassifiable/attainment | Attainment |
| Coarse Particulate Matter ($PM_{10}$) | Unclassifiable/attainment | Nonattainment |
| Fine Particulate Matter ($PM_{2.5}$) | Unclassifiable/attainment | Nonattainment |
| Lead | Unclassifiable/attainment | Attainment |
| Hydrogen Sulfide | No federal standard | Attainment |
| Sulfates | No federal standard | Unclassified |
| Visibility-Reducing Particles | No federal standard | Unclassified |
| Vinyl Chloride | No federal standard | No designation |

**Sources:** CARB 2022
**Notes:** 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.
If nonattainment for federal standards, a clarifying classification will be provided indicating the severity of the nonattainment status.

In summary, the SDAB is designated as an attainment area for the 1997 8-hour $O_3$ NAAQS and as a nonattainment area for the 2008 8-hour $O_3$ NAAQS. The SDAB is designated as a nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$ CAAQS. The portion of the SDAB where the proposed project would be located is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS.

## 2.3.2 Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. Local ambient air quality is monitored by the SDAPCD. The SDAPCD operates a network of ambient air monitoring stations throughout the County that measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest SDAPCD-operated monitoring station to the proposed project is the Kearny Villa Road monitoring station, which is located approximately 10 miles south of the project site. This Kearny Villa Road monitoring station was used to show the background ambient air quality for $O_3$, $PM_{10}$, $PM_{2.5}$, and $NO_2$ for the project site. The monitoring station located on First Street was the closest to the proposed project that monitored CO and $SO_2$ (15 miles south of the project site). Table 3 presents the most recent background ambient air quality data and number of days exceeding the ambient air quality standards from 2016 to 2018.

## Table 3. Local Ambient Air Quality Data

| Averaging Time | Unit | Agency/ Method | Ambient Air Quality Standard | Measured Concentration by Year | | | Exceedances by Year | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 2021 | 2022 | 2023 | 2021 | 2022 | 2023 |
| **Ozone (O3) – Kearny Villa Road** | | | | | | | | | |
| Maximum 1-hour Concentration | ppm | State | 0.09 | 0.095 | 0.095 | 0.091 | 1 | 1 | 0 |
| Maximum 8-hour Concentration | ppm | State | 0.070 | 0.072 | 0.083 | 0.080 | 2 | 2 | 3 |
| | | Federal | 0.070 | 0.071 | 0.083 | 0.079 | 1 | 2 | 3 |
| **Nitrogen Dioxide (NO2) – Kearny Villa Road** | | | | | | | | | |
| Maximum 1-hour Concentration | ppm | State | 0.18 | 0.059 | 0.051 | 0.038 | 0 | 0 | 0 |
| | | Federal | 0.100 | 0.059 | 0.051 | 0.038 | 0 | 0 | 0 |
| Annual Concentration | ppm | State | 0.030 | 0.005 | 0.008 | 0.006 | 0 | 0 | 0 |
| | | Federal | 0.053 | 0.005 | 0.008 | 0.006 | 0 | 0 | 0 |
| **Carbon Monoxide (CO) – First Street** | | | | | | | | | |
| Maximum 1-hour Concentration | ppm | State | 20 | 1.2 | 1.5 | 1.1 | 0 | 0 | 0 |
| | | Federal | 35 | 1.2 | 1.5 | 1.1 | 0 | 0 | 0 |
| Maximum 8-hour Concentration | ppm | State | 9.0 | 1.1 | 1.1 | 0.9 | 0 | 0 | 0 |
| | | Federal | 9 | 1.1 | 1.1 | 0.9 | 0 | 0 | 0 |
| **Sulfur Dioxide (SO2) – First Street** | | | | | | | | | |
| Maximum 1-hour Concentration | ppm | Federal | 0.075 | 0.001 | 0.001 | 0.001 | 0 | 0 | 0 |
| Maximum 24-hour Concentration | ppm | State | 0.04 | 0.000 | 0.000 | 0.000 | 0 | 0 | 0 |
| | ppm | Federal | 0.140 | 0.000 | 0.000 | 0.000 | 0 | 0 | 0 |
| Annual Concentration | ppm | Federal | 0.030 | 0.000 | 0.000 | 0.000 | 0 | 0 | 0 |
| **Coarse Particulate Matter (PM10)[a] – Kearny Villa Road** | | | | | | | | | |
| Maximum 24-hour Concentration | μg/m3 | State | 50 | — | — | 55 | 0 | 0 | 0 |
| | | Federal | 150 | — | — | 55 | 0 | 0 | 0 |
| Annual Concentration | μg/m3 | State | 20 | — | — | 22 | 0 | 0 | 0 |
| **Fine Particulate Matter (PM2.5)a – Kearny Villa Road** | | | | | | | | | |
| Maximum 24-hour Concentration | μg/m3 | Federal | 35 | 20.9 | 13.9 | 24.5 | 0 | 0 | 0 |
| Annual Concentration | μg/m3 | State | 12 | 7.6 | 6.8 | 7.0 | 0 | 0 | 0 |
| | | Federal | 9.0 | 7.6 | 6.8 | 7.0 | 0 | 0 | 0 |

**Sources:** CARB 2024; SDAPCD 2022, SDAPCD 2023, SDAPCD 2024

**Notes:** ppm = parts per million; μg/m3 = micrograms per cubic meter; — = not available.

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

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 $PM_{2.5}$.

a Measurements of $PM_{10}$ and $PM_{2.5}$ are usually collected every six days and every one to three 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.

# 2.4 Significance Criteria and Methodology

## 2.4.1 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impacts to air quality is based on the City's CEQA Significance Determination Thresholds (City of San Diego 2022). Per the City's CEQA Significance Thresholds, a project would result in significant impacts to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates…As adopted by the South Coast Air Quality Management District (SCAQMD) in their CEQA Air Quality Handbook (Chapter 4), a sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant than is the population at large. Sensitive receptors (and the facilities that house them) in proximity to localized CO sources, toxic air contaminants or odors are of particular concern. Examples include: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playground, child care centers, and athletic facilities;
- Create objectionable odors affecting a substantial number of people; or
- Release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.[3]

In addition to the City's CEQA Significance Determination Thresholds (City of San Diego 2022) general threshold questions, the potential for the proposed project to release substantial quantities of air contaminants that could result in health affects is addressed in the criteria air pollutant emissions, TAC emissions, and odors analysis in accordance with the San Diego Municipal Code. .San Diego Municipal Code, Chapter 14, Article 2, Division 7, Off-Site Development Impact Regulations paragraph 142.0710, Air Contaminant Regulations, states: "Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located." (Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

The SDAPCD Air Quality Significance Thresholds shown in Table 4 were used to determine significance of proposed project-generated construction and operational criteria air pollutants; specifically, the proposed project's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation (as assessed under the threshold criterion 2). In regards to the analysis of potential impacts to sensitive receptors, the City specifically recommends consideration of sensitive receptors in locations such as day care centers, schools, retirement homes, and hospitals, or medical patients in residential homes close to major roadways or stationary sources, which could be impacted by air pollutants. The City also states that the significance of potential odor impacts should be determined based on what is known about the quantity of the odor compound(s) that would result from the project's proposed use(s), the types of neighboring uses potentially affected, the distance(s) between the project's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentration(s) at the receptors.

### Table 4. San Diego Air Pollution Control District Air Quality Significance Thresholds

| Construction Emissions | | | |
|---|---|---|---|
| **Pollutant** | **Total Emissions (Pounds per Day)** | | |
| Respirable Particulate Matter ($PM_{10}$) | 100 | | |
| Fine Particulate Matter ($PM_{2.5}$) | 55 | | |
| Oxides of Nitrogen ($NO_x$) | 250 | | |
| Oxides of Sulfur ($SO_x$) | 250 | | |
| Carbon Monoxide (CO) | 550 | | |
| Volatile Organic Compounds (VOCs) | 137[a] | | |
| **Operational Emissions** | | | |
| **Pollutant** | **Total Emissions** | | |
| | **Pounds per Hour** | **Pounds per Day** | **Tons per Year** |
| $PM_{10}$ | — | 100 | 15 |
| $PM_{2.5}$[b] | — | 55 | 10 |
| $NO_x$ | 25 | 250 | 40 |
| $SO_x$ | 25 | 250 | 40 |
| CO | 100 | 550 | 100 |
| **Operational Emissions** | | | |
| **Pollutant** | **Total Emissions** | | |
| | **Pounds per Hour** | **Pounds per Day** | **Tons per Year** |
| Lead and Lead Compounds | — | 3.2 | 0.6 |
| VOCs | — | 137[a] | 15 |

**Sources:** City of San Diego 2022; SDAPCD 2016b.
**Notes:** — = not available.
a VOC threshold based on the threshold of significance for VOCs from the South Coast Air Quality Management District and the Monterey Bay APCD as stated in the City's Guidelines for Determining Significance.
b The City does not have a threshold for $PM_{2.5}$ so the threshold was adapted from the SDAPCD.

The air quality section of the CEQA Significance Determination Thresholds recognizes attainment status designations for the SDAB and its nonattainment status for both ozone and particulate matter. As such, the document recognizes that all new projects should include measures, pursuant to CEQA, to reduce project-related emissions of ozone precursors and particulate matter to ensure new development does not contribute to San Diego's nonattainment status for these pollutants. 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 (SDAPCD 2016c). The SDAPCD sets forth quantitative emissions 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.

The thresholds listed in Table 4 represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4, the proposed 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.

With respect to odors, 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. 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.

The SDAPCD document, Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments, provides guidance with which to perform health risk assessments (HRAs) within the SDAB. The current SDAPCD thresholds of significance for TAC emissions from the operations of both permitted and non-permitted sources are combined and are less than 10 in 1 million for cancer and less than 1.0 for the chronic hazard index (SDAPCD 2015c).

## 2.4.2 Approach and Methodology

### 2.4.2.1 Construction

Emissions from the construction phase of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.6 (CAPCOA 2022).

As described in Section 1.2, Project Description, the project would result in development of 100 single-family homes and 12 multi-family affordable income rental units on an approximately 40.56-acre project site within the community of Scripps Miramar Ranch, in the City of San Diego, California. For the purposes of modeling, it was assumed that construction of the proposed project would commence in October 2024 and would last approximately 53 months, ending in February 2029. The project was assumed to be constructed in one phase and based on the assumptions (durations are approximate):

- Demolition: 2 months
- Site Preparation: 1 month
- Grading: 13 months
- Building Construction: 31 months
- Paving: 3.5 months
- Architectural Coatings: 2.5 month

The phases listed above would occur sequentially. The estimated construction duration was provided by the project applicant. Detailed construction equipment modeling assumptions are provided in Appendix A, CalEEMod Outputs.

The construction equipment mix used for estimating the construction emissions of the proposed project is based CalEEMod default values per construction phase and is shown in Table 5.

## Table 5. Construction Scenario Assumptions

| Construction Phase | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|
| | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Total Haul Truck Trips | Equipment Type | Quantity | Usage Hours |
| Demolition | 16 | 4 | 196 | Concrete Industrial Saws | 1 | 8 |
| | | | | Excavators | 3 | 8 |
| | | | | Rubber Tired Dozers | 2 | 8 |
| Site Preparation | 18 | 4 | 0 | Rubber Tired Dozers | 3 | 8 |
| | | | | Tractors/Loaders/ Backhoes | 4 | 8 |
| Grading | 20 | 4 | 2,312 | Excavators | 2 | 8 |
| | | | | Graders | 1 | 8 |
| | | | | Rubber Tired Dozers | 1 | 8 |
| | | | | Scrapers | 2 | 8 |
| | | | | Tractors/Loaders/ Backhoes | 2 | 8 |
| Building Construction | 82 | 28 | 0 | Cranes | 1 | 7 |
| | | | | Forklifts | 3 | 8 |
| | | | | Generator Sets | 1 | 8 |
| | | | | Tractors/Loaders/ Backhoes | 3 | 7 |
| | | | | Welders | 1 | 8 |
| Paving | 16 | 0 | 0 | Pavers | 2 | 8 |
| | | | | Paving Equipment | 2 | 8 |
| | | | | Rollers | 2 | 8 |
| Architectural Coating | 104 | 0 | 0 | Air Compressors | 1 | 6 |

**Note:** See Appendix A for details.

For the analysis, it was assumed that heavy construction equipment would be operating five days per week (22 days per month) during proposed project construction. Construction worker and vendor trips were based on CalEEMod default assumptions and rounded up to the nearest whole number to account for whole round trips.

Proposed project grading would include approximately 558,043 cubic yards (cy) of cut and 539,543 cy of fill with an export of 18.500 cy to other construction sites or Hanson Aggregates. Conservatively, 564,798 cy of cut and 546,298 cy of fill with 18,500 cy of export was assumed in the CalEEMod analysis. It is anticipated that earth movement would be primarily, if not completely, accomplished using off-road equipment (e.g., scrapers and excavators).

Construction of proposed project components would be subject to SDAPCD Rule 55, Fugitive Dust Control, which requires that proposed construction include steps to restrict visible emissions of fugitive dust beyond the property line (SDAPCD 2009b). Compliance with Rule 55 would limit fugitive dust ($PM_{10}$ and $PM_{2.5}$) that may be generated during proposed grading and construction activities.

A detailed depiction of the construction schedule—including information regarding phases and equipment used during each phase—is included in Appendix A of this report. The information contained in Appendix A was used as CalEEMod model inputs. In accordance with SDAPCD Rule 55, the applicant shall water during dust generating activities at least two times per day. In accordance with SDAPCD Rule 67.0.1, the applicant shall use architectural coatings that do not exceed 50 grams per liter (g/l) for interior and 100 g/l for exterior applications.

### Health Risk Assessment

An HRA was performed to assess the impact of construction on sensitive receptors proximate to the project site (provided as Appendix B). 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 6.

#### Table 6. AERMOD Principal Parameters

| Parameter | Details |
|---|---|
| Meteorological Data | The latest three-year meteorological data (2014–2016) for the Kearny Villa Road Station from SDAPCD were downloaded and then input to AERMOD. |

### Table 6. AERMOD Principal Parameters

| Parameter | Details |
|---|---|
| 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. |
| Terrain Characteristics | The terrain in the vicinity of the modeled project site is generally flat. The elevation of the modeled site is about 250 to 280 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 10-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. (EPA 2004). |
| Receptors | 50-meter spacing discrete receptors were placed outside the construction area to a distance of 2 km. |

**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 plotfiles from AERMOD were then imported into CARB's Hotspots Analysis and Reporting Program Version 2 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 4.5 years. Based on the HRA included in Appendix B, the maximally exposed individual resident offsite would be located at the north end of Cypress Valley Drive. The results of the HRA are provided in Section 2.5, Impact Analysis, and detailed results and methodology are provided in Appendix B.

## 2.4.2.2 Operation

Emissions from the operational phase of the proposed project were estimated using CalEEMod. Operational year 2029 was assumed as it would be the first full year following completion of proposed construction.

### Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text. The project would prohibit wood-burning fireplaces.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product VOC emissions for the buildings are estimated in CalEEMod based on the floor area of buildings and on the default factor of pounds of VOC per building square foot per day. Consumer products associated with the parking lot and other asphalt surfaces include degreasers, which were estimated based on the square footage of the parking lot and the default factor of pounds of VOC per square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and SDAPCD's Rule 67.0.1 (Architectural Coatings) governs the VOC content for interior and exterior coatings. This rule 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 2015b). The proposed project would use architectural coatings that would not exceed 50 grams per liter for interior applications and 100 grams per liter for exterior applications consistent with SDAPCD Rule 67.0.1. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2022).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

### Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. 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.

### Mobile Sources

Following the completion of construction activities, the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the residents of the proposed project. The maximum weekday trip rates were taken from the Local Mobility Analysis for the project (LLG 2022). The weekend trip rates were adjusted based on CalEEMod default trip rates. CalEEMod default data, including trip characteristics and emissions factors, were used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated use, as modeled within the CalEEMod. Emission factors representing the vehicle mix and emissions for 2029 were used to estimate emissions associated with vehicular sources.

## 2.5 Impact Analysis

***Issue AQ-1. Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?***

As mentioned in Section 2.2.3, Local Regulations, the SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the basin—specifically, the SIP and RAQS.[4] The federal $O_3$ maintenance plan, which is part of the SIP, was adopted in 2012. The most recent $O_3$ attainment plan 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 on a triennial basis. As such, the RAQS was most recently updated in 2022. The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards 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 the County as a whole and the cities in the County, to project future emissions and determine 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 the 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. Implementation of the proposed project would result in an increase in 112 residential units (100 single family homes and 12 multifamily affordable rental units). The Project site is currently zoned as Agricultural-Residential and is designated as Park, open Space, Recreation, and Residential per the City's General Plan. Under the permitted uses within the Agricultural-Residential zone, the site is assumed to have been developed for agricultural uses or low-density single dwelling unit homes with a minimum of 10 acre lots. Considering the site is 40.56 acres, the zoning would allow up to four single-family units. The Scripps Miramar Ranch Community Plan's land use designation for the project site is Very Low Residential and Open Space. The project proposes to increase the residential land use designation to Low Residential land use. The plan currently designates a maximum unit count of 45 for the project site. Overall, considering both land use and zoning, the maximum allowed buildout would be four single-family units under the existing conditions. The rezone would change potential buildout through zoning by 108 units, increasing the maximum from 4 units to 112 units. The community plan amendment would change the maximum unit allocation in Figure 7b from 45 units to 112 units, increasing the identified community plan allowance by 67 units.

Every four years SANDAG works with local jurisdictions, the California State Department of Finance, demographic and economic experts, and stakeholders to create a long-term forecast that predicts what the region will look like in terms of population, housing units, and number of jobs. SANDAG's Series 15 Forecast had a launch year of 2022 and look to year 2050 was recently completed and is being used in the modeling and planning for the 2025 Regional Plan. The Series 15 Forecast estimates that the City would have 553,921 units in 2022 and 645,899 units in 2040 (SANDAG 2024). This would equate to an additional 5,110 units per year from 2022 to 2040.

The City is currently in urgent need for housing and is experiencing a housing shortage, as discussed in the City of San Diego General Plan Housing Element 2021-2029. The City's portion of the County's RHNA target for the 2021-2029 Housing Element period is 108,036 homes (City of San Diego 2020). While the City is planning for additional housing to meet the need and targeted to permit more than 88,000 new housing units between 2010 – 2020, less than half of those units were constructed (42,275) as of December 2019 (City of San Diego 2020). The land use

4 For the purpose of this discussion, the relevant federal air quality plan is the ozone maintenance plan (SDAPCD 2012). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

designation and zoning would allow for a maximum of four units at the project site. Considering this, the proposed addition of 110 units would be 106 units beyond that planned for the site. Regardless, the SANDAG growth forecast is not anticipated to result in a population increase considering there is a shortage of housing to accommodate the existing and planned population.

Although the project proposes a Community Plan Amendment that would increase the residential density of the site, the proposed housing would be growth accommodating. Thus, the project would not directly induce substantial unplanned population growth to the area. In addition, the proposed project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations as detailed in the analysis below. Therefore, a **less than significant** impact would result.

*Issue AQ-2.* ***Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***

Issue AQ-3. ***Would the project exceed 100 pounds per day of Particulate Matter (PM) dust?***

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions violate any air quality standard or contribute substantially to an existing or projected air quality violation or have a cumulatively significant impact on air quality.

## Construction Emissions

Construction of the proposed 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 (worker vehicle trips). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions.

Criteria air pollutant emissions associated with construction activities were quantified using CalEEMod. Default values provided by the program were used where detailed proposed project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.4.2.1, Construction. The information contained in Appendix A was used as CalEEMod inputs.

Development of the proposed project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, asphalt pavement application, and architectural coatings. 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. The proposed project would be subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that the proposed project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust ($PM_{10}$ and $PM_{2.5}$) generated during grading and construction activities. To account for dust control measures in the calculations, the proposed project would ensure that active sites be watered at least three times daily as a condition of approval.

Exhaust from internal combustion engines used by construction equipment and vehicles would result in emissions of VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$. The application of asphalt pavement and architectural coatings would also produce VOC emissions.

Table 7 shows the estimated maximum daily construction emissions associated with construction of the proposed project. Complete details of the emissions calculations are provided in Appendix A.

## Table 7. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

| Year | VOC | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| **Summer** | | | | | | |
| 2024 | — | — | — | — | — | — |
| 2025 | 3.29 | 30.6 | 29.6 | 0.07 | 10.8 | 4.89 |
| 2026 | 1.39 | 11.00 | 16.9 | 0.03 | 1.26 | 0.57 |
| 2027 | 1.34 | 10.40 | 16.7 | 0.03 | 1.22 | 0.53 |
| 2028 | 1.29 | 9.93 | 16.5 | 0.03 | 1.18 | 0.50 |
| 2029 | — | — | — | — | — | — |
| **Winter** | | | | | | |
| 2024 | 3.72 | 36.20 | 33.80 | 0.05 | 21.40 | 11.60 |
| 2025 | 3.39 | 31.80 | 31.00 | 0.07 | 21.20 | 11.40 |
| 2026 | 3.13 | 28.20 | 28.70 | 0.07 | 10.70 | 4.78 |
| 2027 | 1.33 | 10.50 | 16.30 | 0.03 | 1.22 | 0.53 |
| 2028 | 26.1 | 9.99 | 16.10 | 0.03 | 1.29 | 0.50 |
| 2029 | 25.2 | 1.05 | 4.43 | <0.01 | 0.89 | 0.22 |
| **Maximum** | **26.10** | **36.20** | **33.80** | **0.07** | **21.40** | **11.60** |
| *City 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; CalEEMod = California Emissions Estimator Model.
See Appendix A for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. Although not considered mitigation, these emissions reflect the CalEEMod "mitigated" output, which accounts for the required compliance with SDAPCD Rule 55 (Fugitive Dust) and Rule 67.0.1 (Architectural Coatings).

As shown in Table 7, daily construction emissions would not exceed the significance thresholds for any criteria air pollutant. Particulate matter emissions would also not exceed 100 pounds per day. Therefore, impacts during construction would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts would be **less than significant.**

### Operational Emissions

Operation of the proposed project would generate VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$ emissions from mobile sources (vehicle trips), area sources (consumer products, landscape maintenance equipment), and energy sources. As discussed in Section 2.4.2.2, Operation, pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on project-specific trip rates. CalEEMod default values were used to estimate emissions from the proposed project area and energy sources.

Table 8 presents the maximum daily area, energy, and mobile source emissions associated with operation (Year 2027) of the proposed project without mitigation. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix A.

## Table 8. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

| Emission Source | VOC | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| Summer | | | | | | |
| Area | 5.44 | 1.08 | 6.80 | 0.01 | 0.08 | 0.09 |
| Energy | 0.04 | 0.76 | 0.32 | <0.01 | 0.06 | 0.06 |
| Mobile | 4.15 | 2.79 | 30.30 | 0.08 | 2.75 | 0.53 |
| **Summer Total** | **9.63** | **4.63** | **37.42** | **0.09** | **2.89** | **0.68** |
| Winter | | | | | | |
| | 4.88 | 1.02 | 0.43 | 0.01 | 0.08 | 0.08 |
| | 0.04 | 0.76 | 0.32 | <0.01 | 0.06 | 0.06 |
| | 4.08 | 3.06 | 28.60 | 0.07 | 2.75 | 0.53 |
| Winter Total | 8.99 | 4.84 | 29.35 | 0.08 | 2.89 | 0.67 |
| **Maximum Total** | **9.63** | **4.84** | **37.42** | **0.09** | **2.89** | **0.68** |
| *City 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; CalEEMod = California Emissions Estimator Model. ; <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. These emissions reflect the CalEEMod "mitigated" output, which accounts for compliance with SDAPCD Rule 67.0.1 (Architectural Coatings).

As shown in Table 9, the combined daily area, energy, and mobile source emissions would not exceed the City's operational thresholds for VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$. Particulate matter emissions would also not exceed 100 pounds per day. Impacts during operation would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts would be **less than significant.**

Furthermore, as the project would be built over five years, with some occupancy occurring during construction of other units, the overlap of construction and operational emissions was evaluated to determine the peak day. As a conservative approach, the maximum daily construction emissions were added to the maximum operational emissions for each air pollutant. This assumes maximum construction operations would occur at the same time as maximum operational emissions. This is highly conservative as the maximum operational emissions won't be achieved until construction is complete. Table 9 shows the maximum overlap of construction and operational emissions from the proposed project.

### Table 9. Estimated Maximum Daily Overlap between Construction and Operational Criteria Air Pollutant Emissions

| Emission Source | VOC | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| Construction | 26.10 | 36.20 | 33.80 | 0.07 | 21.40 | 11.60 |
| Operation | 9.63 | 4.84 | 37.42 | 0.09 | 2.89 | 0.68 |
| Total | 35.73 | 41.04 | 71.22 | 0.16 | 24.29 | 12.28 |
| *City 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; CalEEMod = California Emissions Estimator Model.

See Appendix A for complete results. Maximum daily overlap of construction and operation would not exceed the operational emissions threshold or the 100 pounds per day threshold of $PM_{10}$. Impacts would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts would be **less than significant.**

## Cumulative Analysis

The SDAB has been designated as a federal nonattainment area for $O_3$ and a state nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$. The poor air quality in the SDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOCs and $NO_x$ for $O_3$) potentially contribute to poor air quality. 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, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, a project would only be considered to have a significant cumulative impact if the project's 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).

Regarding short-term construction impacts, the SDAPCD thresholds of significance are used to determine whether the project may have a short-term cumulative impact. As shown in Table 7, the project would not exceed any criteria air pollutant during construction. Therefore, the project would have a less than significant cumulative impact during construction.

Additionally, for the SDAB, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing cumulative operational emissions in 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 upon which the RAQS is based would have the potential to result in cumulative operational impacts if they represent development and population increases beyond regional projections.

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 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 stated previously, the proposed project would not result in significant regional growth that is not accounted for within the RAQS. As a result, the proposed project would not result in a cumulatively considerable contribution to pollutant emissions. Cumulative impacts would be **less than significant** during construction and operation.

***Issue AQ-4. Would the proposed project expose sensitive receptors to substantial pollutant concentrations?***

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 City (City of San Diego 2022), include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. As such, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest sensitive receptors to the proposed project are residences and the park adjacent to the property boundaries.

## Health Impacts of Toxic Air Contaminants

Division 7, Off-Site Development Impact Regulations, Section 142.0710, states the following: "Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

The proposed project would not result in the generation of smoke, charred paper, soot, grime, carbon, noxious acids, or toxic fumes. As demonstrated in Tables 7, 8, and 9 criteria air pollutants, including particulate matter, during construction and operation of the project would be below City thresholds of significance and therefore would not represent a release substantial quantities of air contaminants beyond the project boundaries.

### Construction Health Risk

"Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard OEHHA risk-assessment methodology (OEHHA 2015). In addition, some TACs have noncarcinogenic effects. TACs that would potentially be emitted during construction activities would be DPM emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB ATCMs to reduce DPM emissions. According to the OEHHA, HRAs should be based on a 30-year exposure duration based on typical residency period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). The duration of proposed construction activities would be approximately 53 months. After proposed construction is completed, there would be no long-term source of TAC emissions during operation.

An HRA was performed to evaluate the risk from diesel exhaust emissions on existing sensitive receptors from construction activities. The HRA methodology was described in Section 2.4.2.1, 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 | 45.20 | 10.0 | **Potentially Significant** |
| HIC | Not Applicable | 0.02 | 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 above 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 potentially expose sensitive receptors to substantial pollutant concentrations and would result in a **potentially significant** impact and thus requires mitigation.

### Mitigation Measures

To reduce the potential for criteria air pollutants, specifically exhaust $PM_{10}$, as a result of construction of the project, the applicant shall implement the following mitigation measure (MM):

MM-AQ-1: Prior to the start of construction activities and issuance of grading permits, the project applicant, or its designee, shall ensure that all 75 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.

### Level of Significance After Mitigation

As shown in Table 10, the construction HRA results from the unmitigated scenario show cancer risks exceeding the 10 in 1 million threshold and thus a potentially significant impact at the maximally exposed individual residential receptors. Implementation of MM-AQ-1 would reduce project construction-generated DPM missions to the extent feasible. The HRA results after incorporation of MM-AQ-1 are presented in Table 11.

### Table 11. Construction Health Risk Assessment Results – Mitigated

| Impact Parameter | Units | Project Impact | CEQA Threshold | Level of Significance |
|---|---|---|---|---|
| Maximum Individual Cancer Risk – Residential | Per Million | 8.52 | 10 | Less than significant |
| Chronic Hazard Index – Residential | Index Value | 0.004 | 1.0 | Less than Significant |

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

Implementation of MM-AQ-1 would reduce construction-generated health risks to levels below thresholds. Thus, impacts would be less than significant with mitigation.

### Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel would add to regional trip generation and increase the VMT within the local airshed and the SDAB. Locally, project-related traffic would 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 SDAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. To verify that the proposed 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 potential for CO hotspots was evaluated based on the results of the traffic report. City of San Diego's Significance Determination Thresholds (City of San Diego 2022) CO hotspot screening guidance was followed to determine if the project would require a site-specific hotspot analysis. The City recommends that a quantitative analysis of CO hotspots be performed if a proposed development causes a six-lane or four-lane roadway to deteriorate to a LOS E or worse, causes a six-lane roadway to drop to LOS F, or if a proposed development is within 400 feet of a sensitive receptor and the LOS is D or worse. The project's Local Mobility Analysis determined that with the addition of Project traffic all intersections, including:

- Scripps Poway Parkway / Spring Canyon Road
- Scripps Poway Parkway / Cypress Canyon Road
- Scripps Poway Parkway / Angelique Street / Springbrook Drive
- Angelique Street / Cypress Canyon Park Drive
- Angelique Street / Cypress Canyon Road
- Cypress Canyon Park Drive / Cypress Canyon Road
- Spring Canyon Road / Pomerado Road / Cypress Canyon Park Drive
- Spring Canyon Road / Stonebridge Parkway

would continue to operate at acceptable LOS D or better and therefore would not exceed the City's screening guidance for CO hotspots (LLG 2022). Therefore, a CO hotspot analysis is not needed, and the proposed project would have a **less than significant impact.**

## Health Impacts of Other Criteria Air Pollutants

Construction and operation of the proposed project would not result in emissions that exceed the SDAPCD's emission thresholds for any criteria air pollutants. Regarding VOCs, some VOCs are associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the 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 the 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 2.1.2, Pollutants and Effects, 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 $O_3$ ambient air quality standards tend to occur between April and October when solar radiation is highest.

Regarding $NO_2$, according to the construction emissions analysis, construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for $NO_2$. As described in Section 2.1.2, health impacts from exposure to $NO_2$ and $NO_x$ 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. Additionally, off-road construction equipment would operate at various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the proposed project would not require any stationary emission sources that would create substantial, localized $NO_x$ impacts. Therefore, health impacts would be considered **less than significant.**

The VOC and $NO_x$ emissions, as described previously, would minimally contribute to regional $O_3$ concentrations and its 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 that the proposed 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 proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. Likewise, $PM_{10}$ and $PM_{2.5}$ would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the SDAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates.

Based on the preceding considerations, health impacts associated with criteria air pollutants would be **less than significant.**

***Issue AQ-5. Would the proposed project create objectionable odors affecting a substantial number of people?***

Section 41700 of the California Health and Safety Code and SDAPCD Rule 51 (Public Nuisance), prohibit emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Projects required to obtain permits from SDAPCD are evaluated by SDAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

SDAPCD Rule 51 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. 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. Odor issues are very subjective by the nature of odors themselves and due to the fact that their measurements are difficult to quantify. As a result, this guideline is qualitative and will focus on the existing and potential surrounding uses and location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors: the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

### Construction

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the proposed project. Potential odors produced during proposed construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be **less than significant.**

### Operation

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The proposed project includes residential uses. Therefore, proposed project operations would result in an odor impact that would be **less than significant.**

*Issue AQ-6.* ***Would the project result in substantial alteration of air movement in the area of the project?***

The proposed project is situated on a 40.56-acre within the Scripps Miramar Ranch Community Plan Area, The project site surrounded by existing residential developments, open space, and parkland. Given the project's location within an already developed area, the construction of new residential buildings would not substantially alter air movement in the area as discussed below.

This issue of alteration of air movement is usually associated with placement of tall structures in proximity that can result in tunneling of air movement in an area that was previously unobstructed. This typically occurs in developed urban areas with tall buildings that create a wind tunnel effect. In the case of the project, the proposed residential units would not include tall structures in proximity resulting in tunneling of air movement. The nearby open space and parkland, along with the surrounding residential developments, help to maintain natural airflow patterns. Furthermore, the scale of the proposed development is consistent with the existing residential uses in the area and does not involve the introduction of large structures or significant landform alterations that would impede or redirect air currents in a substantial manner.

Given that the project site is surrounded by similar land uses and topographical features, and considering the project does not include tall structures in proximity the project would not result in a substantial alteration of air movement within the area. The project is designed to integrate with the existing neighborhood and topography, thereby maintaining the current air circulation patterns typical of the Scripps Miramar Ranch Community Plan Area.

In summary, the residential development would not significantly affect air movement in the area, as it aligns with existing development patterns and topographical features that contribute to the natural air circulation in the region. Therefore, proposed project operations would result in an impact that would be less than significant.

# 3 References Cited

California Department of Public Health. 2017. Epidemiologic Summary of Coccidioidomycosis in California, 2016. June. Accessed November 2017. https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CocciEpiSummary2016.pdf.

CAPCOA (California Air Pollution Control Officers Association). 2022. *California Emissions Estimator Model (CalEEMod) User's Guide Version* 2022.1.1.6 https://caleemod.com/user-guide

CARB (California Air Resources Board). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000. Accessed August 2016. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf.

CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Accessed August 2016. http://www.arb.ca.gov/ch/landuse.htm.

CARB. 2016a. "Glossary of Air Pollution Terms." CARB website. Accessed June 2016. http://www.arb.ca.gov/html/gloss.htm.

CARB. 2016b. "Ambient Air Quality Standards." May 4, 2016. Accessed August 2016. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

CARB. 2016c. "Overview: Diesel Exhaust and Health." April 12, 2016. Accessed December 2016. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

CARB. 2019. "iADAM: Air Quality Data Statistics." Accessed July 2016. http://www.arb.ca.gov/adam/topfour/topfour1.php.

CARB. 2022. "Area Designation Maps/State and National." Last updated November 2022. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

Caltrans (California Department of Transportation). 2020. Performance Measurement System (PeMS). Accessed March 2020. http://pems.dot.ca.gov/.

City of San Diego. 2003. Trip Generation Manual. May. Accessed June 2021. https://www.sandiego.gov/sites/default/files/legacy/planning/documents/pdf/trans/tripmanual.pdf.

City of San Diego. 2008. "Conservation Element." In *City of San Diego General Plan 2008*. March 10, 2008. Accessed December 2018. https://www.sandiego.gov/planning/genplan#genplan.

City of San Diego. 2010. San Diego Municipal Code, Chapter 14, Article 2, Division 7, Section 142.0710, Air Contaminant Regulations. January 1, 2010. Accessed December 2016. http://docs.sandiego.gov/municode/MuniCodeChapter14/Ch14Art02Division07.pdf.

City of San Diego. 2022. *California Environmental Quality Act Significance Determination Thresholds*. September 2022. Accessed April 2023. https://www.sandiego.gov/sites/default/files/september_2022_ceqa_thresholds_final.pdf

City of San Diego. 2017. Climate Action Plan Consistency Checklist. Revised June 2017.Accessed December 2021. https://www.sandiego.gov/sites/default/files/city_of_san_diego_cap_checklist.pdfCity of San Diego 2020. City of San Diego General Plan 2021-2029 Housing Element. Accessed January 12, 2022. https://www.sandiego.gov/sites/default/files/he_final_print_view_june2021.pdf

County of San Diego. 2007. *Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality*. Department of Planning and Land Use, Department of Public Works. March 19, 2007.

County of San Diego. 2018. County of San Diego Communicable Disease Registry. County of San Diego, Health and Human Services Agency, Public Health Services, Epidemiology and Immunization Services Branch. August 16, 2018.

Dudek. 2023. Greenhouse Gas Technical Report for the Renzulli Estates Project.

EPA. 2003. AP 42, Section 1.6, Wood Residue Combustion in Boilers. September. Accessed July 2020. https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s06.pdf.

EPA (United States Environmental Protection Agency). 2004. User's Guide for the AMS/EPA Regulatory Model – AERMOD. September 2004. Accessed January 2020. https://www3.epa.gov/scram001/7thconf/aermod/aermodugb.pdf

EPA. 2007. The Energy Independence and Security Act of 2007. December 19. Accessed October 2017. https://www.gpo.gov/fdsys/pkg/BILLS-110hr6enr/pdf/BILLS-110hr6enr.pdf.

EPA. 2009. *Integrated Science Assessment for Particulate Matter*. U.S. EPA, EPA/600/R-08/139F, 2009.

EPA. 2013. *Integrated Science Assessment of Ozone and Related Photochemical Oxidants*. U.S. EPA, EPA/600R-10/076F, 2013.

EPA. 2015. Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas - Appendices. November 2015. Accessed January 2020. https://nepis.epa.gov/Exe/ZyPdf.cgi?Dockey=P100NN22.pdf.

EPA. 2016a. "Criteria Air Pollutants." July 21, 2016. Accessed August 2016. https://www.epa.gov/criteria-air-pollutants.

EPA. 2016b. *Integrated Science Assessment for Oxides of Nitrogen-Health Criteria (2016 Final Report)*. U.S. EPA, EPA/600/R-15/068, 2016.

EPA. 2016c. "Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard – Round 3." July 22, 2016. Accessed February 2017. https://www.epa.gov/sites/production/files/2016-07/documents/areadesign.pdf.

EPA. 2016d. “EPA Region 9 Air Quality Maps and Geographic Information.” Last updated April 27, 2016. Accessed August 2016. http://www.epa.gov/region9/air/maps/.

EPA. 2021. AERMOD Implementation Guide. https://gaftp.epa.gov/Air/aqmg/SCRAM/models/preferred/aermod/aermod_implementation_guide.pdf

EPA. 2022. “AirData: Access to Air Pollution Data.” Generated January 10, 2022. http://www.epa.gov/airdata/ad_rep_mon.html.

EPA. 2024. NAAQS Table. https://www.epa.gov/criteria-air-pollutants/naaqs-table

Klepeis, N. et. al. 2001. The National Human Activity Pattern Survey (NHAPS): a resource for assessing exposure to environmental pollutants. Journal of Exposure Analysis and Environmental Epidemiology. 24 July. https://www.nature.com/articles/7500165.

LLG (Linscott, Law & Greenspan, Engineers). 2021. Draft Local Mobility Analysis. October 2021. LLG Ref. 3-20-2372

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. California Environmental Protection Agency, OEHHA. February 2015. Accessed April 3, 2018. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

Pers. comm. Chung, December 28, 2021. Series 12 and 13 Growth Projection Discussion with SANDAG Staff.

SANDAG (San Diego Association of Governments). 2013a. “Series 13 Regional Growth Forecast: City of San Diego.” October 2013. Accessed June 2017. http://datasurfer.sandag.org/download/sandag_forecast_13_jurisdiction_san-diego.pdf.

SANDAG. 2013b. Transportation Forecast Information Center. Accessed March 2020. http://tfic.sandag.org/.

SANDAG. 2015. *San Diego Forward: The Regional Plan*. October 2015. Accessed April 2017. http://www.sdforward.com/pdfs/RP_final/The%20Plan%20-%20combined.pdf.

SANDAG. 2016. *2016 Regional Transportation Improvement Program*. Accessed November 2016. http://www.sandag.org/uploads/publicationid/publicationid_2071_21174.pdf.

SANDAG. 2017a. *Series 13: 2050 Regional Growth Forecast.* Accessed June 2017. http://www.sandag.org/index.asp?classid=12&subclassid=84&projectid=503&fuseaction=projects.detail.

SANDAG. 2017b. *2050 Regional Transportation Plan.* Accessed June 2017. http://www.sandag.org/index.asp?projectid=349&fuseaction=projects.detail.

SANDAG. 2021. 2021 Regional Plan. Adopter December 10, 2021. https://sdforward.com/mobility-planning/2021-regional-plan

SANDAG. 2022. Series 13: 2050 Regional Growth Forecast. Accessed January 12, 2022. https://www.sandag.org/index.asp?classid=12&subclassid=84&projectid=503&fuseaction=projects.detail

SANDAG. 2024. Series 15 Regional Forecast City of San Diego. July. https://adlsdasadsprodpublicwest.z22.web.core.windows.net/datasurfer/sandag_forecast_15_jurisdiction_san%20diego.pdf

SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*.

SDAPCD (San Diego Air Pollution Control District). 1969. Rules and Regulations. Regulation IV. Prohibitions. Rule 51. Nuisance. Effective January 1, 1969.

SDAPCD. 1995. Rules and Regulations. Regulation XV. Federal Conformity. Rule 1501. Conformity with General Federal Actions. Adopted March 7, 1995.

SDAPCD. 1997. Rules and Regulations. Regulation IV. Prohibitions. Rule 50. Visible Emissions. Effective August 13, 1997. Accessed June 2017. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R50.pdf.

SDAPCD. 2005. *Measures to Reduce Particulate Matter in San Diego County*. December 2005. Accessed October 2017. http://www.sdapcd.org/planning/plan.html.

SDAPCD. 2009a. *2009 Regional Air Quality Strategy Revision*. April 2009. Accessed October 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/2009-RAQS.pdf.

SDAPCD. 2009b. SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust. June 24, 2009. Accessed October 2017. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R55.pdf.

SDAPCD. 2012. *Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County*. Adopted December 5, 2012. San Diego, California: SDAPCD. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/8_Hour_O3_Maint-Plan.pdf.

SDAPCD. 2015a. 5-Year Air Quality Monitoring Network Assessment 2015. July. Accessed December 2017. http://www.sdapcd.org/content/dam/sdc/apcd/monitoring/2015_Network_Assessment.pdf.

SDAPCD. 2015b. SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings. June 24. Accessed May 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R67-0-1.pdf.

SDAPCD. 2016a. *2008 Eight-Hour Ozone Attainment Plan for San Diego County*. Updated December 2016. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality %20Planning/8-Hr-O3%20Attain%20Plan-08%20Std.pdf.

SDAPCD. 2016b. *2016 Revision of the Regional Qir Quality Strategy for San Diego County*. December 2016. Accessed June 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/2016%20RAQS.pdf.

SDAPCD. 2016c. SDAPCD Regulation II: Permits; Rule 20.2: New Source Review—Non-Major Sources. January 29, 2016. Accessed October 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Permits/APCD_R20-2.pdf.

SDAPCD. 2017a. Regulation XII. Toxic Air Contaminates; Rule 1200: Toxic Air Contaminates – New Source Review. Accessed October 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Toxic_Air_Cotaminants/ACPD_R1200.pdf.

SDAPCD. 2017b. Regulation XII. Toxic Air Contaminates; Rule 1210: Toxic Air Contaminates – Public Notification and Risk Reduction. Accessed October 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Toxic_Air_Cotaminants/APCD_R1210.pdf.

SDAPCD. 2019. *Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments (HRAs).* May 2019. Accessed January 2020. https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics_Program/APCD_Hot_Spots_Supplemental_Guidelines.pdf.

SDAPCD. 2021. Rule 67.0/1 Architectural Coatings (Rev. Adopted February 10, 2021, Effective January 1, 2022.

Smoki USA. 2019. Smoke Zapper 250. October. Accessed July 2020. https://smokiusa.com/wp-content/uploads/2019/10/SmokeZapper250.pdf.

WRCC (Western Region Climate Center). 2017. Climate Summary for Poway Valley, California. Accessed June 2019. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7111.

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# 4 List of Preparers

David Larocca, Senior Air Quality Specialist

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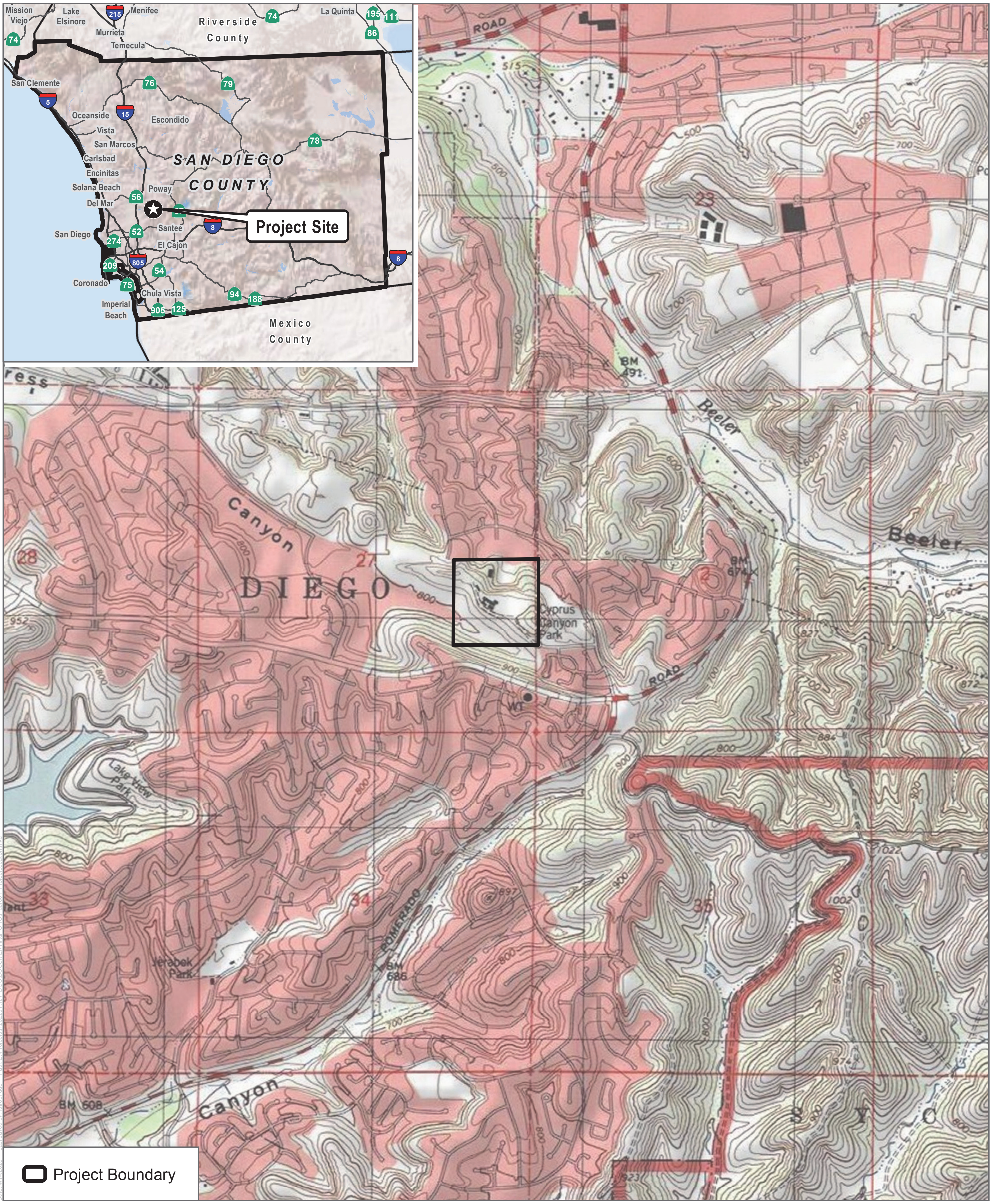


SOURCE: USGS 7.5-Minute Series Poway Quadrangle

DUDEK

0 1,000 2,000 Feet
0 250 500 Meters
1:24,000

**FIGURE 1**

Project Location

Renzulli Estates Project

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SOURCE: SANGIS 2017, Hunsaker and Associates 2022

DUDEK

0 125 250 Feet

**FIGURE 2**

Site Plan

Renzulli Estates Project

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# Appendix A
CalEEMod Outputs

Project Analysis

# Renzulli Estates Detailed Report

## Table of Contents

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Renzulli Estates |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 20.4 |
| Location | 11495 Cypress Canyon Rd, San Diego, CA 92131, USA |
| County | San Diego |
| City | San Diego |
| Air District | San Diego County APCD |
| Air Basin | San Diego |
| TAZ | 6368 |
| EDFZ | 12 |
| Electric Utility | San Diego Gas & Electric |
| Gas Utility | San Diego Gas & Electric |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| Other Asphalt Surfaces | 3.11 | Acre | 3.11 | 0.00 | 0.00 | 0.00 | — | — |
| Single Family Housing | 100 | Dwelling Unit | 32.5 | 195,000 | 1,171,286 | 0.00 | 279 | — |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 12.0 | Dwelling Unit | 0.75 | 12,720 | 0.00 | 0.00 | 33.0 | — |

## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

## 2.1. Construction Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.95 | 3.29 | 30.6 | 29.6 | 0.07 | 1.25 | 9.55 | 10.8 | 1.15 | 3.74 | 4.89 | — | 7,464 | 7,464 | 0.31 | 0.16 | 4.34 | 7,523 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.43 | 26.1 | 36.2 | 33.8 | 0.07 | 1.60 | 19.8 | 21.4 | 1.47 | 10.1 | 11.6 | — | 7,453 | 7,453 | 0.31 | 0.19 | 0.11 | 7,510 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.82 | 2.91 | 21.9 | 21.1 | 0.05 | 0.89 | 6.84 | 7.73 | 0.82 | 2.68 | 3.50 | — | 5,321 | 5,321 | 0.22 | 0.12 | 1.28 | 5,362 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.51 | 0.53 | 4.00 | 3.84 | 0.01 | 0.16 | 1.25 | 1.41 | 0.15 | 0.49 | 0.64 | — | 881 | 881 | 0.04 | 0.02 | 0.21 | 888 |

## 2.2. Construction Emissions by Year, Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.95 | 3.29 | 30.6 | 29.6 | 0.07 | 1.25 | 9.55 | 10.8 | 1.15 | 3.74 | 4.89 | — | 7,464 | 7,464 | 0.31 | 0.16 | 2.22 | 7,523 |
| 2026 | 1.68 | 1.39 | 11.0 | 16.9 | 0.03 | 0.39 | 0.87 | 1.26 | 0.36 | 0.21 | 0.57 | — | 3,847 | 3,847 | 0.16 | 0.15 | 4.34 | 3,899 |
| 2027 | 1.60 | 1.34 | 10.4 | 16.7 | 0.03 | 0.35 | 0.87 | 1.22 | 0.32 | 0.21 | 0.53 | — | 3,820 | 3,820 | 0.16 | 0.14 | 3.93 | 3,869 |
| 2028 | 1.54 | 1.29 | 9.93 | 16.5 | 0.03 | 0.31 | 0.87 | 1.18 | 0.29 | 0.21 | 0.50 | — | 3,790 | 3,790 | 0.13 | 0.14 | 3.54 | 3,839 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 4.43 | 3.72 | 36.2 | 33.8 | 0.05 | 1.60 | 19.8 | 21.4 | 1.47 | 10.1 | 11.6 | — | 5,562 | 5,562 | 0.23 | 0.19 | 0.07 | 5,587 |
| 2025 | 4.03 | 3.39 | 31.8 | 31.0 | 0.07 | 1.37 | 19.8 | 21.2 | 1.26 | 10.1 | 11.4 | — | 7,453 | 7,453 | 0.31 | 0.17 | 0.06 | 7,510 |
| 2026 | 3.75 | 3.13 | 28.2 | 28.7 | 0.07 | 1.13 | 9.55 | 10.7 | 1.04 | 3.74 | 4.78 | — | 7,435 | 7,435 | 0.31 | 0.17 | 0.11 | 7,492 |
| 2027 | 1.59 | 1.33 | 10.5 | 16.3 | 0.03 | 0.35 | 0.87 | 1.22 | 0.32 | 0.21 | 0.53 | — | 3,778 | 3,778 | 0.16 | 0.14 | 0.10 | 3,825 |
| 2028 | 1.54 | 26.1 | 9.99 | 16.1 | 0.03 | 0.31 | 1.01 | 1.29 | 0.29 | 0.24 | 0.50 | — | 3,749 | 3,749 | 0.14 | 0.14 | 0.09 | 3,795 |
| 2029 | 0.50 | 25.2 | 1.05 | 4.43 | < 0.005 | 0.01 | 0.88 | 0.89 | 0.01 | 0.21 | 0.22 | — | 1,000 | 1,000 | 0.02 | 0.04 | 0.07 | 1,011 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.66 | 0.55 | 5.37 | 4.81 | 0.01 | 0.23 | 1.32 | 1.55 | 0.21 | 0.64 | 0.85 | — | 887 | 887 | 0.04 | 0.03 | 0.17 | 896 |
| 2025 | 2.82 | 2.35 | 21.9 | 21.1 | 0.05 | 0.89 | 6.84 | 7.73 | 0.82 | 2.68 | 3.50 | — | 5,321 | 5,321 | 0.22 | 0.12 | 0.68 | 5,362 |
| 2026 | 1.31 | 1.10 | 8.95 | 12.6 | 0.02 | 0.32 | 1.16 | 1.48 | 0.30 | 0.37 | 0.67 | — | 2,950 | 2,950 | 0.12 | 0.11 | 1.28 | 2,986 |
| 2027 | 1.13 | 0.95 | 7.51 | 11.7 | 0.02 | 0.25 | 0.62 | 0.86 | 0.23 | 0.15 | 0.38 | — | 2,703 | 2,703 | 0.11 | 0.10 | 1.21 | 2,737 |
| 2028 | 0.93 | 1.63 | 6.19 | 10.0 | 0.02 | 0.20 | 0.47 | 0.67 | 0.19 | 0.11 | 0.30 | — | 2,173 | 2,173 | 0.08 | 0.07 | 0.81 | 2,197 |
| 2029 | 0.06 | 2.91 | 0.12 | 0.52 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.02 | 0.02 | — | 116 | 116 | < 0.005 | < 0.005 | 0.13 | 118 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.12 | 0.10 | 0.98 | 0.88 | < 0.005 | 0.04 | 0.24 | 0.28 | 0.04 | 0.12 | 0.15 | — | 147 | 147 | 0.01 | < 0.005 | 0.03 | 148 |
| 2025 | 0.51 | 0.43 | 4.00 | 3.84 | 0.01 | 0.16 | 1.25 | 1.41 | 0.15 | 0.49 | 0.64 | — | 881 | 881 | 0.04 | 0.02 | 0.11 | 888 |
| 2026 | 0.24 | 0.20 | 1.63 | 2.30 | < 0.005 | 0.06 | 0.21 | 0.27 | 0.05 | 0.07 | 0.12 | — | 488 | 488 | 0.02 | 0.02 | 0.21 | 494 |
| 2027 | 0.21 | 0.17 | 1.37 | 2.13 | < 0.005 | 0.05 | 0.11 | 0.16 | 0.04 | 0.03 | 0.07 | — | 448 | 448 | 0.02 | 0.02 | 0.20 | 453 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2028 | 0.17 | 0.30 | 1.13 | 1.83 | < 0.005 | 0.04 | 0.09 | 0.12 | 0.03 | 0.02 | 0.05 | — | 360 | 360 | 0.01 | 0.01 | 0.13 | 364 |
| 2029 | 0.01 | 0.53 | 0.02 | 0.09 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | < 0.005 | — | 19.3 | 19.3 | < 0.005 | < 0.005 | 0.02 | 19.5 |

## 2.4. Operations Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.31 | 9.63 | 4.63 | 37.5 | 0.09 | 0.20 | 2.70 | 2.90 | 0.20 | 0.48 | 0.67 | 47.9 | 10,153 | 10,201 | 5.34 | 0.32 | 22.8 | 10,453 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.66 | 9.00 | 4.84 | 29.3 | 0.08 | 0.20 | 2.70 | 2.90 | 0.20 | 0.48 | 0.67 | 47.9 | 9,791 | 9,839 | 5.36 | 0.34 | 2.04 | 10,076 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.67 | 9.05 | 3.95 | 31.3 | 0.08 | 0.13 | 2.62 | 2.75 | 0.13 | 0.46 | 0.59 | 47.9 | 8,620 | 8,668 | 5.32 | 0.32 | 10.4 | 8,908 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.85 | 1.65 | 0.72 | 5.70 | 0.01 | 0.02 | 0.48 | 0.50 | 0.02 | 0.08 | 0.11 | 7.93 | 1,427 | 1,435 | 0.88 | 0.05 | 1.73 | 1,475 |

## 2.5. Operations Emissions by Sector, Unmitigated

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

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.52 | 4.15 | 2.79 | 30.3 | 0.08 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,774 | 7,774 | 0.35 | 0.29 | 21.3 | 7,891 |
| Area | 0.70 | 5.44 | 1.08 | 6.80 | 0.01 | 0.08 | — | 0.08 | 0.09 | — | 0.09 | 0.00 | 1,314 | 1,314 | 0.03 | < 0.005 | — | 1,315 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 5.31 | 9.63 | 4.63 | 37.5 | 0.09 | 0.20 | 2.70 | 2.90 | 0.20 | 0.48 | 0.67 | 47.9 | 10,153 | 10,201 | 5.34 | 0.32 | 22.8 | 10,453 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.45 | 4.07 | 3.06 | 28.6 | 0.07 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,429 | 7,429 | 0.37 | 0.31 | 0.55 | 7,531 |
| Area | 0.12 | 4.88 | 1.02 | 0.43 | 0.01 | 0.08 | — | 0.08 | 0.08 | — | 0.08 | 0.00 | 1,297 | 1,297 | 0.02 | < 0.005 | — | 1,298 |
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 4.66 | 9.00 | 4.84 | 29.3 | 0.08 | 0.20 | 2.70 | 2.90 | 0.20 | 0.48 | 0.67 | 47.9 | 9,791 | 9,839 | 5.36 | 0.34 | 2.04 | 10,076 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.26 | 3.90 | 2.93 | 27.7 | 0.07 | 0.05 | 2.62 | 2.67 | 0.05 | 0.46 | 0.51 | — | 7,256 | 7,256 | 0.35 | 0.30 | 8.94 | 7,361 |
| Area | 0.32 | 5.11 | 0.26 | 3.24 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | 0.00 | 300 | 300 | 0.01 | < 0.005 | — | 300 |
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 4.67 | 9.05 | 3.95 | 31.3 | 0.08 | 0.13 | 2.62 | 2.75 | 0.13 | 0.46 | 0.59 | 47.9 | 8,620 | 8,668 | 5.32 | 0.32 | 10.4 | 8,908 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.78 | 0.71 | 0.53 | 5.05 | 0.01 | 0.01 | 0.48 | 0.49 | 0.01 | 0.08 | 0.09 | — | 1,201 | 1,201 | 0.06 | 0.05 | 1.48 | 1,219 |
| Area | 0.06 | 0.93 | 0.05 | 0.59 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 49.6 | 49.6 | < 0.005 | < 0.005 | — | 49.7 |
| Energy | 0.02 | 0.01 | 0.14 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 173 | 173 | 0.02 | < 0.005 | — | 174 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 1.25 | 2.87 | 4.12 | 0.13 | < 0.005 | — | 8.35 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Waste | — | — | — | — | — | — | — | — | — | — | — | 6.68 | 0.00 | 6.68 | 0.67 | 0.00 | — | 23.4 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |
| Total | 0.85 | 1.65 | 0.72 | 5.70 | 0.01 | 0.02 | 0.48 | 0.50 | 0.02 | 0.08 | 0.11 | 7.93 | 1,427 | 1,435 | 0.88 | 0.05 | 1.73 | 1,475 |

# 3. Construction Emissions Details

## 3.1. Demolition (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.12 | 2.62 | 24.9 | 21.7 | 0.03 | 1.06 | — | 1.06 | 0.98 | — | 0.98 | — | 3,425 | 3,425 | 0.14 | 0.03 | — | 3,437 |
| Demolition | — | — | — | — | — | — | 0.62 | 0.62 | — | 0.09 | 0.09 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.38 | 0.32 | 3.00 | 2.62 | < 0.005 | 0.13 | — | 0.13 | 0.12 | — | 0.12 | — | 413 | 413 | 0.02 | < 0.005 | — | 414 |
| Demolition | — | — | — | — | — | — | 0.07 | 0.07 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.07 | 0.06 | 0.55 | 0.48 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 68.4 | 68.4 | < 0.005 | < 0.005 | — | 68.6 |
| Demolition | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.07 | 0.06 | 0.69 | 0.00 | 0.00 | 0.14 | 0.14 | 0.00 | 0.03 | 0.03 | — | 146 | 146 | 0.01 | 0.01 | 0.02 | 148 |
| Vendor | 0.01 | < 0.005 | 0.15 | 0.07 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 102 | 102 | < 0.005 | 0.01 | 0.01 | 106 |
| Hauling | 0.07 | 0.02 | 1.23 | 0.43 | 0.01 | 0.02 | 0.22 | 0.24 | 0.02 | 0.06 | 0.08 | — | 881 | 881 | 0.05 | 0.14 | 0.05 | 924 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.08 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | < 0.005 | < 0.005 | — | 17.8 | 17.8 | < 0.005 | < 0.005 | 0.03 | 18.0 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 12.3 | 12.3 | < 0.005 | < 0.005 | 0.01 | 12.8 |
| Hauling | 0.01 | < 0.005 | 0.15 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 106 | 106 | 0.01 | 0.02 | 0.10 | 111 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.94 | 2.94 | < 0.005 | < 0.005 | 0.01 | 2.99 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.03 | 2.03 | < 0.005 | < 0.005 | < 0.005 | 2.12 |
| Hauling | < 0.005 | < 0.005 | 0.03 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 17.6 | 17.6 | < 0.005 | < 0.005 | 0.02 | 18.4 |

## 3.3. Site Preparation (2024) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 4.34 | 3.65 | 36.0 | 32.9 | 0.05 | 1.60 | — | 1.60 | 1.47 | — | 1.47 | — | 5,296 | 5,296 | 0.21 | 0.04 | — | 5,314 |
| Dust From Material Movement | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.26 | 0.22 | 2.18 | 2.00 | < 0.005 | 0.10 | — | 0.10 | 0.09 | — | 0.09 | — | 321 | 321 | 0.01 | < 0.005 | — | 322 |
| Dust From Material Movement | — | — | — | — | — | — | 1.19 | 1.19 | — | 0.61 | 0.61 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.04 | 0.40 | 0.36 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 53.2 | 53.2 | < 0.005 | < 0.005 | — | 53.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.22 | 0.22 | — | 0.11 | 0.11 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.07 | 0.78 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.04 | 0.04 | — | 164 | 164 | 0.01 | 0.01 | 0.02 | 167 |
| Vendor | 0.01 | < 0.005 | 0.15 | 0.07 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 102 | 102 | < 0.005 | 0.01 | 0.01 | 106 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 10.1 | 10.1 | < 0.005 | < 0.005 | 0.02 | 10.2 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.18 | 6.18 | < 0.005 | < 0.005 | 0.01 | 6.45 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.67 | 1.67 | < 0.005 | < 0.005 | < 0.005 | 1.69 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.02 | 1.02 | < 0.005 | < 0.005 | < 0.005 | 1.07 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5. Site Preparation (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.94 | 3.31 | 31.6 | 30.2 | 0.05 | 1.37 | — | 1.37 | 1.26 | — | 1.26 | — | 5,295 | 5,295 | 0.21 | 0.04 | — | 5,314 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.06 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.72 | 1.72 | < 0.005 | < 0.005 | — | 1.72 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.06 | 0.73 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.04 | 0.04 | — | 161 | 161 | 0.01 | 0.01 | 0.02 | 163 |
| Vendor | 0.01 | < 0.005 | 0.14 | 0.06 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 100 | 100 | < 0.005 | 0.01 | 0.01 | 104 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.32 | 0.32 | < 0.005 | < 0.005 | < 0.005 | 0.32 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.20 | 0.20 | < 0.005 | < 0.005 | < 0.005 | 0.20 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.05 | 0.05 | < 0.005 | < 0.005 | < 0.005 | 0.05 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.03 | 0.03 | < 0.005 | < 0.005 | < 0.005 | 0.03 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.7. Grading (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.71 | 2.28 | 21.1 | 20.2 | 0.04 | 0.88 | — | 0.88 | 0.81 | — | 0.81 | — | 4,701 | 4,701 | 0.19 | 0.04 | — | 4,717 |
| Dust From Material Movement | — | — | — | — | — | — | 6.56 | 6.56 | — | 2.60 | 2.60 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.49 | 0.42 | 3.86 | 3.68 | 0.01 | 0.16 | — | 0.16 | 0.15 | — | 0.15 | — | 778 | 778 | 0.03 | 0.01 | — | 781 |
| Dust From Material Movement | — | — | — | — | — | — | 1.20 | 1.20 | — | 0.48 | 0.48 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.06 | 0.93 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 190 | 190 | 0.01 | 0.01 | 0.71 | 193 |
| Vendor | 0.01 | < 0.005 | 0.13 | 0.06 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 100 | 100 | < 0.005 | 0.01 | 0.26 | 105 |
| Hauling | 0.04 | 0.01 | 0.75 | 0.28 | < 0.005 | 0.01 | 0.15 | 0.16 | 0.01 | 0.04 | 0.05 | — | 575 | 575 | 0.03 | 0.09 | 1.25 | 604 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.09 | 0.08 | 0.07 | 0.81 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 179 | 179 | 0.01 | 0.01 | 0.02 | 182 |
| Vendor | 0.01 | < 0.005 | 0.14 | 0.06 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 100 | 100 | < 0.005 | 0.01 | 0.01 | 104 |
| Hauling | 0.04 | 0.01 | 0.78 | 0.28 | < 0.005 | 0.01 | 0.15 | 0.16 | 0.01 | 0.04 | 0.05 | — | 575 | 575 | 0.03 | 0.09 | 0.03 | 603 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.05 | 0.59 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 129 | 129 | 0.01 | 0.01 | 0.22 | 131 |
| Vendor | 0.01 | < 0.005 | 0.10 | 0.04 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 71.3 | 71.3 | < 0.005 | 0.01 | 0.08 | 74.5 |
| Hauling | 0.03 | 0.01 | 0.56 | 0.20 | < 0.005 | 0.01 | 0.10 | 0.11 | 0.01 | 0.03 | 0.04 | — | 410 | 410 | 0.02 | 0.06 | 0.38 | 430 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.11 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.01 | 0.01 | — | 21.3 | 21.3 | < 0.005 | < 0.005 | 0.04 | 21.6 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 11.8 | 11.8 | < 0.005 | < 0.005 | 0.01 | 12.3 |
| Hauling | 0.01 | < 0.005 | 0.10 | 0.04 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 67.8 | 67.8 | < 0.005 | 0.01 | 0.06 | 71.1 |

## 3.9. Grading (2026) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.62 | 3.04 | 27.2 | 27.6 | 0.06 | 1.12 | — | 1.12 | 1.03 | — | 1.03 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,621 |
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.23 | 0.19 | 1.70 | 1.73 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 413 | 413 | 0.02 | < 0.005 | — | 415 |
| Dust From Material Movement | — | — | — | — | — | — | 0.58 | 0.58 | — | 0.23 | 0.23 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04 | 0.03 | 0.31 | 0.32 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 68.4 | 68.4 | < 0.005 | < 0.005 | — | 68.6 |
| Dust From Material Movement | — | — | — | — | — | — | 0.11 | 0.11 | — | 0.04 | 0.04 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.06 | 0.76 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 176 | 176 | 0.01 | 0.01 | 0.02 | 178 |
| Vendor | 0.01 | < 0.005 | 0.13 | 0.06 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 98.3 | 98.3 | < 0.005 | 0.01 | 0.01 | 103 |
| Hauling | 0.04 | 0.01 | 0.75 | 0.28 | < 0.005 | 0.01 | 0.15 | 0.16 | 0.01 | 0.04 | 0.05 | — | 563 | 563 | 0.03 | 0.09 | 0.03 | 591 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 11.1 | 11.1 | < 0.005 | < 0.005 | 0.02 | 11.3 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.15 | 6.15 | < 0.005 | < 0.005 | 0.01 | 6.43 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | < 0.005 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 35.2 | 35.2 | < 0.005 | 0.01 | 0.03 | 37.0 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.84 | 1.84 | < 0.005 | < 0.005 | < 0.005 | 1.86 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.02 | 1.02 | < 0.005 | < 0.005 | < 0.005 | 1.06 |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.83 | 5.83 | < 0.005 | < 0.005 | 0.01 | 6.13 |

## 3.11. Building Construction (2026) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.83 | 0.70 | 6.42 | 8.45 | 0.02 | 0.25 | — | 0.25 | 0.23 | — | 0.23 | — | 1,562 | 1,562 | 0.06 | 0.01 | — | 1,568 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.15 | 0.13 | 1.17 | 1.54 | < 0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 259 | 259 | 0.01 | < 0.005 | — | 260 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.35 | 0.30 | 0.23 | 3.54 | 0.00 | 0.00 | 0.69 | 0.69 | 0.00 | 0.16 | 0.16 | — | 762 | 762 | 0.04 | 0.03 | 2.67 | 774 |
| Vendor | 0.05 | 0.02 | 0.89 | 0.42 | < 0.005 | 0.01 | 0.18 | 0.19 | 0.01 | 0.05 | 0.06 | — | 688 | 688 | 0.03 | 0.10 | 1.68 | 720 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.32 | 0.29 | 0.26 | 3.13 | 0.00 | 0.00 | 0.69 | 0.69 | 0.00 | 0.16 | 0.16 | — | 720 | 720 | 0.04 | 0.03 | 0.07 | 729 |
| Vendor | 0.05 | 0.02 | 0.92 | 0.42 | < 0.005 | 0.01 | 0.18 | 0.19 | 0.01 | 0.05 | 0.06 | — | 688 | 688 | 0.03 | 0.10 | 0.04 | 718 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.21 | 0.19 | 0.17 | 2.06 | 0.00 | 0.00 | 0.45 | 0.45 | 0.00 | 0.10 | 0.10 | — | 473 | 473 | 0.02 | 0.02 | 0.75 | 480 |
| Vendor | 0.04 | 0.01 | 0.60 | 0.27 | < 0.005 | 0.01 | 0.12 | 0.12 | 0.01 | 0.03 | 0.04 | — | 448 | 448 | 0.02 | 0.06 | 0.47 | 468 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.03 | 0.03 | 0.38 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 78.4 | 78.4 | < 0.005 | < 0.005 | 0.12 | 79.5 |
| Vendor | 0.01 | < 0.005 | 0.11 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 74.2 | 74.2 | < 0.005 | 0.01 | 0.08 | 77.6 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.13. Building Construction (2027) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.88 | 0.74 | 6.71 | 9.24 | 0.02 | 0.24 | — | 0.24 | 0.22 | — | 0.22 | — | 1,712 | 1,712 | 0.07 | 0.01 | — | 1,718 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.16 | 0.13 | 1.22 | 1.69 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 283 | 283 | 0.01 | < 0.005 | — | 284 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.32 | 0.29 | 0.20 | 3.36 | 0.00 | 0.00 | 0.69 | 0.69 | 0.00 | 0.16 | 0.16 | — | 749 | 749 | 0.03 | 0.03 | 2.43 | 761 |
| Vendor | 0.05 | 0.02 | 0.85 | 0.40 | < 0.005 | 0.01 | 0.18 | 0.19 | 0.01 | 0.05 | 0.06 | — | 673 | 673 | 0.03 | 0.09 | 1.50 | 703 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.31 | 0.28 | 0.25 | 2.95 | 0.00 | 0.00 | 0.69 | 0.69 | 0.00 | 0.16 | 0.16 | — | 708 | 708 | 0.04 | 0.03 | 0.06 | 717 |
| Vendor | 0.05 | 0.02 | 0.88 | 0.41 | < 0.005 | 0.01 | 0.18 | 0.19 | 0.01 | 0.05 | 0.06 | — | 674 | 674 | 0.03 | 0.09 | 0.04 | 702 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.22 | 0.20 | 0.18 | 2.13 | 0.00 | 0.00 | 0.49 | 0.49 | 0.00 | 0.11 | 0.11 | — | 510 | 510 | 0.03 | 0.02 | 0.75 | 517 |
| Vendor | 0.03 | 0.02 | 0.62 | 0.29 | < 0.005 | 0.01 | 0.13 | 0.13 | 0.01 | 0.04 | 0.04 | — | 481 | 481 | 0.02 | 0.07 | 0.46 | 502 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.04 | 0.03 | 0.39 | 0.00 | 0.00 | 0.09 | 0.09 | 0.00 | 0.02 | 0.02 | — | 84.4 | 84.4 | < 0.005 | < 0.005 | 0.12 | 85.6 |
| Vendor | 0.01 | < 0.005 | 0.11 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 79.6 | 79.6 | < 0.005 | 0.01 | 0.08 | 83.1 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.15. Building Construction (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.18 | 0.99 | 8.92 | 12.9 | 0.02 | 0.30 | — | 0.30 | 0.28 | — | 0.28 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 1.18 | 0.99 | 8.92 | 12.9 | 0.02 | 0.30 | — | 0.30 | 0.28 | — | 0.28 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.57 | 0.48 | 4.28 | 6.20 | 0.01 | 0.14 | — | 0.14 | 0.13 | — | 0.13 | — | 1,149 | 1,149 | 0.05 | 0.01 | — | 1,153 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.10 | 0.09 | 0.78 | 1.13 | < 0.005 | 0.03 | — | 0.03 | 0.02 | — | 0.02 | — | 190 | 190 | 0.01 | < 0.005 | — | 191 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.31 | 0.28 | 0.20 | 3.18 | 0.00 | 0.00 | 0.69 | 0.69 | 0.00 | 0.16 | 0.16 | — | 736 | 736 | 0.01 | 0.03 | 2.20 | 747 |
| Vendor | 0.05 | 0.02 | 0.81 | 0.38 | < 0.005 | 0.01 | 0.18 | 0.19 | 0.01 | 0.05 | 0.06 | — | 656 | 656 | 0.03 | 0.09 | 1.34 | 686 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.31 | 0.28 | 0.23 | 2.78 | 0.00 | 0.00 | 0.69 | 0.69 | 0.00 | 0.16 | 0.16 | — | 695 | 695 | 0.01 | 0.03 | 0.06 | 704 |
| Vendor | 0.05 | 0.02 | 0.84 | 0.40 | < 0.005 | 0.01 | 0.18 | 0.19 | 0.01 | 0.05 | 0.06 | — | 657 | 657 | 0.03 | 0.09 | 0.03 | 686 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.14 | 0.13 | 0.11 | 1.35 | 0.00 | 0.00 | 0.33 | 0.33 | 0.00 | 0.08 | 0.08 | — | 336 | 336 | 0.01 | 0.01 | 0.46 | 341 |
| Vendor | 0.02 | 0.01 | 0.40 | 0.19 | < 0.005 | < 0.005 | 0.08 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 315 | 315 | 0.01 | 0.05 | 0.28 | 329 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.02 | 0.02 | 0.25 | 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.01 | 0.01 | — | 55.7 | 55.7 | < 0.005 | < 0.005 | 0.08 | 56.4 |
| Vendor | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 52.1 | 52.1 | < 0.005 | 0.01 | 0.05 | 54.4 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.17. Paving (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.82 | 0.69 | 6.63 | 9.91 | 0.01 | 0.26 | — | 0.26 | 0.24 | — | 0.24 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.82 | 0.69 | 6.63 | 9.91 | 0.01 | 0.26 | — | 0.26 | 0.24 | — | 0.24 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.17 | 0.14 | 1.36 | 2.04 | < 0.005 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 310 | 310 | 0.01 | < 0.005 | — | 312 |
| Paving | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.25 | 0.37 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 51.4 | 51.4 | < 0.005 | < 0.005 | — | 51.6 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.04 | 0.62 | 0.00 | 0.00 | 0.14 | 0.14 | 0.00 | 0.03 | 0.03 | — | 144 | 144 | < 0.005 | 0.01 | 0.43 | 146 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.04 | 0.54 | 0.00 | 0.00 | 0.14 | 0.14 | 0.00 | 0.03 | 0.03 | — | 136 | 136 | < 0.005 | 0.01 | 0.01 | 137 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.11 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 28.1 | 28.1 | < 0.005 | < 0.005 | 0.04 | 28.5 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.66 | 4.66 | < 0.005 | < 0.005 | 0.01 | 4.72 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.19. Architectural Coating (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.11 | 0.81 | 1.12 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 24.8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.44 | 4.44 | < 0.005 | < 0.005 | — | 4.46 |
| Architectural Coatings | — | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.74 | 0.74 | < 0.005 | < 0.005 | — | 0.74 |
| Architectural Coatings | — | 0.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.39 | 0.35 | 0.29 | 3.53 | 0.00 | 0.00 | 0.88 | 0.88 | 0.00 | 0.21 | 0.21 | — | 882 | 882 | 0.02 | 0.03 | 0.07 | 892 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.12 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 29.6 | 29.6 | < 0.005 | < 0.005 | 0.04 | 30.0 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.90 | 4.90 | < 0.005 | < 0.005 | 0.01 | 4.96 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.21. Architectural Coating (2029) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.79 | 1.11 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 24.8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.09 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.4 | 15.4 | < 0.005 | < 0.005 | — | 15.5 |
| Architectural Coatings | — | 2.86 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.55 | 2.55 | < 0.005 | < 0.005 | — | 2.56 |
| Architectural Coatings | — | 0.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.37 | 0.34 | 0.26 | 3.32 | 0.00 | 0.00 | 0.88 | 0.88 | 0.00 | 0.21 | 0.21 | — | 867 | 867 | 0.02 | 0.03 | 0.07 | 877 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.04 | 0.03 | 0.39 | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.02 | 0.02 | — | 101 | 101 | < 0.005 | < 0.005 | 0.13 | 102 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.07 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | < 0.005 | < 0.005 | — | 16.7 | 16.7 | < 0.005 | < 0.005 | 0.02 | 16.9 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 4.09 | 3.75 | 2.52 | 27.4 | 0.07 | 0.05 | 2.44 | 2.49 | 0.05 | 0.43 | 0.48 | — | 7,031 | 7,031 | 0.31 | 0.26 | 19.3 | 7,137 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.43 | 0.40 | 0.27 | 2.90 | 0.01 | 0.01 | 0.26 | 0.26 | < 0.005 | 0.05 | 0.05 | — | 743 | 743 | 0.03 | 0.03 | 2.04 | 754 |
| Total | 4.52 | 4.15 | 2.79 | 30.3 | 0.08 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,774 | 7,774 | 0.35 | 0.29 | 21.3 | 7,891 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 4.02 | 3.68 | 2.77 | 25.8 | 0.07 | 0.05 | 2.44 | 2.49 | 0.05 | 0.43 | 0.48 | — | 6,720 | 6,720 | 0.33 | 0.28 | 0.50 | 6,811 |
| Apartments Low Rise | 0.43 | 0.39 | 0.29 | 2.73 | 0.01 | 0.01 | 0.26 | 0.26 | < 0.005 | 0.05 | 0.05 | — | 710 | 710 | 0.04 | 0.03 | 0.05 | 719 |
| Total | 4.45 | 4.07 | 3.06 | 28.6 | 0.07 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,429 | 7,429 | 0.37 | 0.31 | 0.55 | 7,531 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 0.71 | 0.65 | 0.49 | 4.61 | 0.01 | 0.01 | 0.44 | 0.44 | 0.01 | 0.08 | 0.09 | — | 1,095 | 1,095 | 0.05 | 0.04 | 1.35 | 1,111 |
| Apartments Low Rise | 0.07 | 0.06 | 0.05 | 0.45 | < 0.005 | < 0.005 | 0.04 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 106 | 106 | 0.01 | < 0.005 | 0.13 | 108 |
| Total | 0.78 | 0.71 | 0.53 | 5.05 | 0.01 | 0.01 | 0.48 | 0.49 | 0.01 | 0.08 | 0.09 | — | 1,201 | 1,201 | 0.06 | 0.05 | 1.48 | 1,219 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 75.9 | 75.9 | 0.06 | 0.01 | — | 79.3 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 5.18 | 5.18 | < 0.005 | < 0.005 | — | 5.41 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 81.1 | 81.1 | 0.06 | 0.01 | — | 84.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 75.9 | 75.9 | 0.06 | 0.01 | — | 79.3 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 5.18 | 5.18 | < 0.005 | < 0.005 | — | 5.41 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 81.1 | 81.1 | 0.06 | 0.01 | — | 84.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 12.6 | 12.6 | 0.01 | < 0.005 | — | 13.1 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartme Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 0.86 | 0.86 | < 0.005 | < 0.005 | — | 0.90 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 13.4 | 13.4 | 0.01 | < 0.005 | — | 14.0 |

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.08 | 0.04 | 0.72 | 0.31 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 914 | 914 | 0.08 | < 0.005 | — | 916 |
| Apartme nts Low Rise | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.2 | 52.2 | < 0.005 | < 0.005 | — | 52.3 |
| Total | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 966 | 966 | 0.09 | < 0.005 | — | 969 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.08 | 0.04 | 0.72 | 0.31 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 914 | 914 | 0.08 | < 0.005 | — | 916 |
| Apartme nts Low Rise | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.2 | 52.2 | < 0.005 | < 0.005 | — | 52.3 |
| Total | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 966 | 966 | 0.09 | < 0.005 | — | 969 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.02 | 0.01 | 0.13 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 151 | 151 | 0.01 | < 0.005 | — | 152 |
| Apartments Low Rise | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.64 | 8.64 | < 0.005 | < 0.005 | — | 8.66 |
| Total | 0.02 | 0.01 | 0.14 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 160 | 160 | 0.01 | < 0.005 | — | 160 |

## 4.3. Area Emissions by Source

### 4.3.2. Unmitigated

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

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.12 | 0.06 | 1.02 | 0.43 | 0.01 | 0.08 | — | 0.08 | 0.08 | — | 0.08 | 0.00 | 1,297 | 1,297 | 0.02 | < 0.005 | — | 1,298 |
| Consumer Products | — | 4.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.37 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.58 | 0.55 | 0.06 | 6.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 17.0 | 17.0 | < 0.005 | < 0.005 | — | 17.0 |
| Total | 0.70 | 5.44 | 1.08 | 6.80 | 0.01 | 0.08 | — | 0.08 | 0.09 | — | 0.09 | 0.00 | 1,314 | 1,314 | 0.03 | < 0.005 | — | 1,315 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.12 | 0.06 | 1.02 | 0.43 | 0.01 | 0.08 | — | 0.08 | 0.08 | — | 0.08 | 0.00 | 1,297 | 1,297 | 0.02 | < 0.005 | — | 1,298 |
| Consumer Products | — | 4.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.37 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 0.12 | 4.88 | 1.02 | 0.43 | 0.01 | 0.08 | — | 0.08 | 0.08 | — | 0.08 | 0.00 | 1,297 | 1,297 | 0.02 | < 0.005 | — | 1,298 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 48.2 | 48.2 | < 0.005 | < 0.005 | — | 48.3 |
| Consumer Products | — | 0.81 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.05 | 0.05 | 0.01 | 0.57 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.39 | 1.39 | < 0.005 | < 0.005 | — | 1.39 |
| Total | 0.06 | 0.93 | 0.05 | 0.59 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 49.6 | 49.6 | < 0.005 | < 0.005 | — | 49.7 |

## 4.4. Water Emissions by Land Use

### 4.4.2. Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 6.73 | 17.0 | 23.7 | 0.70 | 0.02 | — | 46.6 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.81 | 0.35 | 1.16 | 0.08 | < 0.005 | — | 3.84 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 6.73 | 17.0 | 23.7 | 0.70 | 0.02 | — | 46.6 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.81 | 0.35 | 1.16 | 0.08 | < 0.005 | — | 3.84 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 1.11 | 2.81 | 3.93 | 0.12 | < 0.005 | — | 7.72 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.06 | 0.19 | 0.01 | < 0.005 | — | 0.64 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | 1.25 | 2.87 | 4.12 | 0.13 | < 0.005 | — | 8.35 |

## 4.5. Waste Emissions by Land Use

### 4.5.2. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 35.6 | 0.00 | 35.6 | 3.56 | 0.00 | — | 125 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.71 | 0.00 | 4.71 | 0.47 | 0.00 | — | 16.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 35.6 | 0.00 | 35.6 | 3.56 | 0.00 | — | 125 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.71 | 0.00 | 4.71 | 0.47 | 0.00 | — | 16.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 5.90 | 0.00 | 5.90 | 0.59 | 0.00 | — | 20.6 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.78 | 0.00 | 0.78 | 0.08 | 0.00 | — | 2.73 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 6.68 | 0.00 | 6.68 | 0.67 | 0.00 | — | 23.4 |

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.40 | 1.40 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.40 | 1.40 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.23 | 0.23 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

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

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

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

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

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

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Demolition | Demolition | 10/1/2024 | 11/30/2024 | 5.00 | 44.0 | — |
| Site Preparation | Site Preparation | 12/1/2024 | 1/1/2025 | 5.00 | 23.0 | — |
| Grading | Grading | 1/2/2025 | 2/1/2026 | 5.00 | 282 | — |
| Building Construction | Building Construction | 2/2/2026 | 9/1/2028 | 5.00 | 675 | — |
| Paving | Paving | 9/2/2028 | 12/15/2028 | 5.00 | 75.0 | — |
| Architectural Coating | Architectural Coating | 12/15/2028 | 2/28/2029 | 5.00 | 54.0 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | Diesel | Average | 1.00 | 8.00 | 33.0 | 0.73 |
| Demolition | Excavators | Diesel | Average | 3.00 | 8.00 | 36.0 | 0.38 |
| Demolition | Rubber Tired Dozers | Diesel | Average | 2.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Rubber Tired Dozers | Diesel | Average | 3.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

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

| | | | | |
|---|---|---|---|---|
| Demolition | Worker | 16.0 | 12.0 | LDA,LDT1,LDT2 |
| Demolition | Vendor | 4.00 | 7.63 | HHDT,MHDT |
| Demolition | Hauling | 12.0 | 20.0 | HHDT |
| Demolition | Onsite truck | 0.00 | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 18.0 | 12.0 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | 4.00 | 7.63 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | 0.00 | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 12.0 | LDA,LDT1,LDT2 |
| Grading | Vendor | 4.00 | 7.63 | HHDT,MHDT |
| Grading | Hauling | 8.00 | 20.0 | HHDT |
| Grading | Onsite truck | 0.00 | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 82.0 | 12.0 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 28.0 | 7.63 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | 0.00 | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 16.0 | 12.0 | LDA,LDT1,LDT2 |
| Paving | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | 0.00 | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 104 | 12.0 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 0.00 | 7.63 | HHDT,MHDT |

| | | | | |
|---|---|---|---|---|
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | 0.00 | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |

## 5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 420,633 | 140,211 | 0.00 | 0.00 | 8,128 |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (Cubic Yards) | Material Exported (Cubic Yards) | Acres Graded (acres) | Material Demolished (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Demolition | 0.00 | 0.00 | 0.00 | 1,974 | — |
| Site Preparation | 0.00 | 0.00 | 34.5 | 0.00 | — |
| Grading | 0.00 | 18,500 | 846 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 4.21 |

### 5.6.2. Construction Earthmoving Control Strategies

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

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Other Asphalt Surfaces | 3.11 | 100% |
| Single Family Housing | 1.10 | 0% |
| Apartments Low Rise | — | 0% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2024 | 0.00 | 540 | 0.03 | < 0.005 |
| 2025 | 0.00 | 540 | 0.03 | < 0.005 |
| 2026 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2027 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2028 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2029 | 0.00 | 45.1 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 1,000 | 1,011 | 906 | 360,636 | 8,755 | 8,847 | 7,929 | 3,157,222 |
| Apartments Low Rise | 96.0 | 107 | 82.4 | 34,889 | 840 | 935 | 721 | 305,441 |

# 5.10. Operational Area Sources

## 5.10.1. Hearths

### 5.10.1.1. Unmitigated

| Hearth Type | Unmitigated (number) |
| --- | --- |
| Single Family Housing | — |
| Wood Fireplaces | 0 |
| Gas Fireplaces | 55 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 10 |
| Apartments Low Rise | — |
| Wood Fireplaces | 0 |
| Gas Fireplaces | 7 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 1 |

## 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
| --- | --- | --- | --- | --- |
| 420633 | 140,211 | 0.00 | 0.00 | 8,128 |

## 5.10.3. Landscape Equipment

| Season | Unit | Value |
| --- | --- | --- |
| Snow Days | day/yr | 0.00 |

| | | |
|---|---|---|
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

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

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 45.1 | 0.0330 | 0.0040 | 0.00 |
| Single Family Housing | 614,128 | 45.1 | 0.0330 | 0.0040 | 2,851,693 |
| Apartments Low Rise | 41,919 | 45.1 | 0.0330 | 0.0040 | 162,785 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 |
| Single Family Housing | 3,513,307 | 21,393,643 |
| Apartments Low Rise | 421,597 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 |
| Single Family Housing | 23.7 | 0.00 |
| Apartments Low Rise | 3.18 | 0.00 |

# 5.14. Operational Refrigeration and Air Conditioning Equipment

## 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Single Family Housing | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Single Family Housing | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |
| Apartments Low Rise | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Apartments Low Rise | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

# 5.15. Operational Off-Road Equipment

## 5.15.1. Unmitigated

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

# 5.16. Stationary Sources

## 5.16.1. Emergency Generators and Fire Pumps

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

## 5.16.2. Process Boilers

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

## 5.17. User Defined

| Equipment Type | Fuel Type |
| --- | --- |
| — | — |

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
| --- | --- | --- | --- |

### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
| --- | --- | --- |

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

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

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

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

| Climate Hazard | Result for Project Location | Unit |
| --- | --- | --- |

| | | |
|---|---|---|
| Temperature and Extreme Heat | 14.3 | annual days of extreme heat |
| Extreme Precipitation | 3.80 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 16.7 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

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

### 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
| --- | --- | --- | --- | --- |
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

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

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

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

| Indicator | Result for Project Census Tract |
| --- | --- |
| Exposure Indicators | — |
| AQ-Ozone | 53.7 |
| AQ-PM | 42.9 |
| AQ-DPM | 11.5 |
| Drinking Water | 25.0 |
| Lead Risk Housing | 1.78 |

| | |
|---|---|
| Pesticides | 0.00 |
| Toxic Releases | 20.6 |
| Traffic | 30.5 |
| Effect Indicators | — |
| CleanUp Sites | 17.1 |
| Groundwater | 59.6 |
| Haz Waste Facilities/Generators | 10.2 |
| Impaired Water Bodies | 72.2 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 4.66 |
| Cardio-vascular | 10.2 |
| Low Birth Weights | 15.5 |
| Socioeconomic Factor Indicators | — |
| Education | 9.73 |
| Housing | 0.29 |
| Linguistic | 33.3 |
| Poverty | 1.19 |
| Unemployment | 32.3 |

## 7.2. Healthy Places Index Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 99.61503914 |
| Employed | 81.25240601 |
| Median HI | 94.39240344 |

| | |
|---|---|
| Education | — |
| Bachelor's or higher | 95.00834082 |
| High school enrollment | 100 |
| Preschool enrollment | 71.2049275 |
| Transportation | — |
| Auto Access | 86.34672142 |
| Active commuting | 26.02335429 |
| Social | — |
| 2-parent households | 89.45207237 |
| Voting | 93.37867317 |
| Neighborhood | — |
| Alcohol availability | 97.0101373 |
| Park access | 81.35506224 |
| Retail density | 21.53214423 |
| Supermarket access | 34.49249326 |
| Tree canopy | 54.09983318 |
| Housing | — |
| Homeownership | 92.00564609 |
| Housing habitability | 94.36673938 |
| Low-inc homeowner severe housing cost burden | 71.88502502 |
| Low-inc renter severe housing cost burden | 85.57679969 |
| Uncrowded housing | 75.52932119 |
| Health Outcomes | — |
| Insured adults | 93.18619274 |
| Arthritis | 93.0 |
| Asthma ER Admissions | 96.3 |
| High Blood Pressure | 94.9 |

| | |
|---|---|
| Cancer (excluding skin) | 55.0 |
| Asthma | 95.7 |
| Coronary Heart Disease | 96.5 |
| Chronic Obstructive Pulmonary Disease | 97.2 |
| Diagnosed Diabetes | 95.7 |
| Life Expectancy at Birth | 74.7 |
| Cognitively Disabled | 96.9 |
| Physically  Disabled | 98.4 |
| Heart Attack ER Admissions | 89.0 |
| Mental Health Not Good | 94.2 |
| Chronic Kidney Disease | 95.6 |
| Obesity | 94.3 |
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 98.2 |
| Stroke | 97.8 |
| Health Risk Behaviors | — |
| Binge Drinking | 18.0 |
| Current Smoker | 94.5 |
| No Leisure Time for Physical Activity | 95.1 |
| Climate Change Exposures | — |
| Wildfire Risk | 95.2 |
| SLR Inundation Area | 0.0 |
| Children | 14.8 |
| Elderly | 85.6 |
| English Speaking | 60.5 |
| Foreign-born | 57.3 |
| Outdoor Workers | 88.1 |

| | |
|---|---|
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 68.6 |
| Traffic Density | 23.5 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 11.4 |
| Other Decision Support | — |
| 2016 Voting | 94.0 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 2.00 |
| Healthy Places Index Score for Project Location (b) | 96.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

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

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Construction: Construction Phases | Per applicant provided schedule. |
| Construction: Trips and VMT | Trips based on applicant provided information. |
| Operations: Vehicle Data | Based on project TIA. |
| Operations: Hearths | No wood burning hearths. |

Construction HRA CalEEMod Analysis

# Renzulli Estates Construction HRA Detailed Report

## Table of Contents

## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Renzulli Estates Construction HRA |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 20.4 |
| Location | 11495 Cypress Canyon Rd, San Diego, CA 92131, USA |
| County | San Diego |
| City | San Diego |
| Air District | San Diego County APCD |
| Air Basin | San Diego |
| TAZ | 6368 |
| EDFZ | 12 |
| Electric Utility | San Diego Gas & Electric |
| Gas Utility | San Diego Gas & Electric |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| Other Asphalt Surfaces | 3.11 | Acre | 3.11 | 0.00 | 0.00 | 0.00 | — | — |
| Single Family Housing | 100 | Dwelling Unit | 32.5 | 195,000 | 1,171,286 | 0.00 | 279 | — |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 12.0 | Dwelling Unit | 0.75 | 12,720 | 0.00 | 0.00 | 33.0 | — |

## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

## 2.1. Construction Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.88 | 3.27 | 29.9 | 28.6 | 0.06 | 1.24 | 9.21 | 10.4 | 1.14 | 3.66 | 4.79 | — | 6,631 | 6,631 | 0.28 | 0.06 | 0.08 | 6,656 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.40 | 26.0 | 36.0 | 33.2 | 0.06 | 1.60 | 19.7 | 21.3 | 1.47 | 10.1 | 11.6 | — | 6,631 | 6,631 | 0.28 | 0.06 | < 0.005 | 6,656 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.77 | 2.90 | 21.3 | 20.5 | 0.04 | 0.88 | 6.60 | 7.48 | 0.81 | 2.62 | 3.44 | — | 4,734 | 4,734 | 0.20 | 0.04 | 0.02 | 4,752 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.51 | 0.53 | 3.89 | 3.73 | 0.01 | 0.16 | 1.20 | 1.37 | 0.15 | 0.48 | 0.63 | — | 784 | 784 | 0.03 | 0.01 | < 0.005 | 787 |

## 2.2. Construction Emissions by Year, Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.88 | 3.27 | 29.9 | 28.6 | 0.06 | 1.24 | 9.21 | 10.4 | 1.14 | 3.66 | 4.79 | — | 6,631 | 6,631 | 0.28 | 0.06 | 0.03 | 6,656 |
| 2026 | 1.56 | 1.34 | 10.2 | 13.8 | 0.02 | 0.38 | 0.02 | 0.39 | 0.35 | < 0.005 | 0.35 | — | 2,470 | 2,470 | 0.12 | 0.03 | 0.08 | 2,483 |
| 2027 | 1.51 | 1.29 | 9.74 | 13.8 | 0.02 | 0.34 | 0.02 | 0.35 | 0.31 | < 0.005 | 0.31 | — | 2,468 | 2,468 | 0.12 | 0.03 | 0.08 | 2,481 |
| 2028 | 1.45 | 1.24 | 9.26 | 13.7 | 0.02 | 0.30 | 0.02 | 0.32 | 0.28 | < 0.005 | 0.28 | — | 2,467 | 2,467 | 0.12 | 0.03 | 0.07 | 2,480 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 4.40 | 3.71 | 36.0 | 33.2 | 0.05 | 1.60 | 19.7 | 21.3 | 1.47 | 10.1 | 11.6 | — | 5,309 | 5,309 | 0.22 | 0.05 | < 0.005 | 5,328 |
| 2025 | 4.00 | 3.37 | 31.7 | 30.4 | 0.06 | 1.37 | 19.7 | 21.0 | 1.26 | 10.1 | 11.4 | — | 6,631 | 6,631 | 0.28 | 0.06 | < 0.005 | 6,656 |
| 2026 | 3.70 | 3.11 | 27.4 | 27.9 | 0.06 | 1.12 | 9.21 | 10.3 | 1.03 | 3.66 | 4.69 | — | 6,631 | 6,631 | 0.28 | 0.06 | < 0.005 | 6,655 |
| 2027 | 1.50 | 1.28 | 9.76 | 13.9 | 0.02 | 0.34 | 0.02 | 0.35 | 0.31 | < 0.005 | 0.31 | — | 2,469 | 2,469 | 0.12 | 0.03 | < 0.005 | 2,482 |
| 2028 | 1.45 | 26.0 | 9.28 | 13.9 | 0.02 | 0.30 | 0.02 | 0.32 | 0.28 | < 0.005 | 0.28 | — | 2,468 | 2,468 | 0.12 | 0.03 | < 0.005 | 2,480 |
| 2029 | 0.42 | 25.2 | 0.86 | 2.00 | < 0.005 | 0.01 | 0.01 | 0.03 | 0.01 | < 0.005 | 0.02 | — | 164 | 164 | 0.02 | 0.01 | < 0.005 | 167 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.65 | 0.55 | 5.22 | 4.67 | 0.01 | 0.22 | 1.27 | 1.49 | 0.21 | 0.62 | 0.83 | — | 740 | 740 | 0.03 | 0.01 | < 0.005 | 743 |
| 2025 | 2.77 | 2.33 | 21.3 | 20.5 | 0.04 | 0.88 | 6.60 | 7.48 | 0.81 | 2.62 | 3.44 | — | 4,734 | 4,734 | 0.20 | 0.04 | 0.01 | 4,752 |
| 2026 | 1.25 | 1.06 | 8.38 | 10.8 | 0.02 | 0.32 | 0.59 | 0.90 | 0.29 | 0.23 | 0.52 | — | 2,025 | 2,025 | 0.10 | 0.03 | 0.02 | 2,035 |
| 2027 | 1.07 | 0.91 | 6.96 | 9.92 | 0.02 | 0.24 | 0.01 | 0.25 | 0.22 | < 0.005 | 0.22 | — | 1,763 | 1,763 | 0.09 | 0.02 | 0.02 | 1,772 |
| 2028 | 0.88 | 1.60 | 5.84 | 8.76 | 0.01 | 0.20 | 0.01 | 0.21 | 0.18 | < 0.005 | 0.18 | — | 1,500 | 1,500 | 0.07 | 0.02 | 0.02 | 1,507 |
| 2029 | 0.05 | 2.90 | 0.10 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.0 | 19.0 | < 0.005 | < 0.005 | < 0.005 | 19.3 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.12 | 0.10 | 0.95 | 0.85 | < 0.005 | 0.04 | 0.23 | 0.27 | 0.04 | 0.11 | 0.15 | — | 123 | 123 | 0.01 | < 0.005 | < 0.005 | 123 |
| 2025 | 0.51 | 0.43 | 3.89 | 3.73 | 0.01 | 0.16 | 1.20 | 1.37 | 0.15 | 0.48 | 0.63 | — | 784 | 784 | 0.03 | 0.01 | < 0.005 | 787 |
| 2026 | 0.23 | 0.19 | 1.53 | 1.98 | < 0.005 | 0.06 | 0.11 | 0.16 | 0.05 | 0.04 | 0.10 | — | 335 | 335 | 0.02 | < 0.005 | < 0.005 | 337 |
| 2027 | 0.20 | 0.17 | 1.27 | 1.81 | < 0.005 | 0.04 | < 0.005 | 0.05 | 0.04 | < 0.005 | 0.04 | — | 292 | 292 | 0.01 | < 0.005 | < 0.005 | 293 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2028 | 0.16 | 0.29 | 1.07 | 1.60 | < 0.005 | 0.04 | < 0.005 | 0.04 | 0.03 | < 0.005 | 0.03 | — | 248 | 248 | 0.01 | < 0.005 | < 0.005 | 250 |
| 2029 | 0.01 | 0.53 | 0.02 | 0.04 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.14 | 3.14 | < 0.005 | < 0.005 | < 0.005 | 3.20 |

## 2.4. Operations Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.19 | 9.57 | 3.61 | 37.0 | 0.08 | 0.12 | 2.70 | 2.82 | 0.12 | 0.48 | 0.59 | 47.9 | 8,856 | 8,904 | 5.31 | 0.32 | 22.8 | 9,154 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.54 | 8.94 | 3.82 | 28.9 | 0.08 | 0.12 | 2.70 | 2.81 | 0.11 | 0.48 | 0.59 | 47.9 | 8,494 | 8,542 | 5.33 | 0.34 | 2.04 | 8,777 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.64 | 9.04 | 3.72 | 31.2 | 0.08 | 0.12 | 2.62 | 2.73 | 0.11 | 0.46 | 0.57 | 47.9 | 8,329 | 8,376 | 5.32 | 0.32 | 10.4 | 8,616 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.85 | 1.65 | 0.68 | 5.69 | 0.01 | 0.02 | 0.48 | 0.50 | 0.02 | 0.08 | 0.10 | 7.93 | 1,379 | 1,387 | 0.88 | 0.05 | 1.73 | 1,427 |

## 2.5. Operations Emissions by Sector, Unmitigated

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

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.52 | 4.15 | 2.79 | 30.3 | 0.08 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,774 | 7,774 | 0.35 | 0.29 | 21.3 | 7,891 |
| Area | 0.58 | 5.38 | 0.06 | 6.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 17.0 | 17.0 | < 0.005 | < 0.005 | — | 17.0 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 5.19 | 9.57 | 3.61 | 37.0 | 0.08 | 0.12 | 2.70 | 2.82 | 0.12 | 0.48 | 0.59 | 47.9 | 8,856 | 8,904 | 5.31 | 0.32 | 22.8 | 9,154 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.45 | 4.07 | 3.06 | 28.6 | 0.07 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,429 | 7,429 | 0.37 | 0.31 | 0.55 | 7,531 |
| Area | — | 4.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 4.54 | 8.94 | 3.82 | 28.9 | 0.08 | 0.12 | 2.70 | 2.81 | 0.11 | 0.48 | 0.59 | 47.9 | 8,494 | 8,542 | 5.33 | 0.34 | 2.04 | 8,777 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.26 | 3.90 | 2.93 | 27.7 | 0.07 | 0.05 | 2.62 | 2.67 | 0.05 | 0.46 | 0.51 | — | 7,256 | 7,256 | 0.35 | 0.30 | 8.94 | 7,361 |
| Area | 0.29 | 5.10 | 0.03 | 3.14 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.38 | 8.38 | < 0.005 | < 0.005 | — | 8.41 |
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 4.64 | 9.04 | 3.72 | 31.2 | 0.08 | 0.12 | 2.62 | 2.73 | 0.11 | 0.46 | 0.57 | 47.9 | 8,329 | 8,376 | 5.32 | 0.32 | 10.4 | 8,616 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.78 | 0.71 | 0.53 | 5.05 | 0.01 | 0.01 | 0.48 | 0.49 | 0.01 | 0.08 | 0.09 | — | 1,201 | 1,201 | 0.06 | 0.05 | 1.48 | 1,219 |
| Area | 0.05 | 0.93 | 0.01 | 0.57 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.39 | 1.39 | < 0.005 | < 0.005 | — | 1.39 |
| Energy | 0.02 | 0.01 | 0.14 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 173 | 173 | 0.02 | < 0.005 | — | 174 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 1.25 | 2.87 | 4.12 | 0.13 | < 0.005 | — | 8.35 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Waste | — | — | — | — | — | — | — | — | — | — | — | 6.68 | 0.00 | 6.68 | 0.67 | 0.00 | — | 23.4 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |
| Total | 0.85 | 1.65 | 0.68 | 5.69 | 0.01 | 0.02 | 0.48 | 0.50 | 0.02 | 0.08 | 0.10 | 7.93 | 1,379 | 1,387 | 0.88 | 0.05 | 1.73 | 1,427 |

# 3. Construction Emissions Details

## 3.1. Demolition (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.12 | 2.62 | 24.9 | 21.7 | 0.03 | 1.06 | — | 1.06 | 0.98 | — | 0.98 | — | 3,425 | 3,425 | 0.14 | 0.03 | — | 3,437 |
| Demolition | — | — | — | — | — | — | 0.62 | 0.62 | — | 0.09 | 0.09 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.38 | 0.32 | 3.00 | 2.62 | < 0.005 | 0.13 | — | 0.13 | 0.12 | — | 0.12 | — | 413 | 413 | 0.02 | < 0.005 | — | 414 |
| Demolition | — | — | — | — | — | — | 0.07 | 0.07 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.07 | 0.06 | 0.55 | 0.48 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 68.4 | 68.4 | < 0.005 | < 0.005 | — | 68.6 |
| Demolition | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.01 | 0.18 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 5.22 | 5.22 | < 0.005 | < 0.005 | < 0.005 | 5.76 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.92 | 6.92 | < 0.005 | < 0.005 | < 0.005 | 7.26 |
| Hauling | 0.01 | 0.01 | 0.20 | 0.13 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 29.5 | 29.5 | 0.01 | < 0.005 | < 0.005 | 31.0 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.63 | 0.63 | < 0.005 | < 0.005 | < 0.005 | 0.69 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.83 | 0.83 | < 0.005 | < 0.005 | < 0.005 | 0.87 |
| Hauling | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.53 | 3.53 | < 0.005 | < 0.005 | < 0.005 | 3.72 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | 0.11 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.14 | 0.14 | < 0.005 | < 0.005 | < 0.005 | 0.14 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.58 | 0.58 | < 0.005 | < 0.005 | < 0.005 | 0.62 |

## 3.3. Site Preparation (2024) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 4.34 | 3.65 | 36.0 | 32.9 | 0.05 | 1.60 | — | 1.60 | 1.47 | — | 1.47 | — | 5,296 | 5,296 | 0.21 | 0.04 | — | 5,314 |
| Dust From Material Movement | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.26 | 0.22 | 2.18 | 2.00 | < 0.005 | 0.10 | — | 0.10 | 0.09 | — | 0.09 | — | 321 | 321 | 0.01 | < 0.005 | — | 322 |
| Dust From Material Movement | — | — | — | — | — | — | 1.19 | 1.19 | — | 0.61 | 0.61 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.04 | 0.40 | 0.36 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 53.2 | 53.2 | < 0.005 | < 0.005 | — | 53.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.22 | 0.22 | — | 0.11 | 0.11 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.02 | 0.20 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 5.88 | 5.88 | < 0.005 | < 0.005 | < 0.005 | 6.47 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.92 | 6.92 | < 0.005 | < 0.005 | < 0.005 | 7.26 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.36 | 0.36 | < 0.005 | < 0.005 | < 0.005 | 0.39 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.42 | 0.42 | < 0.005 | < 0.005 | < 0.005 | 0.44 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.06 | 0.06 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.07 | 0.07 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5. Site Preparation (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.94 | 3.31 | 31.6 | 30.2 | 0.05 | 1.37 | — | 1.37 | 1.26 | — | 1.26 | — | 5,295 | 5,295 | 0.21 | 0.04 | — | 5,314 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.06 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.72 | 1.72 | < 0.005 | < 0.005 | — | 1.72 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.01 | 0.19 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 5.76 | 5.76 | < 0.005 | < 0.005 | < 0.005 | 6.35 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.82 | 6.82 | < 0.005 | < 0.005 | < 0.005 | 7.16 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 0.01 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 0.01 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.7. Grading (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.71 | 2.28 | 21.1 | 20.2 | 0.04 | 0.88 | — | 0.88 | 0.81 | — | 0.81 | — | 4,701 | 4,701 | 0.19 | 0.04 | — | 4,717 |
| Dust From Material Movement | — | — | — | — | — | — | 6.56 | 6.56 | — | 2.60 | 2.60 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.49 | 0.42 | 3.86 | 3.68 | 0.01 | 0.16 | — | 0.16 | 0.15 | — | 0.15 | — | 778 | 778 | 0.03 | 0.01 | — | 781 |
| Dust From Material Movement | — | — | — | — | — | — | 1.20 | 1.20 | — | 0.48 | 0.48 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.07 | 0.01 | 0.17 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 6.48 | 6.48 | < 0.005 | < 0.005 | 0.01 | 7.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.76 | 6.76 | < 0.005 | < 0.005 | 0.01 | 7.11 |
| Hauling | 0.01 | 0.01 | 0.13 | 0.09 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.1 | 19.1 | < 0.005 | < 0.005 | 0.01 | 20.2 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.07 | 0.06 | 0.02 | 0.21 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 6.40 | 6.40 | < 0.005 | < 0.005 | < 0.005 | 7.06 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.82 | 6.82 | < 0.005 | < 0.005 | < 0.005 | 7.16 |
| Hauling | 0.01 | < 0.005 | 0.13 | 0.09 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.3 | 19.3 | < 0.005 | < 0.005 | < 0.005 | 20.4 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.04 | 0.01 | 0.14 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.56 | 4.56 | < 0.005 | < 0.005 | < 0.005 | 5.02 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.83 | 4.83 | < 0.005 | < 0.005 | < 0.005 | 5.08 |
| Hauling | 0.01 | < 0.005 | 0.09 | 0.06 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | < 0.005 | 14.4 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.03 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.75 | 0.75 | < 0.005 | < 0.005 | < 0.005 | 0.83 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.80 | 0.80 | < 0.005 | < 0.005 | < 0.005 | 0.84 |
| Hauling | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.27 | 2.27 | < 0.005 | < 0.005 | < 0.005 | 2.39 |

## 3.9. Grading (2026) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.62 | 3.04 | 27.2 | 27.6 | 0.06 | 1.12 | — | 1.12 | 1.03 | — | 1.03 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,621 |
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.23 | 0.19 | 1.70 | 1.73 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 413 | 413 | 0.02 | < 0.005 | — | 415 |
| Dust From Material Movement | — | — | — | — | — | — | 0.58 | 0.58 | — | 0.23 | 0.23 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04 | 0.03 | 0.31 | 0.32 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 68.4 | 68.4 | < 0.005 | < 0.005 | — | 68.6 |
| Dust From Material Movement | — | — | — | — | — | — | 0.11 | 0.11 | — | 0.04 | 0.04 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.02 | 0.20 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 6.26 | 6.26 | < 0.005 | < 0.005 | < 0.005 | 6.92 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.71 | 6.71 | < 0.005 | < 0.005 | < 0.005 | 7.05 |
| Hauling | 0.01 | < 0.005 | 0.13 | 0.09 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.0 | 19.0 | < 0.005 | < 0.005 | < 0.005 | 20.0 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.39 | 0.39 | < 0.005 | < 0.005 | < 0.005 | 0.43 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.42 | 0.42 | < 0.005 | < 0.005 | < 0.005 | 0.44 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.18 | 1.18 | < 0.005 | < 0.005 | < 0.005 | 1.25 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.06 | 0.06 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.07 | 0.07 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.20 | 0.20 | < 0.005 | < 0.005 | < 0.005 | 0.21 |

## 3.11. Building Construction (2026) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.83 | 0.70 | 6.42 | 8.45 | 0.02 | 0.25 | — | 0.25 | 0.23 | — | 0.23 | — | 1,562 | 1,562 | 0.06 | 0.01 | — | 1,568 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.15 | 0.13 | 1.17 | 1.54 | < 0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 259 | 259 | 0.01 | < 0.005 | — | 260 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.26 | 0.25 | 0.06 | 0.65 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 26.0 | 26.0 | 0.01 | 0.01 | 0.04 | 28.1 |
| Vendor | 0.02 | 0.01 | 0.30 | 0.21 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 46.6 | 46.6 | 0.01 | 0.01 | 0.04 | 49.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.26 | 0.25 | 0.06 | 0.83 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.7 | 25.7 | 0.02 | 0.01 | < 0.005 | 28.4 |
| Vendor | 0.02 | 0.01 | 0.31 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 47.0 | 47.0 | 0.01 | 0.01 | < 0.005 | 49.4 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.17 | 0.16 | 0.04 | 0.50 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 16.7 | 16.7 | 0.01 | < 0.005 | 0.01 | 18.5 |
| Vendor | 0.01 | 0.01 | 0.20 | 0.14 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 30.5 | 30.5 | 0.01 | < 0.005 | 0.01 | 32.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.01 | 0.09 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.77 | 2.77 | < 0.005 | < 0.005 | < 0.005 | 3.06 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.04 | 5.04 | < 0.005 | < 0.005 | < 0.005 | 5.30 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.13. Building Construction (2027) - Unmitigated

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

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

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.88 | 0.74 | 6.71 | 9.24 | 0.02 | 0.24 | — | 0.24 | 0.22 | — | 0.22 | — | 1,712 | 1,712 | 0.07 | 0.01 | — | 1,718 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.16 | 0.13 | 1.22 | 1.69 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 283 | 283 | 0.01 | < 0.005 | — | 284 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.25 | 0.25 | 0.05 | 0.61 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.5 | 25.5 | 0.01 | 0.01 | 0.04 | 27.6 |
| Vendor | 0.02 | 0.01 | 0.29 | 0.21 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.8 | 45.8 | 0.01 | 0.01 | 0.04 | 48.1 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.25 | 0.24 | 0.06 | 0.78 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.2 | 25.2 | 0.02 | 0.01 | < 0.005 | 27.9 |
| Vendor | 0.02 | 0.01 | 0.31 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 46.2 | 46.2 | 0.01 | 0.01 | < 0.005 | 48.6 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.18 | 0.17 | 0.04 | 0.52 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 18.0 | 18.0 | 0.01 | < 0.005 | 0.01 | 19.5 |
| Vendor | 0.02 | 0.01 | 0.21 | 0.15 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 32.8 | 32.8 | 0.01 | 0.01 | 0.01 | 34.5 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.01 | 0.10 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.98 | 2.98 | < 0.005 | < 0.005 | < 0.005 | 3.23 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.44 | 5.44 | < 0.005 | < 0.005 | < 0.005 | 5.71 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.15. Building Construction (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.18 | 0.99 | 8.92 | 12.9 | 0.02 | 0.30 | — | 0.30 | 0.28 | — | 0.28 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 1.18 | 0.99 | 8.92 | 12.9 | 0.02 | 0.30 | — | 0.30 | 0.28 | — | 0.28 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.57 | 0.48 | 4.28 | 6.20 | 0.01 | 0.14 | — | 0.14 | 0.13 | — | 0.13 | — | 1,149 | 1,149 | 0.05 | 0.01 | — | 1,153 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.10 | 0.09 | 0.78 | 1.13 | < 0.005 | 0.03 | — | 0.03 | 0.02 | — | 0.02 | — | 190 | 190 | 0.01 | < 0.005 | — | 191 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.24 | 0.24 | 0.05 | 0.58 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.1 | 25.1 | 0.01 | 0.01 | 0.03 | 27.1 |
| Vendor | 0.02 | 0.01 | 0.29 | 0.21 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.0 | 45.0 | 0.01 | 0.01 | 0.03 | 47.3 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.24 | 0.23 | 0.06 | 0.74 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 24.7 | 24.7 | 0.01 | 0.01 | < 0.005 | 26.8 |
| Vendor | 0.02 | 0.01 | 0.30 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.4 | 45.4 | 0.01 | 0.01 | < 0.005 | 47.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.11 | 0.03 | 0.33 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 11.9 | 11.9 | 0.01 | < 0.005 | 0.01 | 12.9 |
| Vendor | 0.01 | 0.01 | 0.14 | 0.10 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 21.7 | 21.7 | < 0.005 | < 0.005 | 0.01 | 22.8 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | < 0.005 | 0.06 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.96 | 1.96 | < 0.005 | < 0.005 | < 0.005 | 2.13 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.58 | 3.58 | < 0.005 | < 0.005 | < 0.005 | 3.77 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.17. Paving (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.82 | 0.69 | 6.63 | 9.91 | 0.01 | 0.26 | — | 0.26 | 0.24 | — | 0.24 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.82 | 0.69 | 6.63 | 9.91 | 0.01 | 0.26 | — | 0.26 | 0.24 | — | 0.24 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.17 | 0.14 | 1.36 | 2.04 | < 0.005 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 310 | 310 | 0.01 | < 0.005 | — | 312 |
| Paving | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.25 | 0.37 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 51.4 | 51.4 | < 0.005 | < 0.005 | — | 51.6 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.01 | 0.11 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.89 | 4.89 | < 0.005 | < 0.005 | 0.01 | 5.29 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.01 | 0.14 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.82 | 4.82 | < 0.005 | < 0.005 | < 0.005 | 5.23 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.03 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.99 | 0.99 | < 0.005 | < 0.005 | < 0.005 | 1.08 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.16 | 0.16 | < 0.005 | < 0.005 | < 0.005 | 0.18 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.19. Architectural Coating (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.11 | 0.81 | 1.12 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 24.8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.44 | 4.44 | < 0.005 | < 0.005 | — | 4.46 |
| Architectural Coatings | — | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.74 | 0.74 | < 0.005 | < 0.005 | — | 0.74 |
| Architectural Coatings | — | 0.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.31 | 0.30 | 0.07 | 0.94 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 31.3 | 31.3 | 0.02 | 0.01 | < 0.005 | 34.0 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.03 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.04 | 1.04 | < 0.005 | < 0.005 | < 0.005 | 1.13 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.17 | 0.17 | < 0.005 | < 0.005 | < 0.005 | 0.19 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.21. Architectural Coating (2029) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.79 | 1.11 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 24.8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.09 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.4 | 15.4 | < 0.005 | < 0.005 | — | 15.5 |
| Architectural Coatings | — | 2.86 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.55 | 2.55 | < 0.005 | < 0.005 | — | 2.56 |
| Architectural Coatings | — | 0.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.29 | 0.28 | 0.07 | 0.89 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 30.8 | 30.8 | 0.02 | 0.01 | < 0.005 | 33.4 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.01 | 0.10 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.55 | 3.55 | < 0.005 | < 0.005 | < 0.005 | 3.85 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.59 | 0.59 | < 0.005 | < 0.005 | < 0.005 | 0.64 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 4.09 | 3.75 | 2.52 | 27.4 | 0.07 | 0.05 | 2.44 | 2.49 | 0.05 | 0.43 | 0.48 | — | 7,031 | 7,031 | 0.31 | 0.26 | 19.3 | 7,137 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.43 | 0.40 | 0.27 | 2.90 | 0.01 | 0.01 | 0.26 | 0.26 | < 0.005 | 0.05 | 0.05 | — | 743 | 743 | 0.03 | 0.03 | 2.04 | 754 |
| Total | 4.52 | 4.15 | 2.79 | 30.3 | 0.08 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,774 | 7,774 | 0.35 | 0.29 | 21.3 | 7,891 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 4.02 | 3.68 | 2.77 | 25.8 | 0.07 | 0.05 | 2.44 | 2.49 | 0.05 | 0.43 | 0.48 | — | 6,720 | 6,720 | 0.33 | 0.28 | 0.50 | 6,811 |
| Apartments Low Rise | 0.43 | 0.39 | 0.29 | 2.73 | 0.01 | 0.01 | 0.26 | 0.26 | < 0.005 | 0.05 | 0.05 | — | 710 | 710 | 0.04 | 0.03 | 0.05 | 719 |
| Total | 4.45 | 4.07 | 3.06 | 28.6 | 0.07 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,429 | 7,429 | 0.37 | 0.31 | 0.55 | 7,531 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 0.71 | 0.65 | 0.49 | 4.61 | 0.01 | 0.01 | 0.44 | 0.44 | 0.01 | 0.08 | 0.09 | — | 1,095 | 1,095 | 0.05 | 0.04 | 1.35 | 1,111 |
| Apartments Low Rise | 0.07 | 0.06 | 0.05 | 0.45 | < 0.005 | < 0.005 | 0.04 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 106 | 106 | 0.01 | < 0.005 | 0.13 | 108 |
| Total | 0.78 | 0.71 | 0.53 | 5.05 | 0.01 | 0.01 | 0.48 | 0.49 | 0.01 | 0.08 | 0.09 | — | 1,201 | 1,201 | 0.06 | 0.05 | 1.48 | 1,219 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 75.9 | 75.9 | 0.06 | 0.01 | — | 79.3 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 5.18 | 5.18 | < 0.005 | < 0.005 | — | 5.41 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 81.1 | 81.1 | 0.06 | 0.01 | — | 84.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 75.9 | 75.9 | 0.06 | 0.01 | — | 79.3 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 5.18 | 5.18 | < 0.005 | < 0.005 | — | 5.41 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 81.1 | 81.1 | 0.06 | 0.01 | — | 84.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 12.6 | 12.6 | 0.01 | < 0.005 | — | 13.1 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartme Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 0.86 | 0.86 | < 0.005 | < 0.005 | — | 0.90 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 13.4 | 13.4 | 0.01 | < 0.005 | — | 14.0 |

## 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.08 | 0.04 | 0.72 | 0.31 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 914 | 914 | 0.08 | < 0.005 | — | 916 |
| Apartme nts Low Rise | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.2 | 52.2 | < 0.005 | < 0.005 | — | 52.3 |
| Total | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 966 | 966 | 0.09 | < 0.005 | — | 969 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.08 | 0.04 | 0.72 | 0.31 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 914 | 914 | 0.08 | < 0.005 | — | 916 |
| Apartme nts Low Rise | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.2 | 52.2 | < 0.005 | < 0.005 | — | 52.3 |
| Total | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 966 | 966 | 0.09 | < 0.005 | — | 969 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.02 | 0.01 | 0.13 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 151 | 151 | 0.01 | < 0.005 | — | 152 |
| Apartments Low Rise | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.64 | 8.64 | < 0.005 | < 0.005 | — | 8.66 |
| Total | 0.02 | 0.01 | 0.14 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 160 | 160 | 0.01 | < 0.005 | — | 160 |

## 4.3. Area Emissions by Source

### 4.3.2. Unmitigated

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

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 4.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.37 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.58 | 0.55 | 0.06 | 6.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 17.0 | 17.0 | < 0.005 | < 0.005 | — | 17.0 |
| Total | 0.58 | 5.38 | 0.06 | 6.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 17.0 | 17.0 | < 0.005 | < 0.005 | — | 17.0 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Consum Products | — | 4.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.37 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | 4.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 0.81 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.05 | 0.05 | 0.01 | 0.57 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.39 | 1.39 | < 0.005 | < 0.005 | — | 1.39 |
| Total | 0.05 | 0.93 | 0.01 | 0.57 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.39 | 1.39 | < 0.005 | < 0.005 | — | 1.39 |

## 4.4. Water Emissions by Land Use

### 4.4.2. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 6.73 | 17.0 | 23.7 | 0.70 | 0.02 | — | 46.6 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartme Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.81 | 0.35 | 1.16 | 0.08 | < 0.005 | — | 3.84 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 6.73 | 17.0 | 23.7 | 0.70 | 0.02 | — | 46.6 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.81 | 0.35 | 1.16 | 0.08 | < 0.005 | — | 3.84 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 1.11 | 2.81 | 3.93 | 0.12 | < 0.005 | — | 7.72 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.06 | 0.19 | 0.01 | < 0.005 | — | 0.64 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 1.25 | 2.87 | 4.12 | 0.13 | < 0.005 | — | 8.35 |

## 4.5. Waste Emissions by Land Use

### 4.5.2. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 35.6 | 0.00 | 35.6 | 3.56 | 0.00 | — | 125 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.71 | 0.00 | 4.71 | 0.47 | 0.00 | — | 16.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 35.6 | 0.00 | 35.6 | 3.56 | 0.00 | — | 125 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.71 | 0.00 | 4.71 | 0.47 | 0.00 | — | 16.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 5.90 | 0.00 | 5.90 | 0.59 | 0.00 | — | 20.6 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartme Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.78 | 0.00 | 0.78 | 0.08 | 0.00 | — | 2.73 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 6.68 | 0.00 | 6.68 | 0.67 | 0.00 | — | 23.4 |

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.40 | 1.40 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.40 | 1.40 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.23 | 0.23 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

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

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

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

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

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

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

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

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

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sequest | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Demolition | Demolition | 10/1/2024 | 11/30/2024 | 5.00 | 44.0 | — |
| Site Preparation | Site Preparation | 12/1/2024 | 1/1/2025 | 5.00 | 23.0 | — |
| Grading | Grading | 1/2/2025 | 2/1/2026 | 5.00 | 282 | — |
| Building Construction | Building Construction | 2/2/2026 | 9/1/2028 | 5.00 | 675 | — |
| Paving | Paving | 9/2/2028 | 12/15/2028 | 5.00 | 75.0 | — |
| Architectural Coating | Architectural Coating | 12/15/2028 | 2/28/2029 | 5.00 | 54.0 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site Preparation | Tractors/Loaders/Backh | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Demolition | — | — | — | — |
| Demolition | Worker | 16.0 | 0.19 | LDA,LDT1,LDT2 |
| Demolition | Vendor | 4.00 | 0.19 | HHDT,MHDT |
| Demolition | Hauling | 12.0 | 0.19 | HHDT |
| Demolition | Onsite truck | 0.00 | — | HHDT |
| Site Preparation | — | — | — | — |

| | | | | |
|---|---|---|---|---|
| Site Preparation | Worker | 18.0 | 0.19 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | 4.00 | 0.19 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 0.19 | HHDT |
| Site Preparation | Onsite truck | 0.00 | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 0.19 | LDA,LDT1,LDT2 |
| Grading | Vendor | 4.00 | 0.19 | HHDT,MHDT |
| Grading | Hauling | 8.00 | 0.19 | HHDT |
| Grading | Onsite truck | 0.00 | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 82.0 | 0.19 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 28.0 | 0.19 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 0.00 | HHDT |
| Building Construction | Onsite truck | 0.00 | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 16.0 | 0.19 | LDA,LDT1,LDT2 |
| Paving | Vendor | 0.00 | 0.19 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 0.00 | HHDT |
| Paving | Onsite truck | 0.00 | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 104 | 0.19 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 0.00 | 1.19 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 0.19 | HHDT |
| Architectural Coating | Onsite truck | 0.00 | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |

## 5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 420,633 | 140,211 | 0.00 | 0.00 | 8,128 |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (Cubic Yards) | Material Exported (Cubic Yards) | Acres Graded (acres) | Material Demolished (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Demolition | 0.00 | 0.00 | 0.00 | 1,974 | — |
| Site Preparation | 0.00 | 0.00 | 34.5 | 0.00 | — |
| Grading | 0.00 | 18,500 | 846 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 4.21 |

### 5.6.2. Construction Earthmoving Control Strategies

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

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Other Asphalt Surfaces | 3.11 | 100% |

| | | |
|---|---|---|
| Single Family Housing | 1.10 | 0% |
| Apartments Low Rise | — | 0% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2024 | 0.00 | 540 | 0.03 | < 0.005 |
| 2025 | 0.00 | 540 | 0.03 | < 0.005 |
| 2026 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2027 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2028 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2029 | 0.00 | 45.1 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 1,000 | 1,011 | 906 | 360,636 | 8,755 | 8,847 | 7,929 | 3,157,222 |
| Apartments Low Rise | 96.0 | 107 | 82.4 | 34,889 | 840 | 935 | 721 | 305,441 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 420633 | 140,211 | 0.00 | 0.00 | 8,128 |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

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

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 45.1 | 0.0330 | 0.0040 | 0.00 |
| Single Family Housing | 614,128 | 45.1 | 0.0330 | 0.0040 | 2,851,693 |
| Apartments Low Rise | 41,919 | 45.1 | 0.0330 | 0.0040 | 162,785 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 |
| Single Family Housing | 3,513,307 | 21,393,643 |

| | | |
|---|---|---|
| Apartments Low Rise | 421,597 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 |
| Single Family Housing | 23.7 | 0.00 |
| Apartments Low Rise | 3.18 | 0.00 |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Single Family Housing | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Single Family Housing | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |
| Apartments Low Rise | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Apartments Low Rise | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

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

# 5.16. Stationary Sources

## 5.16.1. Emergency Generators and Fire Pumps

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

## 5.16.2. Process Boilers

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

# 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|
| — | — |

# 5.18. Vegetation

## 5.18.1. Land Use Change

### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

## 5.18.1. Biomass Cover Type

### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

## 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

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

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

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

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 14.3 | annual days of extreme heat |
| Extreme Precipitation | 3.80 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 16.7 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |

| | | | | |
|---|---|---|---|---|
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

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

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

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

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 53.7 |
| AQ-PM | 42.9 |
| AQ-DPM | 11.5 |
| Drinking Water | 25.0 |
| Lead Risk Housing | 1.78 |
| Pesticides | 0.00 |
| Toxic Releases | 20.6 |
| Traffic | 30.5 |
| Effect Indicators | — |
| CleanUp Sites | 17.1 |
| Groundwater | 59.6 |
| Haz Waste Facilities/Generators | 10.2 |
| Impaired Water Bodies | 72.2 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 4.66 |
| Cardio-vascular | 10.2 |
| Low Birth Weights | 15.5 |
| Socioeconomic Factor Indicators | — |
| Education | 9.73 |
| Housing | 0.29 |
| Linguistic | 33.3 |
| Poverty | 1.19 |

| | |
|---|---|
| Unemployment | 32.3 |

## 7.2. Healthy Places Index Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 99.61503914 |
| Employed | 81.25240601 |
| Median HI | 94.39240344 |
| Education | — |
| Bachelor's or higher | 95.00834082 |
| High school enrollment | 100 |
| Preschool enrollment | 71.2049275 |
| Transportation | — |
| Auto Access | 86.34672142 |
| Active commuting | 26.02335429 |
| Social | — |
| 2-parent households | 89.45207237 |
| Voting | 93.37867317 |
| Neighborhood | — |
| Alcohol availability | 97.0101373 |
| Park access | 81.35506224 |
| Retail density | 21.53214423 |
| Supermarket access | 34.49249326 |
| Tree canopy | 54.09983318 |
| Housing | — |
| Homeownership | 92.00564609 |

| | |
|---|---|
| Housing habitability | 94.36673938 |
| Low-inc homeowner severe housing cost burden | 71.88502502 |
| Low-inc renter severe housing cost burden | 85.57679969 |
| Uncrowded housing | 75.52932119 |
| Health Outcomes | — |
| Insured adults | 93.18619274 |
| Arthritis | 93.0 |
| Asthma ER Admissions | 96.3 |
| High Blood Pressure | 94.9 |
| Cancer (excluding skin) | 55.0 |
| Asthma | 95.7 |
| Coronary Heart Disease | 96.5 |
| Chronic Obstructive Pulmonary Disease | 97.2 |
| Diagnosed Diabetes | 95.7 |
| Life Expectancy at Birth | 74.7 |
| Cognitively Disabled | 96.9 |
| Physically Disabled | 98.4 |
| Heart Attack ER Admissions | 89.0 |
| Mental Health Not Good | 94.2 |
| Chronic Kidney Disease | 95.6 |
| Obesity | 94.3 |
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 98.2 |
| Stroke | 97.8 |
| Health Risk Behaviors | — |
| Binge Drinking | 18.0 |
| Current Smoker | 94.5 |

| | |
|---|---|
| No Leisure Time for Physical Activity | 95.1 |
| Climate Change Exposures | — |
| Wildfire Risk | 95.2 |
| SLR Inundation Area | 0.0 |
| Children | 14.8 |
| Elderly | 85.6 |
| English Speaking | 60.5 |
| Foreign-born | 57.3 |
| Outdoor Workers | 88.1 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 68.6 |
| Traffic Density | 23.5 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 11.4 |
| Other Decision Support | — |
| 2016 Voting | 94.0 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 2.00 |
| Healthy Places Index Score for Project Location (b) | 96.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

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

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

### 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Construction: Construction Phases | Per applicant provided schedule. |
| Construction: Trips and VMT | Trips based on applicant provided information. 1,000 feet for onsite vehicle operation only for construction HRA analysis. |
| Operations: Vehicle Data | Based on project TIA. |
| Operations: Hearths | No wood burning hearths. |

# Appendix B
Health Risk Assessment

Construction HRA CalEEMod
Analysis

# Renzulli Estates Construction HRA Detailed Report

## Table of Contents

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
| --- | --- |
| Project Name | Renzulli Estates Construction HRA |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 20.4 |
| Location | 11495 Cypress Canyon Rd, San Diego, CA 92131, USA |
| County | San Diego |
| City | San Diego |
| Air District | San Diego County APCD |
| Air Basin | San Diego |
| TAZ | 6368 |
| EDFZ | 12 |
| Electric Utility | San Diego Gas & Electric |
| Gas Utility | San Diego Gas & Electric |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Other Asphalt Surfaces | 3.11 | Acre | 3.11 | 0.00 | 0.00 | 0.00 | — | — |
| Single Family Housing | 100 | Dwelling Unit | 32.5 | 195,000 | 1,171,286 | 0.00 | 279 | — |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 12.0 | Dwelling Unit | 0.75 | 12,720 | 0.00 | 0.00 | 33.0 | — |

## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

## 2.1. Construction Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.88 | 3.27 | 29.9 | 28.6 | 0.06 | 1.24 | 9.21 | 10.4 | 1.14 | 3.66 | 4.79 | — | 6,631 | 6,631 | 0.28 | 0.06 | 0.08 | 6,656 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.40 | 26.0 | 36.0 | 33.2 | 0.06 | 1.60 | 19.7 | 21.3 | 1.47 | 10.1 | 11.6 | — | 6,631 | 6,631 | 0.28 | 0.06 | < 0.005 | 6,656 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.77 | 2.90 | 21.3 | 20.5 | 0.04 | 0.88 | 6.60 | 7.48 | 0.81 | 2.62 | 3.44 | — | 4,734 | 4,734 | 0.20 | 0.04 | 0.02 | 4,752 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.51 | 0.53 | 3.89 | 3.73 | 0.01 | 0.16 | 1.20 | 1.37 | 0.15 | 0.48 | 0.63 | — | 784 | 784 | 0.03 | 0.01 | < 0.005 | 787 |

## 2.2. Construction Emissions by Year, Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.88 | 3.27 | 29.9 | 28.6 | 0.06 | 1.24 | 9.21 | 10.4 | 1.14 | 3.66 | 4.79 | — | 6,631 | 6,631 | 0.28 | 0.06 | 0.03 | 6,656 |
| 2026 | 1.56 | 1.34 | 10.2 | 13.8 | 0.02 | 0.38 | 0.02 | 0.39 | 0.35 | < 0.005 | 0.35 | — | 2,470 | 2,470 | 0.12 | 0.03 | 0.08 | 2,483 |
| 2027 | 1.51 | 1.29 | 9.74 | 13.8 | 0.02 | 0.34 | 0.02 | 0.35 | 0.31 | < 0.005 | 0.31 | — | 2,468 | 2,468 | 0.12 | 0.03 | 0.08 | 2,481 |
| 2028 | 1.45 | 1.24 | 9.26 | 13.7 | 0.02 | 0.30 | 0.02 | 0.32 | 0.28 | < 0.005 | 0.28 | — | 2,467 | 2,467 | 0.12 | 0.03 | 0.07 | 2,480 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 4.40 | 3.71 | 36.0 | 33.2 | 0.05 | 1.60 | 19.7 | 21.3 | 1.47 | 10.1 | 11.6 | — | 5,309 | 5,309 | 0.22 | 0.05 | < 0.005 | 5,328 |
| 2025 | 4.00 | 3.37 | 31.7 | 30.4 | 0.06 | 1.37 | 19.7 | 21.0 | 1.26 | 10.1 | 11.4 | — | 6,631 | 6,631 | 0.28 | 0.06 | < 0.005 | 6,656 |
| 2026 | 3.70 | 3.11 | 27.4 | 27.9 | 0.06 | 1.12 | 9.21 | 10.3 | 1.03 | 3.66 | 4.69 | — | 6,631 | 6,631 | 0.28 | 0.06 | < 0.005 | 6,655 |
| 2027 | 1.50 | 1.28 | 9.76 | 13.9 | 0.02 | 0.34 | 0.02 | 0.35 | 0.31 | < 0.005 | 0.31 | — | 2,469 | 2,469 | 0.12 | 0.03 | < 0.005 | 2,482 |
| 2028 | 1.45 | 26.0 | 9.28 | 13.9 | 0.02 | 0.30 | 0.02 | 0.32 | 0.28 | < 0.005 | 0.28 | — | 2,468 | 2,468 | 0.12 | 0.03 | < 0.005 | 2,480 |
| 2029 | 0.42 | 25.2 | 0.86 | 2.00 | < 0.005 | 0.01 | 0.01 | 0.03 | 0.01 | < 0.005 | 0.02 | — | 164 | 164 | 0.02 | 0.01 | < 0.005 | 167 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.65 | 0.55 | 5.22 | 4.67 | 0.01 | 0.22 | 1.27 | 1.49 | 0.21 | 0.62 | 0.83 | — | 740 | 740 | 0.03 | 0.01 | < 0.005 | 743 |
| 2025 | 2.77 | 2.33 | 21.3 | 20.5 | 0.04 | 0.88 | 6.60 | 7.48 | 0.81 | 2.62 | 3.44 | — | 4,734 | 4,734 | 0.20 | 0.04 | 0.01 | 4,752 |
| 2026 | 1.25 | 1.06 | 8.38 | 10.8 | 0.02 | 0.32 | 0.59 | 0.90 | 0.29 | 0.23 | 0.52 | — | 2,025 | 2,025 | 0.10 | 0.03 | 0.02 | 2,035 |
| 2027 | 1.07 | 0.91 | 6.96 | 9.92 | 0.02 | 0.24 | 0.01 | 0.25 | 0.22 | < 0.005 | 0.22 | — | 1,763 | 1,763 | 0.09 | 0.02 | 0.02 | 1,772 |
| 2028 | 0.88 | 1.60 | 5.84 | 8.76 | 0.01 | 0.20 | 0.01 | 0.21 | 0.18 | < 0.005 | 0.18 | — | 1,500 | 1,500 | 0.07 | 0.02 | 0.02 | 1,507 |
| 2029 | 0.05 | 2.90 | 0.10 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.0 | 19.0 | < 0.005 | < 0.005 | < 0.005 | 19.3 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.12 | 0.10 | 0.95 | 0.85 | < 0.005 | 0.04 | 0.23 | 0.27 | 0.04 | 0.11 | 0.15 | — | 123 | 123 | 0.01 | < 0.005 | < 0.005 | 123 |
| 2025 | 0.51 | 0.43 | 3.89 | 3.73 | 0.01 | 0.16 | 1.20 | 1.37 | 0.15 | 0.48 | 0.63 | — | 784 | 784 | 0.03 | 0.01 | < 0.005 | 787 |
| 2026 | 0.23 | 0.19 | 1.53 | 1.98 | < 0.005 | 0.06 | 0.11 | 0.16 | 0.05 | 0.04 | 0.10 | — | 335 | 335 | 0.02 | < 0.005 | < 0.005 | 337 |
| 2027 | 0.20 | 0.17 | 1.27 | 1.81 | < 0.005 | 0.04 | < 0.005 | 0.05 | 0.04 | < 0.005 | 0.04 | — | 292 | 292 | 0.01 | < 0.005 | < 0.005 | 293 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2028 | 0.16 | 0.29 | 1.07 | 1.60 | < 0.005 | 0.04 | < 0.005 | 0.04 | 0.03 | < 0.005 | 0.03 | — | 248 | 248 | 0.01 | < 0.005 | < 0.005 | 250 |
| 2029 | 0.01 | 0.53 | 0.02 | 0.04 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.14 | 3.14 | < 0.005 | < 0.005 | < 0.005 | 3.20 |

## 2.4. Operations Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.19 | 9.57 | 3.61 | 37.0 | 0.08 | 0.12 | 2.70 | 2.82 | 0.12 | 0.48 | 0.59 | 47.9 | 8,856 | 8,904 | 5.31 | 0.32 | 22.8 | 9,154 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.54 | 8.94 | 3.82 | 28.9 | 0.08 | 0.12 | 2.70 | 2.81 | 0.11 | 0.48 | 0.59 | 47.9 | 8,494 | 8,542 | 5.33 | 0.34 | 2.04 | 8,777 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.64 | 9.04 | 3.72 | 31.2 | 0.08 | 0.12 | 2.62 | 2.73 | 0.11 | 0.46 | 0.57 | 47.9 | 8,329 | 8,376 | 5.32 | 0.32 | 10.4 | 8,616 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.85 | 1.65 | 0.68 | 5.69 | 0.01 | 0.02 | 0.48 | 0.50 | 0.02 | 0.08 | 0.10 | 7.93 | 1,379 | 1,387 | 0.88 | 0.05 | 1.73 | 1,427 |

## 2.5. Operations Emissions by Sector, Unmitigated

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

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.52 | 4.15 | 2.79 | 30.3 | 0.08 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,774 | 7,774 | 0.35 | 0.29 | 21.3 | 7,891 |
| Area | 0.58 | 5.38 | 0.06 | 6.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 17.0 | 17.0 | < 0.005 | < 0.005 | — | 17.0 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 5.19 | 9.57 | 3.61 | 37.0 | 0.08 | 0.12 | 2.70 | 2.82 | 0.12 | 0.48 | 0.59 | 47.9 | 8,856 | 8,904 | 5.31 | 0.32 | 22.8 | 9,154 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.45 | 4.07 | 3.06 | 28.6 | 0.07 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,429 | 7,429 | 0.37 | 0.31 | 0.55 | 7,531 |
| Area | — | 4.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 4.54 | 8.94 | 3.82 | 28.9 | 0.08 | 0.12 | 2.70 | 2.81 | 0.11 | 0.48 | 0.59 | 47.9 | 8,494 | 8,542 | 5.33 | 0.34 | 2.04 | 8,777 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.26 | 3.90 | 2.93 | 27.7 | 0.07 | 0.05 | 2.62 | 2.67 | 0.05 | 0.46 | 0.51 | — | 7,256 | 7,256 | 0.35 | 0.30 | 8.94 | 7,361 |
| Area | 0.29 | 5.10 | 0.03 | 3.14 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.38 | 8.38 | < 0.005 | < 0.005 | — | 8.41 |
| Energy | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 1,047 | 1,047 | 0.14 | 0.01 | — | 1,053 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | 4.64 | 9.04 | 3.72 | 31.2 | 0.08 | 0.12 | 2.62 | 2.73 | 0.11 | 0.46 | 0.57 | 47.9 | 8,329 | 8,376 | 5.32 | 0.32 | 10.4 | 8,616 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.78 | 0.71 | 0.53 | 5.05 | 0.01 | 0.01 | 0.48 | 0.49 | 0.01 | 0.08 | 0.09 | — | 1,201 | 1,201 | 0.06 | 0.05 | 1.48 | 1,219 |
| Area | 0.05 | 0.93 | 0.01 | 0.57 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.39 | 1.39 | < 0.005 | < 0.005 | — | 1.39 |
| Energy | 0.02 | 0.01 | 0.14 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 173 | 173 | 0.02 | < 0.005 | — | 174 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 1.25 | 2.87 | 4.12 | 0.13 | < 0.005 | — | 8.35 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Waste | — | — | — | — | — | — | — | — | — | — | — | 6.68 | 0.00 | 6.68 | 0.67 | 0.00 | — | 23.4 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |
| Total | 0.85 | 1.65 | 0.68 | 5.69 | 0.01 | 0.02 | 0.48 | 0.50 | 0.02 | 0.08 | 0.10 | 7.93 | 1,379 | 1,387 | 0.88 | 0.05 | 1.73 | 1,427 |

# 3. Construction Emissions Details

## 3.1. Demolition (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.12 | 2.62 | 24.9 | 21.7 | 0.03 | 1.06 | — | 1.06 | 0.98 | — | 0.98 | — | 3,425 | 3,425 | 0.14 | 0.03 | — | 3,437 |
| Demolition | — | — | — | — | — | — | 0.62 | 0.62 | — | 0.09 | 0.09 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.38 | 0.32 | 3.00 | 2.62 | < 0.005 | 0.13 | — | 0.13 | 0.12 | — | 0.12 | — | 413 | 413 | 0.02 | < 0.005 | — | 414 |
| Demolition | — | — | — | — | — | — | 0.07 | 0.07 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.07 | 0.06 | 0.55 | 0.48 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 68.4 | 68.4 | < 0.005 | < 0.005 | — | 68.6 |
| Demolition | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.01 | 0.18 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 5.22 | 5.22 | < 0.005 | < 0.005 | < 0.005 | 5.76 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.92 | 6.92 | < 0.005 | < 0.005 | < 0.005 | 7.26 |
| Hauling | 0.01 | 0.01 | 0.20 | 0.13 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 29.5 | 29.5 | 0.01 | < 0.005 | < 0.005 | 31.0 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.63 | 0.63 | < 0.005 | < 0.005 | < 0.005 | 0.69 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.83 | 0.83 | < 0.005 | < 0.005 | < 0.005 | 0.87 |
| Hauling | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.53 | 3.53 | < 0.005 | < 0.005 | < 0.005 | 3.72 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | 0.11 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.14 | 0.14 | < 0.005 | < 0.005 | < 0.005 | 0.14 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.58 | 0.58 | < 0.005 | < 0.005 | < 0.005 | 0.62 |

## 3.3. Site Preparation (2024) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 4.34 | 3.65 | 36.0 | 32.9 | 0.05 | 1.60 | — | 1.60 | 1.47 | — | 1.47 | — | 5,296 | 5,296 | 0.21 | 0.04 | — | 5,314 |
| Dust From Material Movement | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.26 | 0.22 | 2.18 | 2.00 | < 0.005 | 0.10 | — | 0.10 | 0.09 | — | 0.09 | — | 321 | 321 | 0.01 | < 0.005 | — | 322 |
| Dust From Material Movement | — | — | — | — | — | — | 1.19 | 1.19 | — | 0.61 | 0.61 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.04 | 0.40 | 0.36 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 53.2 | 53.2 | < 0.005 | < 0.005 | — | 53.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.22 | 0.22 | — | 0.11 | 0.11 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.02 | 0.20 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 5.88 | 5.88 | < 0.005 | < 0.005 | < 0.005 | 6.47 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.92 | 6.92 | < 0.005 | < 0.005 | < 0.005 | 7.26 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.36 | 0.36 | < 0.005 | < 0.005 | < 0.005 | 0.39 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.42 | 0.42 | < 0.005 | < 0.005 | < 0.005 | 0.44 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.06 | 0.06 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.07 | 0.07 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5. Site Preparation (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.94 | 3.31 | 31.6 | 30.2 | 0.05 | 1.37 | — | 1.37 | 1.26 | — | 1.26 | — | 5,295 | 5,295 | 0.21 | 0.04 | — | 5,314 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.06 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.72 | 1.72 | < 0.005 | < 0.005 | — | 1.72 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.01 | 0.19 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 5.76 | 5.76 | < 0.005 | < 0.005 | < 0.005 | 6.35 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.82 | 6.82 | < 0.005 | < 0.005 | < 0.005 | 7.16 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 0.01 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 0.01 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.7. Grading (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.71 | 2.28 | 21.1 | 20.2 | 0.04 | 0.88 | — | 0.88 | 0.81 | — | 0.81 | — | 4,701 | 4,701 | 0.19 | 0.04 | — | 4,717 |
| Dust From Material Movement | — | — | — | — | — | — | 6.56 | 6.56 | — | 2.60 | 2.60 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.49 | 0.42 | 3.86 | 3.68 | 0.01 | 0.16 | — | 0.16 | 0.15 | — | 0.15 | — | 778 | 778 | 0.03 | 0.01 | — | 781 |
| Dust From Material Movement | — | — | — | — | — | — | 1.20 | 1.20 | — | 0.48 | 0.48 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.07 | 0.01 | 0.17 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 6.48 | 6.48 | < 0.005 | < 0.005 | 0.01 | 7.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.76 | 6.76 | < 0.005 | < 0.005 | 0.01 | 7.11 |
| Hauling | 0.01 | 0.01 | 0.13 | 0.09 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.1 | 19.1 | < 0.005 | < 0.005 | 0.01 | 20.2 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.07 | 0.06 | 0.02 | 0.21 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 6.40 | 6.40 | < 0.005 | < 0.005 | < 0.005 | 7.06 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.82 | 6.82 | < 0.005 | < 0.005 | < 0.005 | 7.16 |
| Hauling | 0.01 | < 0.005 | 0.13 | 0.09 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.3 | 19.3 | < 0.005 | < 0.005 | < 0.005 | 20.4 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.04 | 0.01 | 0.14 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.56 | 4.56 | < 0.005 | < 0.005 | < 0.005 | 5.02 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.83 | 4.83 | < 0.005 | < 0.005 | < 0.005 | 5.08 |
| Hauling | 0.01 | < 0.005 | 0.09 | 0.06 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | < 0.005 | 14.4 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.03 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.75 | 0.75 | < 0.005 | < 0.005 | < 0.005 | 0.83 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.80 | 0.80 | < 0.005 | < 0.005 | < 0.005 | 0.84 |
| Hauling | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.27 | 2.27 | < 0.005 | < 0.005 | < 0.005 | 2.39 |

## 3.9. Grading (2026) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.62 | 3.04 | 27.2 | 27.6 | 0.06 | 1.12 | — | 1.12 | 1.03 | — | 1.03 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,621 |
| Dust From Material Movement | — | — | — | — | — | — | 9.21 | 9.21 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.23 | 0.19 | 1.70 | 1.73 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 413 | 413 | 0.02 | < 0.005 | — | 415 |
| Dust From Material Movement | — | — | — | — | — | — | 0.58 | 0.58 | — | 0.23 | 0.23 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04 | 0.03 | 0.31 | 0.32 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 68.4 | 68.4 | < 0.005 | < 0.005 | — | 68.6 |
| Dust From Material Movement | — | — | — | — | — | — | 0.11 | 0.11 | — | 0.04 | 0.04 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.02 | 0.20 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 6.26 | 6.26 | < 0.005 | < 0.005 | < 0.005 | 6.92 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.71 | 6.71 | < 0.005 | < 0.005 | < 0.005 | 7.05 |
| Hauling | 0.01 | < 0.005 | 0.13 | 0.09 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 19.0 | 19.0 | < 0.005 | < 0.005 | < 0.005 | 20.0 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.39 | 0.39 | < 0.005 | < 0.005 | < 0.005 | 0.43 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.42 | 0.42 | < 0.005 | < 0.005 | < 0.005 | 0.44 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.18 | 1.18 | < 0.005 | < 0.005 | < 0.005 | 1.25 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.06 | 0.06 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.07 | 0.07 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.20 | 0.20 | < 0.005 | < 0.005 | < 0.005 | 0.21 |

## 3.11. Building Construction (2026) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.83 | 0.70 | 6.42 | 8.45 | 0.02 | 0.25 | — | 0.25 | 0.23 | — | 0.23 | — | 1,562 | 1,562 | 0.06 | 0.01 | — | 1,568 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.15 | 0.13 | 1.17 | 1.54 | < 0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 259 | 259 | 0.01 | < 0.005 | — | 260 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.26 | 0.25 | 0.06 | 0.65 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 26.0 | 26.0 | 0.01 | 0.01 | 0.04 | 28.1 |
| Vendor | 0.02 | 0.01 | 0.30 | 0.21 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 46.6 | 46.6 | 0.01 | 0.01 | 0.04 | 49.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.26 | 0.25 | 0.06 | 0.83 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.7 | 25.7 | 0.02 | 0.01 | < 0.005 | 28.4 |
| Vendor | 0.02 | 0.01 | 0.31 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 47.0 | 47.0 | 0.01 | 0.01 | < 0.005 | 49.4 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.17 | 0.16 | 0.04 | 0.50 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 16.7 | 16.7 | 0.01 | < 0.005 | 0.01 | 18.5 |
| Vendor | 0.01 | 0.01 | 0.20 | 0.14 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 30.5 | 30.5 | 0.01 | < 0.005 | 0.01 | 32.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.01 | 0.09 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.77 | 2.77 | < 0.005 | < 0.005 | < 0.005 | 3.06 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.04 | 5.04 | < 0.005 | < 0.005 | < 0.005 | 5.30 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.13. Building Construction (2027) - Unmitigated

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

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

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.88 | 0.74 | 6.71 | 9.24 | 0.02 | 0.24 | — | 0.24 | 0.22 | — | 0.22 | — | 1,712 | 1,712 | 0.07 | 0.01 | — | 1,718 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.16 | 0.13 | 1.22 | 1.69 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 283 | 283 | 0.01 | < 0.005 | — | 284 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.25 | 0.25 | 0.05 | 0.61 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.5 | 25.5 | 0.01 | 0.01 | 0.04 | 27.6 |
| Vendor | 0.02 | 0.01 | 0.29 | 0.21 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.8 | 45.8 | 0.01 | 0.01 | 0.04 | 48.1 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.25 | 0.24 | 0.06 | 0.78 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.2 | 25.2 | 0.02 | 0.01 | < 0.005 | 27.9 |
| Vendor | 0.02 | 0.01 | 0.31 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 46.2 | 46.2 | 0.01 | 0.01 | < 0.005 | 48.6 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.18 | 0.17 | 0.04 | 0.52 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 18.0 | 18.0 | 0.01 | < 0.005 | 0.01 | 19.5 |
| Vendor | 0.02 | 0.01 | 0.21 | 0.15 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 32.8 | 32.8 | 0.01 | 0.01 | 0.01 | 34.5 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.01 | 0.10 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.98 | 2.98 | < 0.005 | < 0.005 | < 0.005 | 3.23 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.44 | 5.44 | < 0.005 | < 0.005 | < 0.005 | 5.71 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.15. Building Construction (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.18 | 0.99 | 8.92 | 12.9 | 0.02 | 0.30 | — | 0.30 | 0.28 | — | 0.28 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 1.18 | 0.99 | 8.92 | 12.9 | 0.02 | 0.30 | — | 0.30 | 0.28 | — | 0.28 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.57 | 0.48 | 4.28 | 6.20 | 0.01 | 0.14 | — | 0.14 | 0.13 | — | 0.13 | — | 1,149 | 1,149 | 0.05 | 0.01 | — | 1,153 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.10 | 0.09 | 0.78 | 1.13 | < 0.005 | 0.03 | — | 0.03 | 0.02 | — | 0.02 | — | 190 | 190 | 0.01 | < 0.005 | — | 191 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.24 | 0.24 | 0.05 | 0.58 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 25.1 | 25.1 | 0.01 | 0.01 | 0.03 | 27.1 |
| Vendor | 0.02 | 0.01 | 0.29 | 0.21 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.0 | 45.0 | 0.01 | 0.01 | 0.03 | 47.3 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.24 | 0.23 | 0.06 | 0.74 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 24.7 | 24.7 | 0.01 | 0.01 | < 0.005 | 26.8 |
| Vendor | 0.02 | 0.01 | 0.30 | 0.22 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.4 | 45.4 | 0.01 | 0.01 | < 0.005 | 47.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.11 | 0.03 | 0.33 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 11.9 | 11.9 | 0.01 | < 0.005 | 0.01 | 12.9 |
| Vendor | 0.01 | 0.01 | 0.14 | 0.10 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 21.7 | 21.7 | < 0.005 | < 0.005 | 0.01 | 22.8 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | < 0.005 | 0.06 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.96 | 1.96 | < 0.005 | < 0.005 | < 0.005 | 2.13 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.58 | 3.58 | < 0.005 | < 0.005 | < 0.005 | 3.77 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.17. Paving (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.82 | 0.69 | 6.63 | 9.91 | 0.01 | 0.26 | — | 0.26 | 0.24 | — | 0.24 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.82 | 0.69 | 6.63 | 9.91 | 0.01 | 0.26 | — | 0.26 | 0.24 | — | 0.24 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.17 | 0.14 | 1.36 | 2.04 | < 0.005 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 310 | 310 | 0.01 | < 0.005 | — | 312 |
| Paving | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.25 | 0.37 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 51.4 | 51.4 | < 0.005 | < 0.005 | — | 51.6 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.01 | 0.11 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.89 | 4.89 | < 0.005 | < 0.005 | 0.01 | 5.29 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.01 | 0.14 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.82 | 4.82 | < 0.005 | < 0.005 | < 0.005 | 5.23 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.03 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.99 | 0.99 | < 0.005 | < 0.005 | < 0.005 | 1.08 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.16 | 0.16 | < 0.005 | < 0.005 | < 0.005 | 0.18 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.19. Architectural Coating (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.11 | 0.81 | 1.12 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 24.8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.44 | 4.44 | < 0.005 | < 0.005 | — | 4.46 |
| Architectural Coatings | — | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.74 | 0.74 | < 0.005 | < 0.005 | — | 0.74 |
| Architectural Coatings | — | 0.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.31 | 0.30 | 0.07 | 0.94 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 31.3 | 31.3 | 0.02 | 0.01 | < 0.005 | 34.0 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.03 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.04 | 1.04 | < 0.005 | < 0.005 | < 0.005 | 1.13 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.17 | 0.17 | < 0.005 | < 0.005 | < 0.005 | 0.19 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.21. Architectural Coating (2029) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.79 | 1.11 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 24.8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.09 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.4 | 15.4 | < 0.005 | < 0.005 | — | 15.5 |
| Architectural Coatings | — | 2.86 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.55 | 2.55 | < 0.005 | < 0.005 | — | 2.56 |
| Architectural Coatings | — | 0.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.29 | 0.28 | 0.07 | 0.89 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 30.8 | 30.8 | 0.02 | 0.01 | < 0.005 | 33.4 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.01 | 0.10 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.55 | 3.55 | < 0.005 | < 0.005 | < 0.005 | 3.85 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.59 | 0.59 | < 0.005 | < 0.005 | < 0.005 | 0.64 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 4.09 | 3.75 | 2.52 | 27.4 | 0.07 | 0.05 | 2.44 | 2.49 | 0.05 | 0.43 | 0.48 | — | 7,031 | 7,031 | 0.31 | 0.26 | 19.3 | 7,137 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.43 | 0.40 | 0.27 | 2.90 | 0.01 | 0.01 | 0.26 | 0.26 | < 0.005 | 0.05 | 0.05 | — | 743 | 743 | 0.03 | 0.03 | 2.04 | 754 |
| Total | 4.52 | 4.15 | 2.79 | 30.3 | 0.08 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,774 | 7,774 | 0.35 | 0.29 | 21.3 | 7,891 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 4.02 | 3.68 | 2.77 | 25.8 | 0.07 | 0.05 | 2.44 | 2.49 | 0.05 | 0.43 | 0.48 | — | 6,720 | 6,720 | 0.33 | 0.28 | 0.50 | 6,811 |
| Apartments Low Rise | 0.43 | 0.39 | 0.29 | 2.73 | 0.01 | 0.01 | 0.26 | 0.26 | < 0.005 | 0.05 | 0.05 | — | 710 | 710 | 0.04 | 0.03 | 0.05 | 719 |
| Total | 4.45 | 4.07 | 3.06 | 28.6 | 0.07 | 0.06 | 2.70 | 2.75 | 0.05 | 0.48 | 0.53 | — | 7,429 | 7,429 | 0.37 | 0.31 | 0.55 | 7,531 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 0.71 | 0.65 | 0.49 | 4.61 | 0.01 | 0.01 | 0.44 | 0.44 | 0.01 | 0.08 | 0.09 | — | 1,095 | 1,095 | 0.05 | 0.04 | 1.35 | 1,111 |
| Apartments Low Rise | 0.07 | 0.06 | 0.05 | 0.45 | < 0.005 | < 0.005 | 0.04 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 106 | 106 | 0.01 | < 0.005 | 0.13 | 108 |
| Total | 0.78 | 0.71 | 0.53 | 5.05 | 0.01 | 0.01 | 0.48 | 0.49 | 0.01 | 0.08 | 0.09 | — | 1,201 | 1,201 | 0.06 | 0.05 | 1.48 | 1,219 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 75.9 | 75.9 | 0.06 | 0.01 | — | 79.3 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 5.18 | 5.18 | < 0.005 | < 0.005 | — | 5.41 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 81.1 | 81.1 | 0.06 | 0.01 | — | 84.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 75.9 | 75.9 | 0.06 | 0.01 | — | 79.3 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 5.18 | 5.18 | < 0.005 | < 0.005 | — | 5.41 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 81.1 | 81.1 | 0.06 | 0.01 | — | 84.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 12.6 | 12.6 | 0.01 | < 0.005 | — | 13.1 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartme Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 0.86 | 0.86 | < 0.005 | < 0.005 | — | 0.90 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 13.4 | 13.4 | 0.01 | < 0.005 | — | 14.0 |

### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.08 | 0.04 | 0.72 | 0.31 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 914 | 914 | 0.08 | < 0.005 | — | 916 |
| Apartme nts Low Rise | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.2 | 52.2 | < 0.005 | < 0.005 | — | 52.3 |
| Total | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 966 | 966 | 0.09 | < 0.005 | — | 969 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.08 | 0.04 | 0.72 | 0.31 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 914 | 914 | 0.08 | < 0.005 | — | 916 |
| Apartme nts Low Rise | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.2 | 52.2 | < 0.005 | < 0.005 | — | 52.3 |
| Total | 0.09 | 0.04 | 0.76 | 0.32 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 966 | 966 | 0.09 | < 0.005 | — | 969 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | 0.02 | 0.01 | 0.13 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 151 | 151 | 0.01 | < 0.005 | — | 152 |
| Apartments Low Rise | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.64 | 8.64 | < 0.005 | < 0.005 | — | 8.66 |
| Total | 0.02 | 0.01 | 0.14 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 160 | 160 | 0.01 | < 0.005 | — | 160 |

## 4.3. Area Emissions by Source

### 4.3.2. Unmitigated

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

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 4.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.37 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.58 | 0.55 | 0.06 | 6.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 17.0 | 17.0 | < 0.005 | < 0.005 | — | 17.0 |
| Total | 0.58 | 5.38 | 0.06 | 6.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 17.0 | 17.0 | < 0.005 | < 0.005 | — | 17.0 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Consum Products | — | 4.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.37 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | 4.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 0.81 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.05 | 0.05 | 0.01 | 0.57 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.39 | 1.39 | < 0.005 | < 0.005 | — | 1.39 |
| Total | 0.05 | 0.93 | 0.01 | 0.57 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.39 | 1.39 | < 0.005 | < 0.005 | — | 1.39 |

## 4.4. Water Emissions by Land Use

### 4.4.2. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 6.73 | 17.0 | 23.7 | 0.70 | 0.02 | — | 46.6 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartme Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.81 | 0.35 | 1.16 | 0.08 | < 0.005 | — | 3.84 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 6.73 | 17.0 | 23.7 | 0.70 | 0.02 | — | 46.6 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.81 | 0.35 | 1.16 | 0.08 | < 0.005 | — | 3.84 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 17.3 | 24.9 | 0.79 | 0.02 | — | 50.5 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 1.11 | 2.81 | 3.93 | 0.12 | < 0.005 | — | 7.72 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.06 | 0.19 | 0.01 | < 0.005 | — | 0.64 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 1.25 | 2.87 | 4.12 | 0.13 | < 0.005 | — | 8.35 |

## 4.5. Waste Emissions by Land Use

### 4.5.2. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 35.6 | 0.00 | 35.6 | 3.56 | 0.00 | — | 125 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.71 | 0.00 | 4.71 | 0.47 | 0.00 | — | 16.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 35.6 | 0.00 | 35.6 | 3.56 | 0.00 | — | 125 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.71 | 0.00 | 4.71 | 0.47 | 0.00 | — | 16.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 40.4 | 0.00 | 40.4 | 4.03 | 0.00 | — | 141 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 5.90 | 0.00 | 5.90 | 0.59 | 0.00 | — | 20.6 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartme Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.78 | 0.00 | 0.78 | 0.08 | 0.00 | — | 2.73 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 6.68 | 0.00 | 6.68 | 0.67 | 0.00 | — | 23.4 |

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

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

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.40 | 1.40 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.40 | 1.40 |
| Apartme nts Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.23 | 0.23 |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

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

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

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

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

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

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

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

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

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sequest | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Demolition | Demolition | 10/1/2024 | 11/30/2024 | 5.00 | 44.0 | — |
| Site Preparation | Site Preparation | 12/1/2024 | 1/1/2025 | 5.00 | 23.0 | — |
| Grading | Grading | 1/2/2025 | 2/1/2026 | 5.00 | 282 | — |
| Building Construction | Building Construction | 2/2/2026 | 9/1/2028 | 5.00 | 675 | — |
| Paving | Paving | 9/2/2028 | 12/15/2028 | 5.00 | 75.0 | — |
| Architectural Coating | Architectural Coating | 12/15/2028 | 2/28/2029 | 5.00 | 54.0 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site Preparation | Tractors/Loaders/Backh | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Demolition | — | — | — | — |
| Demolition | Worker | 16.0 | 0.19 | LDA,LDT1,LDT2 |
| Demolition | Vendor | 4.00 | 0.19 | HHDT,MHDT |
| Demolition | Hauling | 12.0 | 0.19 | HHDT |
| Demolition | Onsite truck | 0.00 | — | HHDT |
| Site Preparation | — | — | — | — |

| | | | | |
|---|---|---|---|---|
| Site Preparation | Worker | 18.0 | 0.19 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | 4.00 | 0.19 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 0.19 | HHDT |
| Site Preparation | Onsite truck | 0.00 | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 0.19 | LDA,LDT1,LDT2 |
| Grading | Vendor | 4.00 | 0.19 | HHDT,MHDT |
| Grading | Hauling | 8.00 | 0.19 | HHDT |
| Grading | Onsite truck | 0.00 | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 82.0 | 0.19 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 28.0 | 0.19 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 0.00 | HHDT |
| Building Construction | Onsite truck | 0.00 | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 16.0 | 0.19 | LDA,LDT1,LDT2 |
| Paving | Vendor | 0.00 | 0.19 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 0.00 | HHDT |
| Paving | Onsite truck | 0.00 | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 104 | 0.19 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 0.00 | 1.19 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 0.19 | HHDT |
| Architectural Coating | Onsite truck | 0.00 | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |

## 5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 420,633 | 140,211 | 0.00 | 0.00 | 8,128 |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (Cubic Yards) | Material Exported (Cubic Yards) | Acres Graded (acres) | Material Demolished (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Demolition | 0.00 | 0.00 | 0.00 | 1,974 | — |
| Site Preparation | 0.00 | 0.00 | 34.5 | 0.00 | — |
| Grading | 0.00 | 18,500 | 846 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 4.21 |

### 5.6.2. Construction Earthmoving Control Strategies

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

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Other Asphalt Surfaces | 3.11 | 100% |

| | | |
|---|---|---|
| Single Family Housing | 1.10 | 0% |
| Apartments Low Rise | — | 0% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2024 | 0.00 | 540 | 0.03 | < 0.005 |
| 2025 | 0.00 | 540 | 0.03 | < 0.005 |
| 2026 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2027 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2028 | 0.00 | 45.1 | 0.03 | < 0.005 |
| 2029 | 0.00 | 45.1 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Single Family Housing | 1,000 | 1,011 | 906 | 360,636 | 8,755 | 8,847 | 7,929 | 3,157,222 |
| Apartments Low Rise | 96.0 | 107 | 82.4 | 34,889 | 840 | 935 | 721 | 305,441 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 420633 | 140,211 | 0.00 | 0.00 | 8,128 |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

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

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Other Asphalt Surfaces | 0.00 | 45.1 | 0.0330 | 0.0040 | 0.00 |
| Single Family Housing | 614,128 | 45.1 | 0.0330 | 0.0040 | 2,851,693 |
| Apartments Low Rise | 41,919 | 45.1 | 0.0330 | 0.0040 | 162,785 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 |
| Single Family Housing | 3,513,307 | 21,393,643 |

| | | |
|---|---|---|
| Apartments Low Rise | 421,597 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Other Asphalt Surfaces | 0.00 | 0.00 |
| Single Family Housing | 23.7 | 0.00 |
| Apartments Low Rise | 3.18 | 0.00 |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Single Family Housing | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Single Family Housing | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |
| Apartments Low Rise | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Apartments Low Rise | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

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

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

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

### 5.16.2. Process Boilers

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

## 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|
| — | — |

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

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

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

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

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 14.3 | annual days of extreme heat |
| Extreme Precipitation | 3.80 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 16.7 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |

| | | | | |
|---|---|---|---|---|
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

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

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

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

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 53.7 |
| AQ-PM | 42.9 |
| AQ-DPM | 11.5 |
| Drinking Water | 25.0 |
| Lead Risk Housing | 1.78 |
| Pesticides | 0.00 |
| Toxic Releases | 20.6 |
| Traffic | 30.5 |
| Effect Indicators | — |
| CleanUp Sites | 17.1 |
| Groundwater | 59.6 |
| Haz Waste Facilities/Generators | 10.2 |
| Impaired Water Bodies | 72.2 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 4.66 |
| Cardio-vascular | 10.2 |
| Low Birth Weights | 15.5 |
| Socioeconomic Factor Indicators | — |
| Education | 9.73 |
| Housing | 0.29 |
| Linguistic | 33.3 |
| Poverty | 1.19 |

| | |
|---|---|
| Unemployment | 32.3 |

## 7.2. Healthy Places Index Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 99.61503914 |
| Employed | 81.25240601 |
| Median HI | 94.39240344 |
| Education | — |
| Bachelor's or higher | 95.00834082 |
| High school enrollment | 100 |
| Preschool enrollment | 71.2049275 |
| Transportation | — |
| Auto Access | 86.34672142 |
| Active commuting | 26.02335429 |
| Social | — |
| 2-parent households | 89.45207237 |
| Voting | 93.37867317 |
| Neighborhood | — |
| Alcohol availability | 97.0101373 |
| Park access | 81.35506224 |
| Retail density | 21.53214423 |
| Supermarket access | 34.49249326 |
| Tree canopy | 54.09983318 |
| Housing | — |
| Homeownership | 92.00564609 |

| | |
|---|---|
| Housing habitability | 94.36673938 |
| Low-inc homeowner severe housing cost burden | 71.88502502 |
| Low-inc renter severe housing cost burden | 85.57679969 |
| Uncrowded housing | 75.52932119 |
| Health Outcomes | — |
| Insured adults | 93.18619274 |
| Arthritis | 93.0 |
| Asthma ER Admissions | 96.3 |
| High Blood Pressure | 94.9 |
| Cancer (excluding skin) | 55.0 |
| Asthma | 95.7 |
| Coronary Heart Disease | 96.5 |
| Chronic Obstructive Pulmonary Disease | 97.2 |
| Diagnosed Diabetes | 95.7 |
| Life Expectancy at Birth | 74.7 |
| Cognitively Disabled | 96.9 |
| Physically  Disabled | 98.4 |
| Heart Attack ER Admissions | 89.0 |
| Mental Health Not Good | 94.2 |
| Chronic Kidney Disease | 95.6 |
| Obesity | 94.3 |
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 98.2 |
| Stroke | 97.8 |
| Health Risk Behaviors | — |
| Binge Drinking | 18.0 |
| Current Smoker | 94.5 |

| | |
|---|---|
| No Leisure Time for Physical Activity | 95.1 |
| Climate Change Exposures | — |
| Wildfire Risk | 95.2 |
| SLR Inundation Area | 0.0 |
| Children | 14.8 |
| Elderly | 85.6 |
| English Speaking | 60.5 |
| Foreign-born | 57.3 |
| Outdoor Workers | 88.1 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 68.6 |
| Traffic Density | 23.5 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 11.4 |
| Other Decision Support | — |
| 2016 Voting | 94.0 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 2.00 |
| Healthy Places Index Score for Project Location (b) | 96.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

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

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

### 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

| Screen | Justification |
| --- | --- |
| Construction: Construction Phases | Per applicant provided schedule. |
| Construction: Trips and VMT | Trips based on applicant provided information. 1,000 feet for onsite vehicle operation only for construction HRA analysis. |
| Operations: Vehicle Data | Based on project TIA. |
| Operations: Hearths | No wood burning hearths. |