Appendix B Air Quality and Greenhouse Gas Modeling

Appendices

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Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

Climate/Meteorology

SAN DIEGO AIR BASIN

The San Diego Air Basin (SDAB) includes the entire County of San Diego. Emissions sources within the SDAB are primarily in the western region and dispersion of air pollutants is highly affected by the region's climate and geography. The climate in the project area is dominated by the strength and position of the semi-permanent high-pressure center over the Pacific Ocean near Hawaii. This high-pressure center creates cool summers, mild winters, and infrequent rainfall, and drives the cool, daytime breezes, maintaining a comfortable level of humidity and ample sunshine.

Inversions

The influence of this semi-permanent high-pressure system results in strong high-altitude temperature inversions associated with warm descending air. The subsidence inversions within the SDAB generally occur during the warmer months (May through October) as descending air from the Pacific high-pressure cell comes into contact with cool marine air. Within the SDAB, the inversion layer is approximately 2,000 feet (610 meters) above mean sea level (msl) between May and October. During the winter months (November through April), the temperature inversion rises to approximately 3,000 feet (914 meters) above msl. Inversion layers are important elements of local air quality because they inhibit the dispersion of pollutants, resulting in a temporary degradation of air quality. On days without inversions or on days of winds averaging over 15 mph, smog potential is greatly reduced in the SDAB.

Temperature and Precipitation

The annual average temperature varies little throughout the 4,225 square-mile basin. The overall climate is Mediterranean, with average temperatures reaching 92˚F in the summer and 38˚F in the winter. High temperatures are often accompanied by very low relative humidity (often less than 20 percent). The Western Regional Climate Center maintains historical climate information for the western US. The climatological station nearest to the project site with temperature data is the Vista 2 NNE, California Monitoring Station (ID No. 047813). The lowest average temperature is reported at 44.0°F in December, and the highest average temperature is 83.0°F in August (WRCC 2025).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. The total average annual precipitation is 13.09 inches as measured by the Western Regional Climate Center, and the majority of precipitation occurs between October and April (WRCC 2025).

Wind

Wind patterns across the south coastal region are characterized by westerly onshore winds during the day and occasional easterly breezes at night as a result of cold air drainage. Wind speed is somewhat greater during the dry summer months than during the rainy winter season. The onshore light-to-moderate winds at San Diego Lindbergh Field average 6.6 knots. The offshore flow is less persistent in the winter when occasional hot, dry Santa Ana winds blow from the east with great force (SDAPCD 2009).

Air Quality Regulations

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SDAB and is subject to the rules and regulations imposed by the San Diego Air Pollution Control District (SDAPCD). However, SDAPCD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 1, *Ambient Air Quality Standards for Criteria Air Pollutants*, these pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter

(PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4]	Annual Arithmetic Mean	12 $\mu g/m^3$	9 $\mu g/m^3$	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 $\mu g/m^3$	
Lead (Pb)	30-Day Average	1.5 $\mu g/m^3$	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 $\mu g/m^3$	
	Rolling 3-Month Average	*	0.15 $\mu g/m^3$	
Sulfates (SO_4)[5]	24 hours	25 $\mu g/m^3$	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2024; US EPA 2024a.
Notes: ppm: parts per million; µg/m³: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and 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.
2 National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a 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 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
4 On February 7, 2024, the national annual $PM_{2.5}$ primary standard was lowered from 12.0 $\mu g/m^3$ to 9.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
5 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005; USEPA 2025a). The SDAB is designated under the California AAQS as being in attainment and under the National AAQS as being in unclassified/attainment of CO criteria levels (SDAPCD 2025).

Nitrogen Oxides (NO_x) are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including people with asthma, children, and the elderly. Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between breathing elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (South Coast AQMD 2005; USEPA 2025a). The SDAB is designated as an attainment area for NO_2 under both the National and California AAQS (SDAPCD 2025).

Ozone (O_3) is commonly referred to as "smog;" it is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (South Coast AQMD 2005; USEPA 2025a). The SDAB is designated as nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (SDAPCD 2025).

Sulfur Dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2 (South Coast AQMD 2005; USEPA 2025a). When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. The SDAB is designated as attainment under the California and National AAQS (SDAPCD 2025).

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (South Coast AQMD 2005).

The US Environmental Protection Agency's (EPA) scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms (South Coast AQMD 2005). There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2022). However, the EPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is classified by the CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,[1] environmental damage,[2] and aesthetic damage[3] (South Coast AQMD 2005; USEPA 2025a). The SDAB is designated under the California AAQS as a nonattainment area for PM_{10} and $PM_{2.5}$ (SDAPCD 2025).

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources

1 $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.
2 Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.
3 Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of ozone (O_3), the County of San Diego uses the South Coast AQMD threshold of 75 pounds per day as its significance threshold (San Diego 2007).

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; USEPA 2025a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Lead emissions have steadily declined due to catalytic converters and increased use of lead-free gasoline. San Diego is no longer required to monitor for lead (San Diego 2007). Because emissions of lead are found only in projects that are permitted by SDAPCD, lead is not a pollutant of concern for the project.

TOXIC AIR CONTAMINANTS

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Air Quality Management Planning

To ensure continued progress toward clean air and to comply with state and federal requirements, the San Diego Air Pollution Control District (SDAPCD) prepared a revision to the San Diego Regional Air Quality Strategy (2022 RAQS) (SDAPCD 2022). As required by state law, the 2022 RAQS incorporates the most up-to-date emission control aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. The 2022 RAQS focuses on protecting public health and protecting the climate, and complements actions addressing GHGs and climate change. Measures proposed in the 2022 RAQS aim to reduce precursors of ozone, such as VOC and NO_x, and indirectly reduce PM and GHGs. Additionally, the 2022 RAQS include a long-range vision of a carbon neutral economy and its function in San Diego County, in order to demonstrate efforts further reducing GHGs, as indirect reductions will aid other regional efforts to achieve a countywide goal of carbon neutrality by 2045, and statewide GHG reduction and climate targets by 2050.

The SDAB adopted its first RAQS in 1992 and it has undergone seven revisions since. The amended and new rules considered in the current 2022 Revision of the RAQS are estimated to reduce NO_x by approximately 0.59 tons per day and VOC by approximately 0.04 tons per day. The 2022 RAQS provides additional reductions of O_3 precursor emissions relative to the 2016 RAQS and, therefore, is more effective in improving air quality.

The SDAPCD also is required to submit separate attainment plans to demonstrate to the United States Environmental Protection Agency (EPA) how the SDAB will achieve compliance with the federal CAA for nonattainment designations. These plans include:

- 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County
- 2020 RACT Demonstration for the National Ambient Air Quality Standards for Ozone in San Diego County
- 2020 Attainment Plan – 8-Hour Ozone (2008 Standard)
- 2012 Maintenance Plan – 8-Hour Ozone (1997 Standard)
- 2007 Attainment Plan – 8-Hour Ozone (1997 Standard)
- 2005 Wildfire Natural Events Action Plan
- 2002 Maintenance Plan – 1-Hour Ozone (1979 Standard)

AREA DESIGNATIONS

The RAQS provides the framework for the SDAB to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Severity classifications for ozone nonattainment are marginal, moderate, serious, severe, and extreme. The following are descriptions of the attainment classifications and the attainment status for the SDAB is included in Table 2, *Attainment Status of Criteria Pollutants in the San Diego Air Basin*:

- Unclassified: a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- Attainment: a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.
- Nonattainment: a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.
- Nonattainment/Transitional: a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SDAB is shown in Table 2.

Table 2 Attainment Status of Criteria Pollutants in the San Diego Air Basin

Pollutant	State	Federal
Ozone – 8-hour	Nonattainment	Nonattainment
Ozone – 1-hour	Nonattainment	Attainment/Revoked[2]
CO	Attainment	Attainment
PM_{10}	Nonattainment	Unclassifiable[3]
$PM_{2.5}$[1]	Nonattainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
All others	Attainment/Unclassified	No Federal Standard

Source: SDAPCD 2025.
1 The SDAB is designated as nonattainment for fine particulate matter due to the 8-hour ozone nonattainment designation. $PM_{2.5}$ is precursor to ozone formation.
2 The federal 1-hour standard of 12 parts per hundred million (pphm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.
3 At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the proposed project site, are best documented by measurements taken by the SDAPCD. The SDAPCD air quality monitoring station closest to the project site is the San Diego-Kearny Villa Road Monitoring Station, which monitors O_3, NO_2, and $PM_{2.5}$. Data for PM_{10} is supplemented from the El Cajon-Lexington Elementary School Monitoring Station. The most current five years of data monitored at these monitoring stations are included in Table 3, *Ambient Air Quality Monitoring Summary*. The data show recurring violations of state 1- and 8-hour and federal 8-hour standards as well as occasional violations of the federal $PM_{2.5}$ standards in the last five years.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations[1]				
	2019	2020	2021	2022	2023
Ozone (O_3)[2]					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	0	2	1	1	0
State & Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	1	10	1	2	3
Max. 1-Hour Conc. (ppm)	0.083	0.123	0.095	0.095	0.091
Max. 8-Hour Conc. (ppm)	0.075	0.102	0.071	0.083	0.79
Nitrogen Dioxide (NO_2)[2]					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.046	0.052	0.060	0.051	0.038
Coarse Particulates (PM_{10})[3]					
State 24-Hour > 50 µg/m^3 (days exceed threshold)	0	*	*	*	*
Federal 24-Hour > 150 µg/m^3 (days exceed threshold)	0	*	*	*	*
Max. 24-Hour Conc. (µg/m^3)	38.7	*	*	*	*
Fine Particulates ($PM_{2.5}$)[2]					
Federal 24-Hour > 35 µg/m^3 (days exceed threshold)	0	2	0	0	0
Max. 24-Hour Conc. (µg/m^3)	16.2	47.5	20.9	13.9	24.5

Source: CARB 2025.
ppm: parts per million; parts per billion, µg/m^3: micrograms per cubic meter
Notes: * Data not available.
[1] Latest data as of February 2025.
[2] Data obtained from the San Diego-Kearny Villa Road Monitoring Station.
[3] Data obtained from the El Cajon-Lexington Elementary School Monitoring Station.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public. The nearest sensitive receptors to the proposed project site are the residences along Richland Road to the north and east.

Methodology

Projected construction- and operation-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.29. CalEEMod compiles an emissions inventory of construction, area, energy (natural gas and purchased energy), water, waste, and vehicle emissions sources.

Thresholds of Significance

CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. However, the SDAPCD does not provide CEQA significance thresholds for any air pollutant source it does not directly regulate. The SDAPCD regulates emissions from stationary sources and not mobile sources under SDAPCD Regulation II, Rule 20.2, Table 20-2-1, Air Quality Impact Analysis (AQIA) Trigger Levels. Because the SDAPCD does not prescribe emissions thresholds for all air pollutants during construction and operation, the County of San Diego's guidelines were used to evaluate potential air quality impacts relative to CEQA (San Diego 2007). The County recognizes the SDAPCD's established screening level thresholds for air quality emissions (Rules 20.1 et seq.) as screening-level thresholds for land development projects. The County has also adopted the South Coast AQMD's screening threshold of 55 pounds per day or 10 tons per year as a screening level threshold for $PM_{2.5}$, and the South Coast AQMD's screening threshold of 75 lbs per day or 13.7 tons per year significance threshold for VOCs (South Coast AQMD 2023).

Regional Significance Thresholds

Table 4, *County of San Diego Air Quality Significance Thresholds*, lists regional emissions thresholds used in the following analysis.

Table 4 County of San Diego Screening-Level Thresholds for Air Quality Impact Analysis

Air Pollutant	Threshold	
	lb/day	Tons/year
Volatile Organic Compounds (VOC)[1]	75 lbs/day	13.7 tons/year[2]
Nitrogen Oxides (NO_X)	250 lbs/day	40 tons/year
Carbon Monoxide (CO)	550 lbs/day	100 tons/year
Sulfur Oxides (SO_X)	250 lbs/day	40 tons/year
Coarse Inhalable Particulates (PM_{10})	100 lbs/day	15 tons/year
Fine Inhalable Particulates ($PM_{2.5}$)[3]	55 lbs/day	10 tons/year

Source: San Diego 2007.
Notes: Based on SDAPCD Regulation 2, 20.2 (d) (2): Operational Emission Thresholds, and SDAPCD Regulation 20.3.
1 Threshold for VOCs based on the threshold of significance for VOCs from the South Coast AQMD threshold.
2 13.7 tons per year threshold based on 75 pounds per day multiplied by 365 days per year and divided by 2,000 pounds per ton.
3 US EPA 2005. Also used by the South Coast AQMD.

CO HOTSPOTS

The significance of localized project impacts depends on whether the project would cause substantial concentrations of CO. Prior to 1998 the SDAB was designated as nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the SDAB and in the state have steadily declined. In 1998, the SDAPCD was designated as in attainment for CO under both the CAAQS and NAAQS and was under a 10-year federal maintenance plan for CO as a result of its redesignation. The current version of the maintenance plan is the 2004 Revision to the *California State Implementation Plan (SIP) for Carbon Monoxide Updated Maintenance Plan for Ten Federal Planning Areas*, which was approved as an SIP revision in January 2006 (CARB 2004).

Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2023). Therefore, the potential for CO hotspots to be generated in the SDAB is extremely unlikely because of the improvements in vehicle emission rates and control efficiencies.

GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[4] carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[5] The major GHG are briefly described below.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

[4] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

[5] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 5, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2*. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fifth Assessment Report (AR5) GWP values for CH_4, a project that generates 10 MT of CH_4 would be equivalent to 280 MT of CO_2.[6]

Table 5 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Fourth Assessment Report (AR4) Global Warming Potential Relative to CO_2[1]	Fifth Assessment Report (AR5) Global Warming Potential Relative to CO_2[1]	Sixth Assessment Report (AR6) Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	1	1	1
Methane[2] (CH_4)	25	28	30
Nitrous Oxide (N_2O)	298	265	273

Source: IPCC 2007, 2013, and 2023.
Notes: The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflect latest information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting.
1 Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.
2 The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

California's Greenhouse Gas Sources and Relative Contribution

In 2023, the statewide GHG emissions inventory was updated for 2000 to 2021 emissions using the GWPs in IPCC's AR4 and reported that California produced 381.3 MMTCO2e GHG emissions in 2021 (49.7 $MMTCO_2e$ below the 2020 GHG Limit of 431 $MMTCO_2e$) (IPCC 2013). The growth in statewide emissions from 2020 to 2021 was likely due in large part to the increase of transportation and other economic activity that occurred in 2021 relative to 2020 as the California emerged from the COVID-19 pandemic.

California's transportation sector was the single-largest generator of GHG emissions, producing 38.2 percent of the state's total emissions. Industrial sector emissions made up 19.4 percent, and electric power generation made up 16.4 percent of the state's emissions inventory. Other major sectors of GHG emissions include residential and commercial (10.2 percent), agriculture and forestry (8.1 percent), high GWP (5.6 percent), and recycling and waste (2.2 percent) (CARB 2023).

Since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit (AB 32 target for year 2020) and have remained below the Limit since that time. Additionally, per capita GHG emissions have dropped from a 2001 peak of 13.8 $MTCO_2e$ per person to 9.7 $MTCO_2e$ per person in 2021, a 30 percent decrease.

6 The global warming potential of a GHG is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Transportation emissions increased from 2020, likely from passenger vehicles whose emissions rebounded after COVID-19 shelter-in-place orders were lifted. Electricity emissions also increased compared to 2020; however, there has been continued growth of in-state solar generation and imported renewable electricity. High-GWP emissions have continued to increase as high-GWP gases replace ozone-depleting substances being phased out under the 1987 Montreal Protocol. Overall trends in the inventory also continue to demonstrate that the carbon intensity of California's economy (i.e., the amount of carbon pollution per million dollars of gross domestic product) is declining. From 2000 to 2021, the carbon intensity of California's economy decreased by 50.8 percent while the gross domestic product increased by 67.9 percent (CARB 2023).

Regulatory Settings

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per SDAPCD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO_2 per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2021 to 2035)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon (mpg) in 2025. On March 30, 2020, the EPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026.

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed SAFE Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, on March 31, 2022, the National Highway

Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards proposed will increase 8 percent annually for model years 2024 to 2025 and 10 percent annual for model year 2026. Overall, the new CAFE standards require a fleet average of 49 mpg for passenger vehicles and light trucks for model year 2026, which would be a 10 mpg increase relative to model year 2021 (NHTSA 2022).

On July 28, 2023, NHTSA proposed new CAFE standards for passenger cars and light trucks built in model years 2027-2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2027-2035. If finalized, the proposal would require an industry fleet-wide average of approximately 58 mpg for passenger cars and light trucks in model year 2032, by increasing fuel economy by 2 percent year over year for passenger cars and by 4 percent year over year for light trucks. For heavy-duty pickup trucks and vans, the proposal would increase fuel efficiency by 10 percent year over year (NHTSA 2023).

Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles

In 2024, the EPA issued a final rule, Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, that sets new, more protective standards to reduce harmful air pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027 (USEPA 2025). The final rule builds upon EPA's final standards for federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026 and leverages advances in clean car technology to help improve public health from vehicle emissions. These standards will phase in over model years 2027 through 2032. For light-duty vehicles, the standards are projected to result in an industry-wide average target for the light-duty fleet of 85 grams/mile (g/mile) of CO_2 in model year 2032, representing a nearly 50 percent reduction in projected fleet average emissions target levels relative to the existing MY 2026 standards (USEPA 2024b). The medium-duty vehicle standards are projected to result in an average target of 274 g/mile of CO2 by MY 2032, representing a 44 percent reduction in projected fleet average emissions target levels relative to the existing MY 2026 standards (USEPA 2024b). Overall, EPA projects that cumulative CO2 reductions as a result of the new standards are approximately 7.2 billion metric tons over the life of the program (USEPA 2024b).

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32) and Senate Bill 375 (SB 375).

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

Executive Order B-30-15

EO B-30-15, signed April 29, 2015, set a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. EO B-30-15 also directed CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in EO S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, "Safeguarding California", in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, set a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning that not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill 1279

AB 1279, signed by Governor Newsom in September 2022, codified the carbon neutrality targets of EO B-55-18 for year 2045 and sets a new legislative target for year 2045 of 85 percent below 1990 levels for anthropogenic GHG emissions. SB 1279 also requires CARB to update the Scoping Plan to address these new targets.

2022 Climate Change Scoping Plan

CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the State's anthropogenic GHG emissions (CARB 2022). The Scoping Plan provides updates to the previously adopted 2017 Scoping Plan and addresses the carbon neutrality goals of EO B-55-18 (discussed below) and the ambitious GHG reduction target as directed by AB 1279. Previous Scoping Plans focused on specific GHG reduction targets for our industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. The 2022 Scoping Plan updates the target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to capture and store carbon including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution at the same time.

The path forward was informed by the recent Sixth Assessment Report (AR6) of the IPCC and the measures would achieve 85 percent below 1990 levels by 2045 in accordance AB 1279. CARB's 2022 Scoping Plan identifies strategies as shown in Table 6, *Priority Strategies for Local Government Climate Action Plans*, that would be most impactful at the local level for ensuring substantial process towards the State's carbon neutrality goals.

Table 6 Priority Strategies for Local Government Climate Action Plans

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide EV charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).
VMT Reduction	Reduce or eliminate minimum parking standards.
	Implement Complete Streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking
	Implement parking pricing or transportation demand management pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances .
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing) .
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings) .

Source: CARB 2022

Based on Appendix D of the 2022 CARB Climate Change Scoping Plan, for residential and mixed-use development projects, CARB recommends first demonstrating that these land use development projects are aligned with State climate goals based on the attributes of land use development that reduce operational GHG emissions while simultaneously advancing fair housing. Attributes that accommodate growth in a manner consistent with the GHG and equity goals of SB 32 have all the following attributes:

- Transportation Electrification
  - Provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standards in the California Green Building Standards Code at the time of project approval.
- VMT Reduction
  - Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).
  - Does not result in the loss or conversion of the State's natural and working lands;
  - Consists of transit-supportive densities (minimum of 20 residential dwelling units/acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's Sustainable Communities Strategy (SCS);
  - Reduces parking requirements by:
    - Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or
    - Providing residential parking supply at a ratio of <1 parking space per dwelling unit; or
    - For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.
  - At least 20 percent of the units are affordable to lower-income residents;
  - Result in no net loss of existing affordable units.
- Building Decarbonization
  - Use all electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking (CARB 2022).

If the first approach to demonstrating consistency is not applicable (such as in the case of this school modernization project), the second approach to project-level alignment with state climate goals is to achieve net zero GHG emissions. The third approach to demonstrating project-level alignment with state climate goals is to align with GHG thresholds of significance, which many local air quality management (AQMDs) and air pollution control districts (APCDs) have developed or adopted (CARB 2022).

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 is defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018. The updated targets became effective in October2018. All SCSs adopted after October 1, 2018, are subject to these new targets. CARB's updated SB 375 targets for the SCAG region were an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018).

The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of "percent per capita" reductions in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies, such as statewide road user pricing. The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs to achieve the SB 375 targets. CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies (CARB 2018).

San Diego Association of Governments SCS

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their Regional Transportation Plan (RTP) (CARB 2010). In December 2021, San Diego Association of Governments (SANDAG) adopted the The 2021 Regional Plan (2021 Regional Plan), which 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). Combining the Regional Transportation Plan (RTP), Sustainable Communities Strategy (SCS), and Regional Comprehensive Plan (RCP), the Regional Plan complies with state and federal mandates, which involve the inclusion of an SCS to achieve GHG reduction targets set by CARB and compliance with federal civil rights requirements (Title VI); and environmental justice considerations, air quality conformity, and a public participation process.

The 2021 Regional Plan is guided by a vision for a fast, fair, and clean transportation system and a resilient region as well as three primary goals: efficient movement of people and good, access to affordable, reliable, and safe mobility options for everyone, as well as healthier air and reduced GHG emissions regionwide.

The SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. The SCS includes a land use pattern for forecasted growth and development that focuses on Mobility Hubs, which are communities with high concentrations of people, destinations, and travel choices, to concentrate future development. Beyond land use planning, the SCS also relies on changes to the transportation system to meet the state and federal mandates. To accomplish these targets, the Regional Plan incorporates five transformational strategies known as the 5 Big Moves:

- **Complete Corridors:** Roadways that offer dedicated, safe space for everyone, including people who walk, bike, drive, ride transit, and use Flexible Fleets, as well as those who drive freight vehicles.
- **Transit Leap:** A complete network of fast, convenient, and reliable transit services that connect people from where they live to where they want to go.
- **Mobility Hubs:** Vibrant centers of activity where transit and on-demand travel options, supported by safe streets, connect people with their destinations and businesses with their customers. Mobility Hubs are also planned to accommodate future growth and development.
- **Flexible Fleets:** Transportation services of many forms, varying in size from bikes to scooters to shuttles, that offer first- and last-mile connections to transit and alternatives to driving alone.
- **Next Operating System:** The underlying technology that allows people to connect to transportation services and a digital platform that allows for dynamic management of roadways and transit service.

With its coordinated transportation and land use planning, the SCS would achieve a 20 percent reduction in GHG emissions, exceeding the state's target of a 19 percent reduction from 2005 levels (SANDAG 2021).

Transportation Sector Specific Regulations

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZE vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in CO_2e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and uses market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directed the number of ZE vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020, Governor Newsom signed Executive Order N-79-20, whose goal is that 100 percent of in-state sales of new passenger cars and trucks will be ZE by 2035. Additionally, the fleet goals for trucks are that 100 percent of drayage trucks are ZE by 2035, and 100 percent of medium- and heavy-duty vehicles in the state are ZE by 2045, where feasible. The Executive Order's goal for the State is to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08, signed in November 2008, expanded the state's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Senate Bill 1020

SB 1020 was signed into law on September 16, 2022. It requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all state agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2045.

Energy Efficiency Regulations

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

On August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission in December 2021. The 2022 standards went into effect on January 1, 2023, replacing the existing 2019 standards. The 2022 standards would require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[7] The mandatory provisions of CALGreen became effective January 1, 2011. In 2021, the CEC approved the 2022 CALGreen, which went into effect on January 1, 2023, replacing the existing 2019 standards.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Diversion Regulations

AB 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of

[7] The green building standards became mandatory in the 2010 edition of the code.

CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

AB 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

AB 1826

In October of 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.

Water Efficiency Regulations

SBX7-7

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

AB 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Short-Lived Climate Pollutant Reduction Strategy

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter produced during the incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017). In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

Thresholds of Significance

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

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[8]

BRIGHT-LINE GHG EMISSIONS SIGNIFICANCE THRESHOLDS

The latest guidance for evaluating GHG emissions released by the County of San Diego is the guidance document entitled, *Guidelines for Determining Significance: Climate Change* (2018 Guidelines) (2018). In general, the guidelines to determine potential project impacts under County's 2018 Guidelines is based on consistency to the adopted Climate Action Plan (CAP) for the jurisdiction. However, in December 2018, the County's CAP was invalidated by the San Diego Superior Court of California in *Sierra Club vs Count of San Diego*. Additionally, school districts are not directly under the jurisdiction of the County of San Diego. Therefore, the CAP consistency checklist is not directly applicable to the San Marcos Unified District. In light of, and since the ruling, the County has not formally released updated guidelines in assessing GHG emissions impacts to account for the recent ruling. Until the SDAPCD provides updated formal guidance for GHG emissions impacts, the District has identified the following alternative bright-line metric to assess GHG emissions impacts Until the

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

SDAPCD provides updated formal guidance to account for the recent ruling, the District has identified the following alternative bright-line metric to assess GHG emissions impacts:

The bright-line significance threshold is a numeric, mass emissions threshold. In general, the bright-line threshold identifies the point at which additional analysis of project-related GHG emissions impacts is necessary. Projects below the established bright-line significance criteria have a *de minimis* contribution the local, regional, and/or statewide GHG emissions inventory and have less than significant impacts. Projects above this threshold may result in a substantial increase in GHG emissions.

The bright-line threshold is based on the methodology identified in the 2008 California Air Pollution Control Officers Association (CAPCOA) white paper (CAPCOA 2008). It is based on the market capture approach and reflects the amount of emissions that 90 percent of development projects surveyed in four cities within California would generate. CAPCOA identified that a bright-line threshold set at 900 $MTCO_2e$ would capture 90 percent of projects. In general, 900 $MTCO_2e$/yr corresponds to (1) a residential development of 50 dwelling units; (2) 35,000 square feet of office space; (3) 11,000 square feet of retail space; and (4) 6,300 square feet of supermarket space.

The 900 $MTCO_2e$/yr is a conservative bright-line threshold. As a comparison, the South Coast Air Quality Management District (South Coast AQMD) has also established a bright-line screening thresholds of 3,000 $MTCO_2e$ per year, respectively, for development projects based on similar market capture methodologies utilized by CAPCOA. The South Coast AQMD based their bright-line screening threshold on review of 711 CEQA projects and determined that 90 percent of the projects reviewed would exceed 3,000 $MTCO_2e$ per year (South Coast AQMD 2009).

Overall, for the purpose of this CEQA assessment, projects that are not exempt from CEQA are required to quantify project-level GHG emissions and compared to the bright-line threshold of 900 $MTCO_2e$/yr. A GHG inventory for a development project should include GHG emissions for the following GHG sectors where applicable: electricity, transportation, waste generation, wastewater treatment, and commercial and residential (e.g., natural gas use, area sources).[9] In addition, construction-related emissions are amortized over the lifetime of a project, which is conservatively estimated at 20 years unless a longer project lifetime can be substantiated (SBTF 2003). Projects that do not exceed the bright-line threshold of significance are considered to have a less than cumulatively considerable impact to climate change. Projects that do exceed the applicable GHG bright-line significance threshold would be considered potentially significant and would require inclusion of all feasible mitigation measures to reduce GHG emissions.

[9] Permitted sources are evaluated separately under the stationary source threshold of 10,000 $MTCO_2e$.

BIBLIOGRAPHY

Bay Area Air Quality Management District (BAAQMD). 2023, May. California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

California Air Pollution Control Officers Association (CAPCOA). 2008, January. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.

———. 2022. California Emissions Estimator Model (CalEEMod). Version 2022.1. Developed by: ICF in collaboration with the Sacramento Metropolitan Air Quality Management District.

California Air Resources Board (CARB). 1998, April 22. The Report on Diesel Exhaust. http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm.

———. 1999. California Air Resources Board (CARB). Final Staff Report: Update to the Toxic Air Contaminant List.

———. 2004, July 22. 2004 Revision to the California State Implementation Plan for Carbon Monoxide: Updated Maintenance Plan For Ten Federal Planning Areas.

———. 2005, April. Air Quality and Land Use Handbook: A Community Health Perspective. http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf.

———. 2010, August. Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.

———. 2017, March 14. Final Proposed Short-Lived Climate Pollutant Reduction Strategy. https://www.arb.ca.gov/cc/shortlived/shortlived.htm.

———. 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf

———. 2022, December 15. CARB 2022 Scoping Plan for Achieving Carbon Neutrality: /https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

———. 2023, December 14. California Greenhouse Gas 2000-2021: Trends of Emissions and Other Indicators. https://ww2.arb.ca.gov/sites/default/files/2023-12/2000_2021_ghg_inventory_trends.pdf.

———. 2024, July 16. Table of Ambient Air Quality Standards. https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf.

———. 2025, February 27 (accessed). Air Pollution Data Monitoring Cards (2019, 2020, 2021, 2022, and 2023). http://www.arb.ca.gov/adam/topfour/topfour1.php.

California Energy Commission (CEC) 2021, May 19. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.

Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/03/WGI_TAR_full_report.pdf.

———. 2007. Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf.

———. 2013. Fifth Assessment Report: Climate Change 2013. New York: Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf.

———. 2023. Sixth Assessment Report: Climate Change 2022. New York: Cambridge University Press. https://www.ipcc.ch/assessment-report/ar6/

National Highway Traffic Safety Administration (NHTSA). 2022, April 1. USDOT Announces New Vehicle Fuel Economy Standards for Model year 2024-2026. https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026.

———. 2023, July 28. Corporate Average Fuel Economy. NHTSA Announces New Proposal for CAFE and HDPUV Standards. https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.San Diego Association of Governments (SANDAG). 2021, December. San Diego Forward: 2021 Regional Plan. https://www.sandag.org/regional-plan/2021-regional-plan/-/media/8D0F181A086844E3A84C3D44576BED6B.ashx.

San Diego Association of Governments (SANDAG). 2021, December. 2021 Regional Plan. https://www.sandag.org/regional-plan/2021-regional-plan/final-2021-regional-plan

San Diego County Air Pollution Control District (SDAPCD). 2009, April 22. 2009 Regional Air Quality Strategy Revision. https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/2009-RAQS.pdf

———. 2022, December. 2022 Regional Air Quality Strategy (RAQS). https://www.sdapcd.org/content/dam/sdapcd/documents/grants/planning/Att.%20A%20-%202022%20RAQS.pdf.

———. 2025, February 2027 (accessed). Attainment Status. https://www.sdapcd.org/content/sdapcd/planning/attainment-status.html

San Diego, County of. 2007, March. County of San Diego Guidelines for Determining Significance. https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/AQ-Guidelines.pdf.

———. 2018, January. Guidelines for Determining Significance: Climate Chage. https://www.sandiegocounty.gov/content/dam/sdc/pds/advance/cap/Guidelines-for-Determining-Significance-for-Climate-Change.pdf

South Coast Air Quality Management District (South Coast AQMD). 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

———. 2009, November 19. GHG Meeting 14 Main Presentation. Greenhouse Gases (GHG) CEQA Significance Threshold Working Group. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2.

———. 2023, March (revised). South Coast AQMD Air Quality Significance Thresholds. https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25.

———. 2022, December. 2022 Final Air Quality Management Plan. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16

Sustainable Building Task Force. 2003, October. The Costs and Financial Benefits of Green Buildings.

US Environmental Protection Agency (USEPA). 2009, December. EPA: Greenhouse Gases Threaten Public Health and the Environment. Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity. https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html.

———. 2024a, February. Final Rule to Strengthen the National Air Quality Health Standard for Particulate Matter Fact Sheet. https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-overview.pdf.

———. 2024c, March. Regulatory Announcement: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles: Final Rule. https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1019VP5.pdf.———. 2025a, February 27 (accessed). Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants.

———. 2025, February 27 (accessed). Final Rule: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles. https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-multi-pollutant-emissions-standards-model#:~:text=On%20March%2020%2C%202024%2C%20EPA,starting%20with%20model%20year%202027.

Western Regional Climate Center (WRCC). 2025, February 27 (accessed). Vista 2 NNE Monitoring Station (Station ID No. 049378). California ([Station ID] 049378): Period of Record Monthly Climate Summary, 08/01/1957 to 05/12/2016. Western U.S. Climate Summaries. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9378.

Regional Construction Emissions Worksheet:

Demolition

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	2.397956721	22.19519743	19.92311368	0.03251048	0.917481722		0.917481722	0.844083181		0.844083181
	Dust From Material Movement						0	0		0	0
	Onsite truck	0	0	0	0	0	0	0	0	0	0
	Total	**2.40**	**22.20**	**19.92**	**0.03**	**0.92**	**0.00**	**0.92**	**0.84**	**0.00**	**0.84**
Offsite											
	Worker	0.060487129	0.045877095	0.694661168	0	0	0.126858775	0.126858775	0	0.029735494	0.029735494
	Vendor	0	0	0	0	0	0	0	0	0	0
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.06**	**0.05**	**0.69**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.03**	**0.03**
TOTAL		***2.46***	***22.24***	***20.62***	***0.03***	***0.92***	***0.13***	***1.04***	***0.84***	***0.03***	***0.87***
Onsite		**Winter**									
	Off-Road Equipment										
	Dust From Material Movement										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road Equipment	2.40	22.20	19.92	0.03	0.92	0.00	0.92	0.84	0.00	0.84
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**2.40**	**22.20**	**19.92**	**0.03**	**0.92**	**0.00**	**0.92**	**0.84**	**0.00**	**0.84**
Offsite											
	Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03
	Vendor	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
	Total	**0.06**	**0.05**	**0.69**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.03**	**0.03**
TOTAL		***2.46***	***22.24***	***20.62***	***0.03***	***0.92***	***0.13***	***1.04***	***0.84***	***0.03***	***0.87***

Demolition Haul

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	0.107438949	1.101577061	1.908505979	0.002682673	0.042414957		0.042414957	0.03902176		0.03902176
	Dust From Material Movement						2.407176854	2.407176854		0.364515352	0.364515352
	Onsite truck	0	0	0	0	0	0	0	0	0	0
	Total	**0.11**	**1.10**	**1.91**	**0.00**	**0.04**	**2.41**	**2.45**	**0.04**	**0.36**	**0.40**
Offsite											
	Worker	0.010081188	0.007646183	0.115776861	0	0	0.021143129	0.021143129	0	0.004955916	0.004955916
	Vendor	0	0	0	0	0	0	0	0	0	0
	Hauling	0.034833037	2.202858922	0.802923558	0.011023113	0.031746566	0.444959789	0.476706355	0.031746566	0.121822136	0.153568702
	Total	**0.04**	**2.21**	**0.92**	**0.01**	**0.03**	**0.47**	**0.50**	**0.03**	**0.13**	**0.16**
TOTAL		***0.15***	***3.31***	***2.83***	***0.01***	***0.07***	***2.87***	***2.95***	***0.07***	***0.49***	***0.56***
Onsite		**Winter**									
	Off-Road Equipment										
	Dust From Material Movement										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road Equipment	0.11	1.10	1.91	0.00	0.04	0.00	0.04	0.04	0.00	0.04
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.00	2.41	2.41	0.00	0.36	0.36
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.11**	**1.10**	**1.91**	**0.00**	**0.04**	**2.41**	**2.45**	**0.04**	**0.36**	**0.40**
Offsite											
	Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.00	0.00
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hauling	0.03	2.20	0.80	0.01	0.03	0.44	0.48	0.03	0.12	0.15
	Total	**0.04**	**2.21**	**0.92**	**0.01**	**0.03**	**0.47**	**0.50**	**0.03**	**0.13**	**0.16**
TOTAL		***0.15***	***3.31***	***2.83***	***0.01***	***0.07***	***2.87***	***2.95***	***0.07***	***0.49***	***0.56***

Demolition Debris Reprocessing

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	0.504149118	3.936435002	5.856413005	0.022511007	0.086384249		0.086384249	0.079473509		0.079473509
	Dust From Material Movement						0	0		0	0
	Onsite truck	0	0	0	0	0	0	0	0	0	0
	Total	**0.50**	**3.94**	**5.86**	**0.02**	**0.09**	**0.00**	**0.09**	**0.08**	**0.00**	**0.08**
Offsite											

	Worker	0.020162376	0.015292365	0.231553723	0	0	0.042286258	0.042286258	0	0.009911831	0.009911831
	Vendor	0	0	0	0	0	0	0	0	0	0
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.02**	**0.02**	**0.23**	**0.00**	**0.00**	**0.04**	**0.04**	**0.00**	**0.01**	**0.01**
TOTAL		***0.52***	***3.95***	***6.09***	***0.02***	***0.09***	***0.04***	***0.13***	***0.08***	***0.01***	***0.09***
Onsite		**Winter**									
	Off-Road Equipment										
	Dust From Material Movement										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road Equipment	0.50	3.94	5.86	0.02	0.09	0.00	0.09	0.08	0.00	0.08
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.50**	**3.94**	**5.86**	**0.02**	**0.09**	**0.00**	**0.09**	**0.08**	**0.00**	**0.08**
Offsite											
	Worker	0.02	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01
	Vendor	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
	Total	**0.02**	**0.02**	**0.23**	**0.00**	**0.00**	**0.04**	**0.04**	**0.00**	**0.01**	**0.01**
TOTAL		***0.52***	***3.95***	***6.09***	***0.02***	***0.09***	***0.04***	***0.13***	***0.08***	***0.01***	***0.09***

Site Preparation

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	3.310349421	31.6407783	30.1754694	0.04887601	1.365552588		1.365552588	1.256308376		1.256308376
	Dust From Material Movement						7.666233427	7.666233427		3.939953946	3.939953946
	Onsite truck	0.000738108	0.019823967	0.01204694	4.93835E-05	8.2012E-05	0.460227733	0.460309745	8.2012E-05	0.046001512	0.046083524
	Total	**3.31**	**31.66**	**30.19**	**0.05**	**1.37**	**8.13**	**9.49**	**1.26**	**3.99**	**5.24**
Offsite											
	Worker	0.070568317	0.053523278	0.810438029	0	0	0.148001904	0.148001904	0	0.034691409	0.034691409
	Vendor	0.008093611	0.26637309	0.123677566	0.001345702	0.002691403	0.051201247	0.053892651	0.002691403	0.014146014	0.016837417
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.08**	**0.32**	**0.93**	**0.00**	**0.00**	**0.20**	**0.20**	**0.00**	**0.05**	**0.05**
TOTAL		***3.39***	***31.98***	***31.12***	***0.05***	***1.37***	***8.33***	***9.69***	***1.26***	***4.03***	***5.29***
Onsite		**Winter**									
	Off-Road Equipment										
	Dust From Material Movement										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road Equipment	3.31	31.64	30.18	0.05	1.37	0.00	1.37	1.26	0.00	1.26
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.00	7.67	7.67	0.00	3.94	3.94
	Onsite truck	0.00	0.02	0.01	0.00	0.00	0.46	0.46	0.00	0.05	0.05
	Total	**3.31**	**31.66**	**30.19**	**0.05**	**1.37**	**8.13**	**9.49**	**1.26**	**3.99**	**5.24**
Offsite											
	Worker	0.07	0.05	0.81	0.00	0.00	0.15	0.15	0.00	0.03	0.03
	Vendor	0.01	0.27	0.12	0.00	0.00	0.05	0.05	0.00	0.01	0.02
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.08**	**0.32**	**0.93**	**0.00**	**0.00**	**0.20**	**0.20**	**0.00**	**0.05**	**0.05**
TOTAL		***3.39***	***31.98***	***31.12***	***0.05***	***1.37***	***8.33***	***9.69***	***1.26***	***4.03***	***5.29***

Grading

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	1.742834466	16.27370612	17.9143545	0.027317415	0.721972515		0.721972515	0.664214713		0.664214713
	Dust From Material Movement						2.762208715	2.762208715		1.33564727	1.33564727
	Onsite truck	0.00072003	0.018196955	0.011540758	4.03446E-05	5.48951E-05	0.30805566	0.308110555	5.48951E-05	0.030791334	0.030846229
	Total	**1.74**	**16.29**	**17.93**	**0.03**	**0.72**	**3.07**	**3.79**	**0.66**	**1.37**	**2.03**
Offsite											
	Worker	0.060487129	0.045877095	0.694661168	0	0	0.126858775	0.126858775	0	0.029735494	0.029735494
	Vendor	0.006070208	0.199779817	0.092758175	0.001009276	0.002018553	0.038400936	0.040419488	0.002018553	0.01060951	0.012628063
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.07**	**0.25**	**0.79**	**0.00**	**0.00**	**0.17**	**0.17**	**0.00**	**0.04**	**0.04**
TOTAL		***1.81***	***16.54***	***18.71***	***0.03***	***0.72***	***3.24***	***3.96***	***0.67***	***1.41***	***2.07***
Onsite		**Winter**									
	Off-Road Equipment										
	Dust From Material Movement										
	Onsite truck										

	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road	1.74	16.27	17.91	0.03	0.72	0.00	0.72	0.66	0.00	0.66
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.00	2.76	2.76	0.00	1.34	1.34
	Onsite truck	0.00	0.02	0.01	0.00	0.00	0.31	0.31	0.00	0.03	0.03
	Total	**1.74**	**16.29**	**17.93**	**0.03**	**0.72**	**3.07**	**3.79**	**0.66**	**1.37**	**2.03**
Offsite											
	Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03
	Vendor	0.01	0.20	0.09	0.00	0.00	0.04	0.04	0.00	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.07**	**0.25**	**0.79**	**0.00**	**0.00**	**0.17**	**0.17**	**0.00**	**0.04**	**0.04**
TOTAL		***1.81***	***16.54***	***18.71***	***0.03***	***0.72***	***3.24***	***3.96***	***0.67***	***1.41***	***2.07***

Grading Soil Haul

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	0.107438949	1.101577061	1.908505979	0.002682673	0.042414957		0.042414957	0.03902176		0.03902176
	Dust From Material Movement						0.008271297	0.008271297		0.001252511	0.001252511
	Onsite truck	0.00072003	0.018196955	0.011540758	4.03446E-05	5.48951E-05	0.30805566	0.308110555	5.48951E-05	0.030791334	0.030846229
	Total	**0.11**	**1.12**	**1.92**	**0.00**	**0.04**	**0.32**	**0.36**	**0.04**	**0.03**	**0.07**
Offsite											
	Worker	0.010081188	0.007646183	0.115776861	0	0	0.021143129	0.021143129	0	0.004955916	0.004955916
	Vendor	0.006070208	0.199779817	0.092758175	0.001009276	0.002018553	0.038400936	0.040419488	0.002018553	0.01060951	0.012628063
	Hauling	0.092065041	6.04877899	2.164057564	0.030688347	0.088890384	1.245887409	1.334777793	0.088890384	0.34110198	0.429992364
	Total	**0.11**	**6.26**	**2.37**	**0.03**	**0.09**	**1.31**	**1.40**	**0.09**	**0.36**	**0.45**
TOTAL		***0.22***	***7.38***	***4.29***	***0.03***	***0.13***	***1.62***	***1.76***	***0.13***	***0.39***	***0.52***
Onsite		**Winter**									
	Off-Road Equipment										
	Dust From Material Movement										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road	0.11	1.10	1.91	0.00	0.04	0.00	0.04	0.04	0.00	0.04
	Dust From Material Movement	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
	Onsite truck	0.00	0.02	0.01	0.00	0.00	0.31	0.31	0.00	0.03	0.03
	Total	**0.11**	**1.12**	**1.92**	**0.00**	**0.04**	**0.32**	**0.36**	**0.04**	**0.03**	**0.07**
Offsite											
	Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.00	0.00
	Vendor	0.01	0.20	0.09	0.00	0.00	0.04	0.04	0.00	0.01	0.01
	Hauling	0.09	6.05	2.16	0.03	0.09	1.25	1.33	0.09	0.34	0.43
	Total	**0.11**	**6.26**	**2.37**	**0.03**	**0.09**	**1.31**	**1.40**	**0.09**	**0.36**	**0.45**
TOTAL		***0.22***	***7.38***	***4.29***	***0.03***	***0.13***	***1.62***	***1.76***	***0.13***	***0.39***	***0.52***

Construction

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	2.9873	23.91847968	16.51916304	0.02582948	1.697337837		1.697337837	1.56155081		1.56155081
	Onsite truck	0	0	0	0	0	0	0	0	0	0
	Total	**2.99**	**23.92**	**16.52**	**0.03**	**1.70**	**0.00**	**1.70**	**1.56**	**0.00**	**1.56**
Offsite											
	Worker	0.040324753	0.03058473	0.463107445	0	0	0.084572517	0.084572517	0	0.019823662	0.019823662
	Vendor	0	0	0	0	0	0	0	0	0	0
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.04**	**0.03**	**0.46**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.02**	**0.02**
TOTAL		***3.03***	***23.95***	***16.98***	***0.03***	***1.70***	***0.08***	***1.78***	***1.56***	***0.02***	***1.58***
Onsite		**Winter**									
	Off-Road Equipment										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road	2.99	23.92	16.52	0.03	1.70	0.00	1.70	1.56	0.00	1.56
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**2.99**	**23.92**	**16.52**	**0.03**	**1.70**	**0.00**	**1.70**	**1.56**	**0.00**	**1.56**

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Offsite											
	Worker	0.04	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02
	Vendor	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
	Total	**0.04**	**0.03**	**0.46**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.02**	**0.02**
TOTAL		***3.03***	***23.95***	***16.98***	***0.03***	***1.70***	***0.08***	***1.78***	***1.56***	***0.02***	***1.58***

Field Lighting Installation

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	0.377533513	3.659746683	3.121384916	0.009146741	0.148467778		0.148467778	0.136590357		0.136590357
	Onsite truck	0	0	0	0	0	0	0	0	0	0
	Total	**0.38**	**3.66**	**3.12**	**0.01**	**0.15**	**0.00**	**0.15**	**0.14**	**0.00**	**0.14**
Offsite											
	Worker	0.010081188	0.007646183	0.115776861	0	0	0.021143129	0.021143129	0	0.004955916	0.004955916
	Vendor	0.002023403	0.066593272	0.030919392	0.000336425	0.000672851	0.012800312	0.013473163	0.000672851	0.003536503	0.004209354
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.01**	**0.07**	**0.15**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.01**	**0.01**
TOTAL		***0.39***	***3.73***	***3.27***	***0.01***	***0.15***	***0.03***	***0.18***	***0.14***	***0.01***	***0.15***
Onsite		**Winter**									
	Off-Road Equipment										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road	0.38	3.66	3.12	0.01	0.15	0.00	0.15	0.14	0.00	0.14
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.38**	**3.66**	**3.12**	**0.01**	**0.15**	**0.00**	**0.15**	**0.14**	**0.00**	**0.14**
Offsite											
	Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.00	0.00
	Vendor	0.00	0.07	0.03	0.00	0.00	0.01	0.01	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
	Total	**0.01**	**0.07**	**0.15**	**0.00**	**0.00**	**0.03**	**0.03**	**0.00**	**0.01**	**0.01**
TOTAL		***0.39***	***3.73***	***3.27***	***0.01***	***0.15***	***0.03***	***0.18***	***0.14***	***0.01***	***0.15***

Paving

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	0.799681451	7.454100957	9.981678624	0.013954216	0.348588244		0.348588244	0.320701184		0.320701184
	Paving	0									
	Onsite truck	0	0	0	0	0	0	0	0	0	0
	Total	**0.80**	**7.45**	**9.98**	**0.01**	**0.35**	**0.00**	**0.35**	**0.32**	**0.00**	**0.32**
Offsite											
	Worker	0.060487129	0.045877095	0.694661168	0	0	0.126858775	0.126858775	0	0.029735494	0.029735494
	Vendor	0.002023403	0.066593272	0.030919392	0.000336425	0.000672851	0.012800312	0.013473163	0.000672851	0.003536503	0.004209354
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.06**	**0.11**	**0.73**	**0.00**	**0.00**	**0.14**	**0.14**	**0.00**	**0.03**	**0.03**
TOTAL		***0.86***	***7.57***	***10.71***	***0.01***	***0.35***	***0.14***	***0.49***	***0.32***	***0.03***	***0.35***
Onsite		**Winter**									
	Off-Road Equipment										
	Paving										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road	0.80	7.45	9.98	0.01	0.35	0.00	0.35	0.32	0.00	0.32
	Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.80**	**7.45**	**9.98**	**0.01**	**0.35**	**0.00**	**0.35**	**0.32**	**0.00**	**0.32**
Offsite											
	Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03
	Vendor	0.00	0.07	0.03	0.00	0.00	0.01	0.01	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
	Total	**0.06**	**0.11**	**0.73**	**0.00**	**0.00**	**0.14**	**0.14**	**0.00**	**0.03**	**0.03**
TOTAL		***0.86***	***7.57***	***10.71***	***0.01***	***0.35***	***0.14***	***0.49***	***0.32***	***0.03***	***0.35***

Coating

		VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite		**Summer**									
	Off-Road Equipment	0.127960056	0.882279697	1.13984314	0.001726111	0.027426557		0.027426557	0.025232433		0.025232433
	Architectural Coatings	18.32928097									
	Onsite truck	0	0	0	0	0	0	0	0	0	0

	Total	**18.46**	**0.88**	**1.14**	**0.00**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**
Offsite											
	Worker	0.008064951	0.006116946	0.092621489	0	0	0.016914503	0.016914503	0	0.003964732	0.003964732
	Vendor	0	0	0	0	0	0	0	0	0	0
	Hauling	0	0	0	0	0	0	0	0	0	0
	Total	**0.01**	**0.01**	**0.09**	**0.00**	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**
TOTAL		***18.47***	***0.89***	***1.23***	***0.00***	***0.03***	***0.02***	***0.04***	***0.03***	***0.00***	***0.03***
Onsite		**Winter**									
	Off-Road Equipment										
	Architectural Coatings										
	Onsite truck										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite											
	Worker										
	Vendor										
	Hauling										
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
Onsite											
	Off-Road	0.13	0.88	1.14	0.00	0.03	0.00	0.03	0.03	0.00	0.03
	Architectural Coatings	18.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**18.46**	**0.88**	**1.14**	**0.00**	**0.03**	**0.00**	**0.03**	**0.03**	**0.00**	**0.03**
Offsite											
	Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.00	0.00
	Vendor	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
	Total	**0.01**	**0.01**	**0.09**	**0.00**	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**
TOTAL		***18.47***	***0.89***	***1.23***	***0.00***	***0.03***	***0.02***	***0.04***	***0.03***	***0.00***	***0.03***

	VOC	NOx	CO	SO_2	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Demolition, Demolition Haul, & Demolition Debris Reprocessing	*3*	*30*	*30*	*0*	*1*	*3*	*4*	*1*	*1*	*2*
Demolition Haul, Demolition Debris Reprocessing, & Site Preparation	*4*	*39*	*40*	*0*	*2*	*11*	*13*	*1*	*5*	*6*
Demolition Haul & Site Preparation	*4*	*35*	*34*	*0*	*1*	*11*	*13*	*1*	*5*	*6*
Demolition Haul, Grading, & Gradiing Soil Haul	*2*	*27*	*26*	*0*	*1*	*8*	*9*	*1*	*2*	*3*
Grading Soil Haul, Construction, & Field Lighting Installation	*4*	*35*	*25*	*0*	*2*	*2*	*4*	*2*	*0*	*2*
Construction & Field Lighting Installation	*3*	*28*	*20*	*0*	*2*	*0*	*2*	*2*	*0*	*2*
Construction	*3*	*24*	*17*	*0*	*2*	*0*	*2*	*2*	*0*	*2*
Paving & Coating	*19*	*8*	*12*	*0*	*0*	*0*	*1*	*0*	*0*	*0*
MAX DAILY	**19**	**39**	**40**	**0**	**2**	**11**	**13**	**2**	**5**	**6**
San Diego County Thresholds	**75**	**250**	**550**	**250**	**n/a**	**n/a**	**100**	**n/a**	**n/a**	**55**
Exceeds Thresholds?	No	No	No	No	No	No	No	No	No	No

Regional Construction Emissions Worksheet:

Demolition

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.00719387	0.066585592	0.059769341	9.75314E-05	0.002752445		0.002752445	0.00253225		0.00253225
Dust From Material Movement						0	0		0	0
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.01**	**0.07**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite										
Worker	0.000176501	0.000152483	0.001852611	0	0	0.000377448	0.000377448	0	8.84244E-05	8.84244E-05
Vendor	0	0	0	0	0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.01***	***0.07***	***0.06***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***

Demolition Haul

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.000859512	0.008812616	0.015268048	2.14614E-05	0.00033932		0.00033932	0.000312174		0.000312174
Dust From Material Movement						0.019257415	0.019257415		0.002916123	0.002916123
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**
Offsite										
Worker	7.84449E-05	6.77701E-05	0.000823382	0	0	0.000167755	0.000167755	0	3.92997E-05	3.92997E-05
Vendor	0	0	0	0	0	0	0	0	0	0
Hauling	0.000275137	0.01826133	0.00644808	8.81849E-05	0.000253973	0.003537377	0.003791349	0.000253973	0.000969002	0.001222974
Total	**0.00**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.00***	***0.03***	***0.02***	***0.00***	***0.00***	***0.02***	***0.02***	***0.00***	***0.00***	***0.00***

Demolition Debris Reprocessing

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.002520746	0.019682175	0.029282065	0.000112555	0.000431921		0.000431921	0.000397368		0.000397368
Dust From Material Movement						0	0		0	0
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.02**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite										
Worker	9.80561E-05	8.47126E-05	0.001029228	0	0	0.000209693	0.000209693	0	4.91247E-05	4.91247E-05
Vendor	0	0	0	0	0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.00***	***0.02***	***0.03***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***

Site Preparation

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.006620699	0.063281557	0.060350939	9.7752E-05	0.002731105		0.002731105	0.002512617		0.002512617
Dust From Material Movement						0.015332467	0.015332467		0.007879908	0.007879908
Onsite truck	1.43212E-06	4.06039E-05	2.44025E-05	9.88E-08	1.64E-07	0.000888199	0.000888364	1.64E-07	8.87843E-05	8.89483E-05
Total	**0.01**	**0.06**	**0.06**	**0.00**	**0.00**	**0.02**	**0.02**	**0.00**	**0.01**	**0.01**
Offsite										
Worker	0.000137279	0.000118598	0.001440919	0	0	0.000293571	0.000293571	0	6.87745E-05	6.87745E-05
Vendor	1.58345E-05	0.000549025	0.000250883	2.6914E-06	5.38281E-06	0.000101693	0.000107076	5.38281E-06	2.81148E-05	3.34976E-05
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.01***	***0.06***	***0.06***	***0.00***	***0.00***	***0.02***	***0.02***	***0.00***	***0.01***	***0.01***

Grading

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.005228503	0.048821118	0.053743064	8.19522E-05	0.002165918		0.002165918	0.001992644		0.001992644
Dust From Material Movement						0.008286626	0.008286626		0.004006942	0.004006942
Onsite truck	2.09395E-06	5.58349E-05	3.50852E-05	1.21E-07	1.65E-07	0.000891781	0.000891946	1.65E-07	8.91423E-05	8.9307E-05
Total	**0.01**	**0.05**	**0.05**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**
Offsite										
Worker	0.000176501	0.000152483	0.001852611	0	0	0.000377448	0.000377448	0	8.84244E-05	8.84244E-05
Vendor	1.78138E-05	0.000617653	0.000282243	3.02783E-06	6.05566E-06	0.000114405	0.000120461	6.05566E-06	3.16291E-05	3.76848E-05
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.01***	***0.05***	***0.06***	***0.00***	***0.00***	***0.01***	***0.01***	***0.00***	***0.00***	***0.01***

Grading Soil Haul

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.000429756	0.004406308	0.007634024	1.07307E-05	0.00016966		0.00016966	0.000156087		0.000156087
Dust From Material Movement						3.30852E-05	3.30852E-05		5.01004E-06	5.01004E-06
Onsite truck	2.79193E-06	7.44466E-05	4.67803E-05	1.61E-07	2.20E-07	0.001189041	0.001189261	2.20E-07	0.000118856	0.000119076
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite										
Worker	3.92224E-05	3.38851E-05	0.000411691	0	0	8.38773E-05	8.38773E-05	0	1.96499E-05	1.96499E-05
Vendor	2.37517E-05	0.000823538	0.000376324	4.03711E-06	8.07421E-06	0.00015254	0.000160614	8.07421E-06	4.21722E-05	5.02464E-05
Hauling	0.000364027	0.025079787	0.00868586	0.000122753	0.000355562	0.004952327	0.005307889	0.000355562	0.001356602	0.001712164
Total	**0.00**	**0.03**	**0.01**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**
TOTAL	***0.00***	***0.03***	***0.02***	***0.00***	***0.00***	***0.01***	***0.01***	***0.00***	***0.00***	***0.00***

Construction

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.0955936	0.76539135	0.528613217	0.000826543	0.054314811		0.054314811	0.049969626		0.049969626
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.10**	**0.77**	**0.53**	**0.00**	**0.05**	**0.00**	**0.05**	**0.05**	**0.00**	**0.05**
Offsite										
Worker	0.001255118	0.001084322	0.01317412	0	0	0.002684075	0.002684075	0	0.000628796	0.000628796
Vendor	0	0	0	0	0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.10***	***0.77***	***0.54***	***0.00***	***0.05***	***0.00***	***0.06***	***0.05***	***0.00***	***0.05***

Field Lighting Installation

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.002453968	0.023788353	0.020289002	5.94538E-05	0.000965041		0.000965041	0.000887837		0.000887837
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite										
Worker	6.37365E-05	5.50632E-05	0.000668998	0	0	0.000136301	0.000136301	0	3.1931E-05	3.1931E-05
Vendor	1.28655E-05	0.000446083	0.000203842	2.18677E-06	4.37353E-06	8.2626E-05	8.69995E-05	4.37353E-06	2.28433E-05	2.72168E-05
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.00***	***0.02***	***0.02***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***

Paving

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.001999204	0.018635252	0.024954197	3.48855E-05	0.000871471		0.000871471	0.000801753		0.000801753
Paving	0									
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite										
Worker	0.000147084	0.000127069	0.001543842	0	0	0.00031454	0.00031454	0	7.3687E-05	7.3687E-05
Vendor	4.94828E-06	0.00017157	7.84008E-05	8.41E-07	1.68213E-06	3.17792E-05	3.34613E-05	1.68213E-06	8.78587E-06	1.0468E-05
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.00***	***0.02***	***0.03***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***

Coating

	VOC	NOx	CO	SO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5Total
Onsite										
Off-Road Equipment	0.0003199	0.002205699	0.002849608	4.31528E-06	6.85664E-05		6.85664E-05	6.30811E-05		6.30811E-05
Architectural Coatings	0.045823202									
Onsite truck	0	0	0	0	0	0	0	0	0	0
Total	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite										
Worker	1.96112E-05	1.69425E-05	0.000205846	0	0	4.19387E-05	4.19387E-05	0	9.82493E-06	9.82493E-06
Vendor	0	0	0	0	0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTAL	***0.05***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***

	VOC	**NOx**	**CO**	**SO_2**	**PM10 Exhaust**	**PM10 Dust**	**PM10 Total**	**PM2.5 Exhaust**	**PM2.5 Dust**	**PM2.5Total**
Year 2025 Total	***0.171955209***	***1.069623221***	***0.842188652***	***0.001571284***	***0.065445908***	***0.059538008***	***0.124983916***	***0.060261087***	***0.018661851***	***0.078922938***
MAX DAILY	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
San Diego County Thresholds	**13.7**	**40**	**100**	**40**	**n/a**	**n/a**	**15**	**n/a**	**n/a**	**10**
Exceeds Thresholds?	No	No	No	No	No	No	No	No	No	No

GHG Emissions Inventory

Proposed Project Buildout

Construction[1]

	$MTCO_2e$
2025	160.691553
Total Construction	**161**
20-Year Amortization[2]	**8.03**

	$MTCO_2e$	%
Field Lighting	4.69	36%
Mobile Source[1]	0.48	4%
20-Year Construction Amortization	8.03	61%
	13	100%

CAPCOA Screening Threshold[3]	**900**
Exceed Threshold?	**No**

Notes

1 CalEEMod, Version 2022.1

2 Total construction emissions are amortized over 20 years per SBTF methodology; Sustainable Building Task Force. 2003, October. The Costs and Financial Benefits of Green Buildings. https://noharm-uscanada.org/sites/default/files/documents-files/34/Building_Green_Costs_Benefits.pdf .

3 California Air Pollution Control Officers Association (CAPCOA). 2008, January. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act

CalEEMod Inputs- Mission Hills High School Lighting and Improvements Project, Construction

Name:	Mission Hills High School Lighting Project, Construction
Project Number:	SMUS-07
Project Location:	1 Mission Hills Ct, San Marcos, CA 92069
County/Air Basin:	San Diego
Climate Zone:	13
Land Use Setting:	Urban
Operational Year:	2025
Utility Company:	San Diego Gas & Electric
Air Basin:	SDAB
Air District:	SDAPCD

Project Site Acreage	7.56
Disturbed Site Acreage	7.56

Hardscape Surfaces

Track surface:	69,450	square feet
Tennis Courts:	56,600	square feet
Discus/Shot Put:	6,000	square feet
Trench Drain:	400	square feet
Concrete Hardscape:	5,000	square feet

Non-Harscape Surfaces

Stadium Field:	78,000	square feet
Synthetic Turf Multi-Purpose Field:	83,000	square feet
Sand Volleyball Courts:	15,500	square feet
Landscaping Restoration:	15,500	square feet

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet	Landscape Square Feet
Parking	Other Non-Asphalt Surfaces	329.45	1000 sqft	7.563	329,450	93,500
				7.56		

Demolition

Asphalt Demolition Debris Export:[1] 1,800 tons
Asphalt Demolition Debris Onsite Recycling:[1] 2,000 tons

Component	Amount to be Demolished (tons)[1]	Haul Truck Capacity[1]	Haul Distance (miles)[1]	Total Trip Ends	Duration (days)[1]	Trip Ends Per Day
Asphalt (tons)	1,800	11	24	317	16	20
Total				317		

Notes
[1] Provided by San Marcos Unified School District

Soil Haul

Construction Activities	Volume (CY)[1]	Haul Truck Capacity (cy)[1]	Haul Distance (miles)[1]	Total Trip Ends	Duration (days)[1]	Trip Ends per Day
Grading Export	3,800	20	28	380	8	48

Notes
[1] Provided or based on information provided by San Marcos Unified School District

Construction Mitigation

SDAPCD Rule 55

Replace Ground Cover	PM10:	5	% Reduction
	PM25:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	61	% Reduction
	PM25:	61	% Reduction
Unpaved Roads	Vehicle Speed:	25	mph
	Clean Paved Road	9	% PM Reduction

Construction Activities and Schedule Assumptions

* Based on schedule provided by the San Marcos Unified School District

		CalEEMod Construction Schedule			
Construction Activities	Phase Type	Start Date	End Date	CalEEMod Duration (Workday)	Calendar Days
Demolition	Demolition	6/1/2025	6/29/2025	20	28
Site Preparation	Site Preparation	6/30/2025	7/14/2025	10	14
Grading	Grading	7/15/2025	8/12/2025	20	28
Building Construction	Building Construction	8/13/2025	7/1/2026	230	322
Paving	Paving	7/2/2026	7/30/2026	20	28
Architectural Coating	Architectural Coating	7/31/2026	8/28/2026	20	28

Mission Hills High School Normalization Calculations

CalEEMod Defaults Construction Duration	
453	days of construction
1.24	years of construction
14.89	months of construction

Assumed Construction Duration	
6/1/2025	**10/1/2025**
122	days
4.01	months

Norm Factor: 0.27

Adjusted CalEEMod Schedule

Construction Activities	Phase Type	Start Date	End Date	CalEEMod Duration (Workday)	Calendar Days
Demolition	Demolition	6/1/2025	6/9/2025	6	8
Demolition Debris Hauling	Demolition	6/1/2025	6/23/2025	16	22
Onsite Demolition Debris Reprocessing	Demolition	6/1/2025	6/13/2025	10	12
Site Preparation	Site Preparation	6/10/2025	6/14/2025	4	4
Grading	Grading	6/15/2025	6/23/2025	6	8
Grading Soil Hauling	Grading	6/15/2025	6/25/2025	8	10
Building Construction	Building Construction	6/24/2025	9/19/2025	64	87
Field Lighting Installation	Trenching	6/24/2025	7/11/2025	13	17
Paving	Paving	9/20/2025	9/28/2025	5	8
Architectural Coating	Architectural Coating	9/20/2025	9/28/2025	5	8

Overlapping Construction Schedule (CalEEMod)

Construction Activities	Phase Type	Start Date	End Date	CalEEMod Duration (Workday)
Demolition, Demolition Haul, & Demolition Debris Reprocessing		6/1/2025	6/9/2025	6
Demolition Haul, Demolition Debris Reprocessing, & Site Preparation		6/10/2025	6/13/2025	4
Demolition Haul, & Site Preparation		6/14/2025	6/14/2025	1
Demolition Haul, Grading, & Gradiing Soil Haul		6/15/2025	6/23/2025	6
Grading Soil Haul, Construction, & Field Lighting Installation		6/24/2025	6/25/2025	2
Construction, & Field Lighting Installation		6/26/2025	7/11/2025	12
Construction		7/12/2025	9/19/2025	50
Paving & Coating		9/20/2025	9/28/2025	5

CalEEMod Construction Off-Road Equipment Inputs

Source: CalEEMod defaults (except where noted).

Construction Equipment Details					
Equipment	**# of Equipment**	**hr/day**	**hp**	**load factor**	**total trips per day**
Demolition					
Concrete/Industrial Saw	1	8	33	0.73	
Excavators	3	8	36	0.38	
Rubber Tired Dozers	2	8	367	0.4	
Worker Trips					15
Vendor Trips					0
Hauling Trips					0
Demolition Debris Haul					
Tractor/Loader/Backhoe	1	8	84	0.37	
Worker Trips					3
Vendor Trips					0
Hauling Trips					20
Demolition Debris Onsite Reprocessing					
Tractor/Loader/Backhoe	1	8	84	0.37	
Paving Equipment	1	8	640	0.36	
Worker Trips					5
Vendor Trips					0
Hauling Trips					0
Site Preparation					
Rubber Tired Dozers	3	8	367	0.4	
Tractors/Loaders/Backhoes	4	8	84	0.37	
Worker Trips					18
Vendor Trips					8
Hauling Trips					0
Water Trucks		Acres Disturbed:	1.5		8
		Onsite Travel (mi/day)	1.24		
Grading					
Excavators	1	8	36	0.38	
Graders	1	8	148	0.41	
Rubber Tired Dozers	1	8	367	0.4	
Tractors/Loaders/Backhoes1	3	8	84	0.37	
Worker Trips					15
Vendor Trips					6
Hauling Trips					0
Water Trucks		Acres Disturbed:	1.00		6
		Onsite Travel (mi/day)	0.83		

Grading Soil Haul					
Tractors/Loaders/Backhoes[1]	1	8	84	0.37	
Worker Trips					3
Vendor Trips					0
Hauling Trips					48
Water Trucks		Acres Disturbed:			6
		Onsite Travel (mi/day)	0.83		
Construction					
Forklifts	3	8	82	0.2	
Excavators	2	8	172	0.38	
Generator Sets	1	8	14	0.74	
Tractors/Loaders/Backhoes	1	8	249	0.37	
Tractors/Loaders/Backhoes	1	8	70	0.37	
Worker Trips					10
Vendor Trips[2]					0
Hauling Trips					0
Field Lighting Installation					
Cranes	1	8	367	0.29	
Worker Trips					3
Vendor Trips[2]					2
Hauling Trips					0
Paving					
Pavers	2	8	81	0.42	
Paving Equipment	2	8	89	0.36	
Rollers	2	8	36	0.38	
Worker Trips					15
Vendor Trips[2]					2
Hauling Trips					0
Coating					
Air Compressors	1	6	37	0.48	
Worker Trips					2
Vendor Trips[2]					0
Hauling Trips					0

Notes:

[1] assumes use of one loader per day for soil hauling purposes

[2] assumes use of 1 concrete truck per day (2 one-way trips)

Water Truck Vendor Trip Calculation

Amount of Water (gal/acre/day)[1]	Water Truck Capacity (gallons)[2]
10,000	4,000

Notes:

[1] Based on data provided in Guidance for Application for Dust Control Permit
Maricopa County Air Quality Department. 2005, June. Guidance for Application of Dust Control Permit. https://www.epa.gov/sites/default/files/2019-04/documents/mr_guidanceforapplicationfordustcontrolpermit.pdf)

[2] Based on standard water truck capacity:
McLellan Industries. 2022, January (access). Water Trucks. https://www.mclellanindustries.com/trucks/water-trucks/

[3] Assumes that dozers, tractors/loaders/backhoes, and graders can disturb 0.50 acres per day and scrapers can disturb 1 acre per day.

CalEEMod Inputs- Mission Hills Lighting Project, Operation

Name:	Mission Hills High School Lighting Project, Operations
Project Number:	SMUS-07
Project Location:	1 Mission Hills Ct, San Marcos, CA 92069
County/Air Basin:	San Diego
Climate Zone:	13
Land Use Setting:	Urban
Operational Year:	2022
Utility Company:	San Diego Gas & Electric
Air Basin:	SDAB
Air District:	SDAPCD

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Parking	Other Non-Asphalt Surfaces	329.45	1000 sqft	7.563	329,450
				7.56	

Trips

Existing Tennis Spectators[1]

Activity	Number of Games	Spectators Per Game	Total Spectators
Tennis	20	20	400

Spectators After Project Implementation[1]

Activity	Number of Games	Spectators Per Game	Total Spectators
Tennis (low spectators range scenario)	20	14	280
Tennis (high spectators range scenario)	20	16	320
Volleyball (low spectators range scenario)	20	2	40
Volleyball (high spectators range scenario)	20	8	160

	After Project Spectators	Existing Tennis Spectators	Net Change in Spectators from Existing	One-Way Vehicle Trips Per Spectator[2]	Total Vehicle Trips
Tennis (low) + Volleyball (low)	320	400	-80	2	-160
Tennis (low) + Volleyball (high)	440	400	40	2	80
Tennis (high) + Volleyball (low)	360	400	-40	2	-80
Tennis (high) + Volleyball (high)	480	400	80	2	160

Average Daily Vehicle Trip Generation Rate:[3] 0.001867915 trips per 1,000 sqft

Notes

[1] Information provided by the San Marcos Unified School District.

[2] Assumed for purposes of this analysis.

[3] Based on 260 days per year in accordance with CalEEMod methodology.

Water Use

Student capacity is not anticipated to change from existing school capacity. Therefore, water use would be be similar to existing conditions and was not added to the model.

Solid Waste

Student capacity is not anticipated to change from existing school capacity. Therefore, solid waste generation would be be similar to existing conditions and was not added to the model. 0.024282896

Lighting (Electricity Use)

Electricity:

	Total kW [1]	Estimated Hours of Operation per day[2]	Days per week[3]	KWh (Annual)
Practices/Games	21.12	4	4	17,572
			Total Annual kWh	**17,572**

Calculation of GHGs from Field Lighting

CO_2 [4]	CH_4 [4]	N_2O [4]	CO_2e	CO_2e
lbs/Mwh	lbs/MWh	lbs/MWh	lbs/MWh	MT/KWh
588.98	0.03300	0.00400	589.02	0.0003

CO_2e from Lighting (MT/Year)	**4.69**

Notes

1 Based on Musco Lighting Plan for the proposed lighting as provided by the San Marcos Unified School District.
2 Based on the practice schedule from the San Marcos Unified School District. Assumes 4 days of use per week.
3 Based on average hours of lighting per event
4 CalEEMod default values

San Diego Gas and Electric Carbon Intensity Factors

CO2:[1]	588.98	pounds per megawatt hour
CH4:[1]	0.033	pound per megawatt hour
N2O:[1]	0.004	pound per megawatt hour

Notes:

1 CalEEMod default values.

Mission Hills HS Construction Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Mission Hills HS Construction
Construction Start Date	6/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	12.8
Location	1 Mission Hills Ct, San Marcos, CA 92069, USA
County	San Diego
City	San Marcos
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6278
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Other Non-Asphalt Surfaces	329	1000sqft	7.56	0.00	93,500	—	—	—

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.	19.5	19.3	39.2	40.0	0.09	1.98	11.2	12.8	1.83	4.54	5.95	—	10,552	10,552	0.52	1.10	15.8	10,910
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.08	0.94	5.86	4.61	0.01	0.36	0.33	0.68	0.33	0.10	0.43	—	1,007	1,007	0.04	0.04	0.23	1,020
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.17	1.07	0.84	< 0.005	0.07	0.06	0.12	0.06	0.02	0.08	—	167	167	0.01	0.01	0.04	169

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	19.5	19.3	39.2	40.0	0.09	1.98	11.2	12.8	1.83	4.54	5.95	—	10,552	10,552	0.52	1.10	15.8	10,910
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	1.08	0.94	5.86	4.61	0.01	0.36	0.33	0.68	0.33	0.10	0.43	—	1,007	1,007	0.04	0.04	0.23	1,020
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.20	0.17	1.07	0.84	< 0.005	0.07	0.06	0.12	0.06	0.02	0.08	—	167	167	0.01	0.01	0.04	169

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.	0.05	0.05	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	16.1	16.1	< 0.005	< 0.005	0.01	16.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.05	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	15.9	15.9	< 0.005	< 0.005	< 0.005	16.0
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.05	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	14.8	14.8	< 0.005	< 0.005	< 0.005	14.9
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	2.45	2.45	< 0.005	< 0.005	< 0.005	2.47

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	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.13	4.13	< 0.005	< 0.005	0.01	4.20
Area	0.05	0.05	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.05	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	16.1	16.1	< 0.005	< 0.005	0.01	16.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.95	3.95	< 0.005	< 0.005	< 0.005	4.00
Area	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.05	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	15.9	15.9	< 0.005	< 0.005	< 0.005	16.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.84	2.84	< 0.005	< 0.005	< 0.005	2.88
Area	0.05	0.05	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.05	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	14.8	14.8	< 0.005	< 0.005	< 0.005	14.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Area	0.01	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	1.98	1.98	< 0.005	< 0.005	—	1.99
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	2.45	2.45	< 0.005	< 0.005	< 0.005	2.47

3. Construction Emissions Details

3.1. 01_Demolition (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.36	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	—	56.3	56.3	< 0.005	< 0.005	—	56.5
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.07	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.32	9.32	< 0.005	< 0.005	—	9.35
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	2.23	2.23	< 0.005	< 0.005	< 0.005	2.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. 02_Demolition Haul (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	—	—	—	—	—	—	—	—	—B-60	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.10	1.91	< 0.005	0.04	—	0.04	0.04	—	0.04	—	290	290	0.01	< 0.005	—	291
Demolition	—	—	—	—	—	—	2.41	2.41	—	0.36	0.36	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.7	12.7	< 0.005	< 0.005	—	12.8
Demolition	—	—	—	—	—	—	0.11	0.11	—	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	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.11	2.11	< 0.005	< 0.005	—	2.12
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	23.7	23.7	< 0.005	< 0.005	0.09	24.1
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	0.13	0.03	2.20	0.80	0.01	0.03	0.44	0.48	0.03	0.12	0.15	—	1,718	1,718	0.09	0.27	3.75	1,804
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.01
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	0.01	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.3	75.3	< 0.005	0.01	0.07	79.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
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	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.5. 03_Demolition Debris Reprocessing (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	0.60	0.50	3.94	5.86	0.02	0.09	—	0.09	0.08	—	0.08	—	2,436	2,436	0.10	0.02	—	2,445
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	66.7	66.7	< 0.005	< 0.005	—	67.0
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.1
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.02	0.02	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	47.4	47.4	< 0.005	< 0.005	0.18	48.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
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

3.7. 04_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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.46	0.46	< 0.005	0.05	0.05	—	6.07	6.07	< 0.005	< 0.005	0.01	6.39
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.35	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	58.0	58.0	< 0.005	< 0.005	—	58.2

Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.61	9.61	< 0.005	< 0.005	—	9.64
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.81	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	166	166	0.01	0.01	0.62	169
Vendor	0.02	0.01	0.27	0.12	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	200	200	0.01	0.03	0.52	209
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	1.73	1.73	< 0.005	< 0.005	< 0.005	1.76
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.19	2.19	< 0.005	< 0.005	< 0.005	2.29
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	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.29

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.38
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 05_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	2.07	1.74	16.3	17.9	0.03	0.72	—	0.72	0.66	—	0.66	—	2,959	2,959	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.31	0.31	< 0.005	0.03	0.03	—	4.63	4.63	< 0.005	< 0.005	0.01	4.88
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.6	48.6	< 0.005	< 0.005	—	48.8
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.08
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	0.01	0.01	0.20	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	150	150	0.01	0.02	0.39	157
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	2.23	2.23	< 0.005	< 0.005	< 0.005	2.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.47	2.47	< 0.005	< 0.005	< 0.005	2.58
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	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.37
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.41	0.41	< 0.005	< 0.005	< 0.005	0.43
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

3.11. 06_Grading Soil Haul (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	0.13	0.11	1.10	1.91	< 0.005	0.04	—	0.04	0.04	—	0.04	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.31	0.31	< 0.005	0.03	0.03	—	4.63	4.63	< 0.005	< 0.005	0.01	4.88
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.37	6.37	< 0.005	< 0.005	—	6.39
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.05	1.05	< 0.005	< 0.005	—	1.06

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	23.7	23.7	< 0.005	< 0.005	0.09	24.1
Vendor	0.01	0.01	0.20	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	150	150	0.01	0.02	0.39	157
Hauling	0.35	0.09	6.05	2.16	0.03	0.09	1.25	1.33	0.09	0.34	0.43	—	4,795	4,795	0.26	0.75	10.5	5,037
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.50
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	< 0.005	3.44
Hauling	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	0.01	0.02	0.10	110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.57
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	17.4	17.4	< 0.005	< 0.005	0.02	18.3

3.13. 07_Building Construction (2025) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.56	2.99	23.9	16.5	0.03	1.70	—	1.70	1.56	—	1.56	—	2,749	2,749	0.11	0.02	—	2,758
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	4.19	2.90	< 0.005	0.30	—	0.30	0.27	—	0.27	—	482	482	0.02	< 0.005	—	484
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	0.11	0.10	0.77	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	79.8	79.8	< 0.005	< 0.005	—	80.1
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.36	96.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.03	16.1
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	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.66
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

3.15. 09_Paving (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	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.10	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.7	20.7	< 0.005	< 0.005	—	20.8
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	3.43	3.43	< 0.005	< 0.005	—	3.44
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.1	50.1	< 0.005	0.01	0.13	52.3
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.88
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	0.72
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	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
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. 010_Architectural Coating (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	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	18.3	18.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30
Architectural Coatings	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.0	19.0	< 0.005	< 0.005	0.07	19.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.25
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
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. 08_Field Lighting Installation (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	0.45	0.38	3.66	3.12	0.01	0.15	—	0.15	0.14	—	0.14	—	990	990	0.04	0.01	—	994
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.11	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	35.3	35.3	< 0.005	< 0.005	—	35.4
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	—	5.84	5.84	< 0.005	< 0.005	—	5.86
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	23.7	23.7	< 0.005	< 0.005	0.09	24.1
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.1	50.1	< 0.005	0.01	0.13	52.3

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.82
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.78	1.78	< 0.005	< 0.005	< 0.005	1.86
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	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.14
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.30	0.30	< 0.005	< 0.005	< 0.005	0.31
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 Non-Asphalt Surfaces	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.13	4.13	< 0.005	< 0.005	0.01	4.20
Total	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.13	4.13	< 0.005	< 0.005	0.01	4.20
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other Non-Asphalt Surfaces	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.95	3.95	< 0.005	< 0.005	< 0.005	4.00
Total	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.95	3.95	< 0.005	< 0.005	< 0.005	4.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48

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 Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

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 Non-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
Total	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-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
Total	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-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
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.05	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	1.98	1.98	< 0.005	< 0.005	—	1.99
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	1.98	1.98	< 0.005	< 0.005	—	1.99

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
01_Demolition	Demolition	6/1/2025	6/09/2025	5.00	6.00	—
02_Demolition Haul	Demolition	6/1/2025	6/23/2025	5.00	16.0	—
03_Demolition Debris Reprocessing	Demolition	6/1/2025	6/13/2025	5.00	10.0	—
04_Site Preparation	Site Preparation	6/10/2025	6/14/2025	5.00	4.00	—
05_Grading	Grading	6/15/2025	6/23/2025	5.00	6.00	—
06_Grading Soil Haul	Grading	6/15/2025	6/25/2025	5.00	8.00	—
07_Building Construction	Building Construction	6/24/2025	9/19/2025	5.00	64.0	—
09_Paving	Paving	9/20/2025	9/28/2025	5.00	5.00	—
010_Architectural Coating	Architectural Coating	9/20/2025	9/28/2025	5.00	5.00	—
08_Field Lighting Installation	Trenching	6/24/2025	7/10/2025	5.00	13.0	—

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
01_Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
01_Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
01_Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40

02_Demolition Haul	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
03_Demolition Debris Reprocessing	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
03_Demolition Debris Reprocessing	Paving Equipment	Diesel	Average	1.00	8.00	640	0.36
04_Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
04_Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
05_Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
05_Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
05_Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
05_Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
06_Grading Soil Haul	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
07_Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
07_Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
07_Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	70.0	0.37
07_Building Construction	Excavators	Diesel	Average	1.00	8.00	172	0.38
07_Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	249	0.37
09_Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
09_Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
09_Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
010_Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
08_Field Lighting Installation	Cranes	Diesel	Average	1.00	8.00	367	0.29

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
01_Demolition	—	—	—	—
01_Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
01_Demolition	Vendor	—	7.63	HHDT,MHDT
01_Demolition	Hauling	0.00	20.0	HHDT
01_Demolition	Onsite truck	—	—	HHDT
04_Site Preparation	—	—	—	—
04_Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
04_Site Preparation	Vendor	8.00	7.63	HHDT,MHDT
04_Site Preparation	Hauling	0.00	20.0	HHDT
04_Site Preparation	Onsite truck	1.00	1.24	HHDT
05_Grading	—	—	—	—
05_Grading	Worker	15.0	12.0	LDA,LDT1,LDT2
05_Grading	Vendor	6.00	7.63	HHDT,MHDT
05_Grading	Hauling	0.00	20.0	HHDT
05_Grading	Onsite truck	1.00	0.83	HHDT
07_Building Construction	—	—	—	—
07_Building Construction	Worker	10.0	12.0	LDA,LDT1,LDT2
07_Building Construction	Vendor	0.00	7.63	HHDT,MHDT
07_Building Construction	Hauling	0.00	20.0	HHDT
07_Building Construction	Onsite truck	—	—	HHDT
09_Paving	—	—	—	—
09_Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
09_Paving	Vendor	2.00	7.63	HHDT,MHDT
09_Paving	Hauling	0.00	20.0	HHDT

09_Paving	Onsite truck	—	—	HHDT
010_Architectural Coating	—	—	—	—
010_Architectural Coating	Worker	2.00	12.0	LDA,LDT1,LDT2
010_Architectural Coating	Vendor	—	7.63	HHDT,MHDT
010_Architectural Coating	Hauling	0.00	20.0	HHDT
010_Architectural Coating	Onsite truck	—	—	HHDT
02_Demolition Haul	—	—	—	—
02_Demolition Haul	Worker	2.50	12.0	LDA,LDT1,LDT2
02_Demolition Haul	Vendor	—	7.63	HHDT,MHDT
02_Demolition Haul	Hauling	20.0	24.0	HHDT
02_Demolition Haul	Onsite truck	—	—	HHDT
03_Demolition Debris Reprocessing	—	—	—	—
03_Demolition Debris Reprocessing	Worker	5.00	12.0	LDA,LDT1,LDT2
03_Demolition Debris Reprocessing	Vendor	—	7.63	HHDT,MHDT
03_Demolition Debris Reprocessing	Hauling	0.00	20.0	HHDT
03_Demolition Debris Reprocessing	Onsite truck	—	—	HHDT
06_Grading Soil Haul	—	—	—	—
06_Grading Soil Haul	Worker	2.50	12.0	LDA,LDT1,LDT2
06_Grading Soil Haul	Vendor	6.00	7.63	HHDT,MHDT
06_Grading Soil Haul	Hauling	48.0	28.0	HHDT
06_Grading Soil Haul	Onsite truck	1.00	0.83	HHDT
08_Field Lighting Installation	—	—	—	—
08_Field Lighting Installation	Worker	2.50	12.0	LDA,LDT1,LDT2
08_Field Lighting Installation	Vendor	2.00	7.63	HHDT,MHDT
08_Field Lighting Installation	Hauling	0.00	20.0	HHDT
08_Field Lighting Installation	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

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)
010_Architectural Coating	0.00	0.00	0.00	0.00	19,767

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
01_Demolition	0.00	0.00	0.00	0.00	—
02_Demolition Haul	0.00	0.00	0.00	1,800	—
03_Demolition Debris Reprocessing	0.00	0.00	0.00	—	—
04_Site Preparation	—	—	6.00	0.00	—
05_Grading	—	—	6.00	0.00	—
06_Grading Soil Haul	—	3,800	0.00	0.00	—
09_Paving	0.00	0.00	0.00	0.00	7.56

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	7.56	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	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 Non-Asphalt Surfaces	0.62	0.00	0.00	160	4.99	0.00	0.00	1,300

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	0.00	0.00	19,767

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 Non-Asphalt Surfaces	0.00	589	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	1,397,279

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.7	annual days of extreme heat
Extreme Precipitation	5.15	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10.5	annual hectares burned

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	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	45.0
AQ-PM	20.6
AQ-DPM	79.0
Drinking Water	24.2
Lead Risk Housing	29.9
Pesticides	0.00
Toxic Releases	17.5
Traffic	44.6
Effect Indicators	—
CleanUp Sites	22.6
Groundwater	47.4
Haz Waste Facilities/Generators	80.8
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	14.9
Cardio-vascular	52.6
Low Birth Weights	10.6
Socioeconomic Factor Indicators	—
Education	59.3
Housing	29.2
Linguistic	13.3
Poverty	32.8
Unemployment	7.14

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	39.75362505
Employed	37.66200436
Median HI	49.13383806
Education	—
Bachelor's or higher	40.07442577
High school enrollment	100
Preschool enrollment	86.2055691
Transportation	—
Auto Access	87.47593995
Active commuting	4.837674836
Social	—
2-parent households	47.74797896
Voting	75.45232901
Neighborhood	—
Alcohol availability	90.08084178
Park access	24.79147953
Retail density	74.14346208
Supermarket access	20.28743744
Tree canopy	9.200564609
Housing	—
Homeownership	89.16976774
Housing habitability	69.63941999
Low-inc homeowner severe housing cost burden	26.94726036
Low-inc renter severe housing cost burden	34.51815732

Uncrowded housing	79.21211344
Health Outcomes	—
Insured adults	43.11561658
Arthritis	31.2
Asthma ER Admissions	84.0
High Blood Pressure	71.3
Cancer (excluding skin)	29.3
Asthma	55.1
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	40.0
Diagnosed Diabetes	55.5
Life Expectancy at Birth	19.7
Cognitively Disabled	21.0
Physically Disabled	24.6
Heart Attack ER Admissions	72.6
Mental Health Not Good	51.7
Chronic Kidney Disease	45.1
Obesity	53.5
Pedestrian Injuries	19.6
Physical Health Not Good	56.1
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	10.1
Current Smoker	51.8
No Leisure Time for Physical Activity	57.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	68.4
Elderly	51.6
English Speaking	52.4
Foreign-born	21.0
Outdoor Workers	45.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.9
Traffic Density	72.8
Traffic Access	23.0
Other Indices	—
Hardship	39.9
Other Decision Support	—
2016 Voting	76.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	15.0
Healthy Places Index Score for Project Location (b)	54.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Based on CalEEMod defaults and information provided by the District.
Construction: Dust From Material Movement	Based on information provided by the District.
Construction: Trips and VMT	Based on information provided by the District. See assumptions in the AQ/GHG appendix file for details.
Construction: Off-Road Equipment	Assumes 1 loader for soil hauling and demolition debris hauling activities, 1 loader and 1 paving equipment for demolition debris onsite reprocessing activities, and 1 crane for field lighting installation activities for modeling purposes. See assumptions in AQ/GHG appendix for further details.
Operations: Vehicle Data	Assumes project could generate an annual net increase of 160 vehicle trips/yr. See assumptions file in the AQ/GHG appendix file of IS/MND.