Appendix A

Air Quality, Energy and GHG Technical Modeling

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1. AIR QUALITY AND GREENHOUSE GAS BACKGROUND AND MODELING DATA

1.1 AIR QUALITY

1.1.1 Air Quality Regulatory Setting

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 SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (South Coast AQMD). However, South Coast AQMD 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 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 µg/m3	*	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 µg/m3	150 µg/m3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4,6]	Annual Arithmetic Mean	12 µg/m3	9 µg/m3	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 µg/m3	

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Lead (Pb)	30-Day Average	1.5 µg/m3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m3	
	Rolling 3-Month Average	*	0.15 µg/m3	
Sulfates (SO_4)[5]	24 hours	25 µg/m3	*	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.
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.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
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 2024a.

Notes: ppm: parts per million; µg/m^3: 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 µg/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 December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 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.

6 On February 7, 2024, the national annual $PM_{2.5}$ standard was lowered from 12 µg/m^3 to 9 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary), secondary annual $PM_{2.5}$ standard, and PM_{10} standards (primary and secondary) were retained

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

AIR POLLUTANTS OF CONCERN

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 and include CO, VOC, NO_2, SO_X, PM_{10}, $PM_{2.5}$, and Pb. 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, toxic 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. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. 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; US EPA 2025a). The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS (CARB 2025a).

Volatile Organic Compounds (VOC) are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (South Coast AQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O_3, South Coast AQMD has established a significance threshold (South Coast AQMD 2023). The health effects for ozone are described later in this section.

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_X produced by combustion is NO, but NO reacts quickly with oxygen 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 asthmatics, 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 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 SoCAB is designated in attainment (maintenance) under the National AAQS and attainment under the California AAQS (CARB 2025a).[1]

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 chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. 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. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (South Coast AQMD 2005; USEPA 2025a). The SoCAB is designated as attainment under the California and National AAQS (CARB 2025a).

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 particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤0.01 millimeter). Inhalable fine particles, or $PM_{2.5}$, have an

[1] The CA-60 near-road portion of San Bernardino, Riverside and Los Angeles Counties has recently been redesignated as an attainment area based on data collected between 2018 and 2020 (South Coast AQMD 2022).

aerodynamic diameter of 2.5 microns or less (i.e., ≤0.002.5 millimeter). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. 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. The EPA's 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 far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (South Coast AQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.0001 millimeter) have human health implications because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA and the California Air Resources Board (CARB) have not adopted AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 2025b). Particulate matter can also cause environmental effects such as visibility impairment,[2] environmental damage,[3] and aesthetic damage[4] (South Coast AQMD 2005; USEPA 2025a). The SoCAB is a nonattainment area for $PM_{2.5}$ under California and National AAQS and a nonattainment area for PM_{10} under the California AAQS (CARB 2025a).[5]

Ozone (O_3) is a key ingredient of "smog" and 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 its formation. 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

2 $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

3 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.

4 Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

5 CARB approved the South Coast AQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM_{10} nonattainment area to attainment of the PM_{10} National AAQS, effective on July 26, 2013.

AQMD 2005; USEPA 2025a). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2025a).

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 2018). 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. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[6] As a result of these violations, the Los Angeles County portion of the SoCAB is designated as nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2025a). However, lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011 (South Coast AQMD 2012). CARB's State Implementation Plan (SIP) revision was submitted to the EPA for approval. Because emissions of lead are found only in projects that are permitted by South Coast AQMD, lead is not a pollutant of concern for the proposed project.

Table 2, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

[6] Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

Table 2 Criteria Air Pollutant Health Effects Summary

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	▪ Chest pain in heart patients ▪ Headaches, nausea ▪ Reduced mental alertness ▪ Death at very high levels	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O_3)	▪ Cough, chest tightness ▪ Difficulty taking a deep breath ▪ Worsened asthma symptoms ▪ Lung inflammation	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO_2)	▪ Increased response to allergens ▪ Aggravation of respiratory illness	Same as carbon monoxide sources
Particulate Matter (PM_{10} and $PM_{2.5}$)	▪ Hospitalizations for worsened heart diseases ▪ Emergency room visits for asthma ▪ Premature death	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO_2)	▪ Aggravation of respiratory disease (e.g., asthma and emphysema) ▪ Reduced lung function	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	▪ Behavioral and learning disabilities in children ▪ Nervous system impairment	Contaminated soil

Source: CARB 2025c.

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

The South Coast AQMD is the agency responsible for improving air quality in the SoCAB and ensuring that the National and California AAQS are attained and maintained. South Coast AQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2022 AQMP

South Coast AQMD adopted the 2022 AQMP on December 2, 2022, which serves as an update to the 2017 AQMP. On October 1, 2015, the EPA strengthened the National AAQS for ground-level ozone, lowering the primary and secondary ozone standard levels to 70 parts per billion (ppb) (2015 Ozone National AAQS.). The SoCAB is currently classified as an "extreme" nonattainment for the 2015 Ozone National AAQS. Meeting the 2015 federal ozone standard requires reducing NO_x emissions, the key pollutant that creates ozone, by 67 percent more than is required by adopted rules and regulations in 2037. The only way to achieve the required NO_x reductions is through extensive use of zero emission (ZE) technologies across all stationary and mobile sources. South Coast AQMD's primary authority is over stationary sources which account for approximately 20 percent of NO_x emissions. The overwhelming majority of NO_x emissions are from heavy-duty trucks, ships and other State and federally regulated mobile sources that are mostly beyond the South Coast AQMD's control. The region will not meet the standard absent significant federal action. In addition to federal action, the 2022 AQMP requires substantial reliance on future deployment of advanced technologies to meet the standard. The control strategy for the 2022 AQMP includes aggressive new regulations and the development of incentive programs to support early deployment of advanced technologies. The two key areas for incentive programs are (1) promoting widespread deployment of available ZE and low-NO_x technologies and (2) developing new ZE and ultra-low NO_x technologies for use in cases where the technology is not currently available. South Coast AQMD is prioritizing distribution of incentive funding in Environmental Justice areas and seeking opportunities to focus benefits on the most disadvantaged communities (South Coast AQMD 2022).

Lead State Implementation Plan

In 2008, EPA designated the Los Angeles County portion of the SoCAB nonattainment under the federal lead (Pb) classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard. The rest of the SoCAB, outside the Los Angeles County nonattainment area remains in attainment of the new standard. On May 24, 2012, CARB approved the SIP revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to EPA for approval.

South Coast AQMD PM2.5 Redesignation Request and Maintenance Plan

In 1997, the EPA adopted the 24-hour fine $PM_{2.5}$ standard of 65 micrograms per cubic meter ($\mu g/m^3$). In 2006, this standard was lowered to a more health-protective level of 35 $\mu g/m^3$. The SoCAB is designated nonattainment for both the 65 and 35 $\mu g/m^3$ 24-hour $PM_{2.5}$ standards (24-hour $PM_{2.5}$ standards). In 2020, monitored data demonstrated that the SoCAB attained both 24-hour $PM_{2.5}$ standards. The South Coast AQMD has developed the 2021 Redesignation Request and Maintenance Plan for the 1997 and 2006 24-hour $PM_{2.5}$ Standards demonstrating that the SoCAB has met the requirements to be redesignated to attainment for the 24-hour $PM_{2.5}$ standards (South Coast AQMD 2021a).

AB 617, Community Air Protection Program

Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) requires local air districts to monitor and implement air pollution control strategies that reduce localized air pollution in communities that bear the greatest burdens. In response to AB 617, CARB has established the Community Air Protection Program.

Air districts are required to host workshops to help identify disadvantaged communities disproportionately affected by poor air quality. Once the criteria for identifying the highest priority locations have been identified and the communities have been selected, new community monitoring systems would be installed to track and monitor community-specific air pollution goals. In 2018 CARB prepared an air monitoring plan (Community Air Protection Blueprint), that evaluates the availability and effectiveness of air monitoring technologies and existing community air monitoring networks. Under AB 617, the Blueprint is required to be updated every five years.

Under AB 617, CARB is also required to prepare a statewide strategy to reduce TACs and criteria pollutants in impacted communities; provide a statewide clearinghouse for best available retrofit control technology; adopt new rules requiring the latest best available retrofit control technology for all criteria pollutants for which an area has not achieved attainment of California AAQS; and provide uniform, statewide reporting of emissions inventories. Air districts are required to adopt a community emissions reduction program to achieve reductions for the communities impacted by air pollution that CARB identifies.

1.1.2 Existing Conditions

CLIMATE/METEOROLOGY

South Coast Air Basin

The project site lies in the South Coast Air Basin (SoCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (South Coast AQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. In Cherry Valley, the lowest average temperature is reported at 38°F in December, and the highest average temperature is 92°F in August. Rainfall averages 1.7 inches in February (Weatherspark 2026).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth’s surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the “ocean effect” is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the (South Coast AQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (South Coast AQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (South Coast AQMD 2005).

AREA DESIGNATIONS

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- ***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 SoCAB is shown in Table 3, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*.

Table 3 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM_{10}	Serious Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment [1]
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only) [2]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2025a.

1 The SoCAB is pending a resignation request from nonattainment to attainment for the 24-hour federal $PM_{2.5}$ standards. The 2021 $PM_{2.5}$ Redesignation Request and Maintenance Plan demonstrates that the South Coast meets the requirements of the CAA to allow US EPA to redesignate the SoCAB to attainment for the 65 $\mu g/m^3$ and 35 $\mu g/m^3$ 24-hour $PM_{2.5}$ standards. CARB submitted the 2021 $PM_{2.5}$ Redesignation Request to the US EPA as a revision to the California SIP (CARB 2021).

2 In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas for lead in the SoCAB are unclassified. However, lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011 (South Coast AQMD 2012). CARB's SIP revision was submitted to the US EPA for approval.

EXISTING AMBIENT AIR QUALITY

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the South Coast AQMD. The project site is located within Source Receptor Area (SRA) 29: Banning Pass Area. The air quality monitoring station closest to the proposed project is the Redlands-Dearborn Monitoring Station, which is one of the monitoring stations South Coast AQMD operates and maintains within the SoCAB.[7] Data from this station includes O_3, and PM_{10}. Data from the San Bernardino-4th Street Monitoring Station is used for $PM_{2.5}$, and NO_2. Table 4, *Ambient Air Quality Monitoring Summary,* shows rare violations of the state and federal O_3 standards, state PM_{10} standards, and federal $PM_{2.5}$ standards in the last three years.

Table 4 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations [1,2]		
	2022	2023	2024
Ozone (O_3)			
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	63	54	83
State & Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	106	83	114
Max. 1-Hour Conc. (ppm)	0.135	0.143	0.147
Max. 8-Hour Conc. (ppm)	0.109	0.118	0.131
Nitrogen Dioxide (NO_2)			
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	3
Max. 1-Hour Conc. (ppb)	0.052.6	0.056	0.0591
Coarse Particulates (PM_{10})			
State 24-Hour > 50 µg/m^3 (days exceed threshold)	0	0	0
Federal 24-Hour > 150 µg/m^3 (days exceed threshold)	0	0	0
Max. 24-Hour Conc. (µg/m^3)	50.5	49.4	71.3
Fine Particulates ($PM_{2.5}$)			
Federal 24-Hour > 35 µg/m^3 (days exceed threshold)	2	1	4
Max. 24-Hour Conc. (µg/m^3)	40.1	52.9	66.7

Source: CARB 2026d.

Notes: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; * = Data not available

1 Data for O_3 and PM_{10} from Redlands-Dearborn Monitoring Station. $PM_{2.5}$, and NO_2 from San Bernardino-4th Street Monitoring Station.

2 Most recent data available as of January 2026.

[7] Locations of the SRAs and monitoring stations are shown here: http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf.

MULTIPLE AIR TOXICS EXPOSURE STUDY V

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In April 2021, South Coast AQMD released the latest update to the MATES study, MATES V. The first MATES analysis, MATES I, began in 1986 but was limited because of the technology available at the time. Conducted in 1998, MATES II was the first MATES iteration to include a comprehensive monitoring program, an air toxics emissions inventory, and a modeling component. MATES III was conducted in 2004 to 2006, with MATES IV following in 2012 to 2013.

MATES V uses measurements taken during 2018 and 2019, with a comprehensive modeling analysis and emissions inventory based on 2018 data. The previous MATES studies quantified the cancer risks based on the inhalation pathway only. MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic noncancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazards Assessment (OEHHA) and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time.

The MATES V study showed that cancer risk in the SoCAB decreased to 454 in a million from 997 in a million in the MATES IV study. Overall, air toxics cancer risk in the SoCAB decreased by 54 percent since 2012 when MATES IV was conducted. MATES V showed the highest risk locations near the Los Angeles International Airport and the Ports of Long Beach and Los Angeles. Diesel particulate matter continues to be the major contributor to air toxics cancer risk (approximately 72 percent of the total cancer risk). Goods movement and transportation corridors have the highest cancer risk. Transportation sources account for 88 percent of carcinogenic air toxics emissions, and the remainder is from stationary sources, which include large industrial operations such as refineries and power plants as well as smaller businesses such as gas stations and chrome-plating facilities. (South Coast AQMD 2021b).

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 project site are the residences to the south and west of the project site, in addition to onsite receptors of Troy High School.

1.1.3 Thresholds of Significance

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in South Coast AQMD's *CEQA Air Quality Handbook* and the significance thresholds on South Coast AQMD's website (South Coast AQMD 1993). CEQA allows 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. South Coast AQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

REGIONAL SIGNIFICANCE THRESHOLDS

The South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5, *South Coast AQMD Significance Thresholds*, lists South Coast AQMD's regional significance thresholds that are applicable for all projects uniformly regardless of size or scope. There is growing evidence that although ultrafine particulates contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the US EPA or CARB have not yet adopted AAQS to regulate ultrafine particulates; therefore, South Coast AQMD has not developed thresholds for them.

Table 5 South Coast AQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: South Coast AQMD 2023.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Linked to increased cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)
- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Linked to lower birth weight in newborns ($PM_{2.5}$) (South Coast AQMD 2015a)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of $PM_{2.5}$ is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists responsible for a landmark children's health study found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015b).

South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SoCAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS. Mass emissions thresholds shown in Table 4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. These thresholds are based on the trigger levels for the federal New Source Review Program, which was created to ensure projects are consistent with attainment of health-based federal AAQS. Regional emissions from a single project do not trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed previously. Projects that do not exceed the South Coast AQMD regional significance thresholds in Table 4 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

If projects exceed the emissions levels presented in Table 4, then those emissions would cumulatively contribute to the nonattainment status of the air basin and would contribute to elevating health effects associated with these criteria air pollutants. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would contribute to reducing possible health effects related to criteria air pollutants. However, for projects that exceed the emissions in Table 4, it is speculative to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment, because mass emissions are not correlated with concentrations of emissions or how many additional individuals in the air basin would be affected by the health effects cited previously.

South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health to address the issue raised in *Sierra Club v. County of Fresno* (Friant Ranch, L.P.) (2018) 6 Cal.5th 502, Case No. S21978. South Coast AQMD currently does not have methodologies that would provide the City with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions.[8] Ozone concentrations are dependent on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level ozone concentrations in relation to the National and California AAQS, and the absence of modeling tools that could provide statistically valid data and meaningful additional information regarding health effects from criteria air pollutants generated by individual projects, it is not possible to link specific health risks to the magnitude of emissions exceeding the significance thresholds. However, if a project in the SoCAB exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standards are met in the SoCAB.

CO HOTSPOTS

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is

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[8] In April 2019, the Sacramento Metropolitan Air Quality Management District (SMAQMD) published an Interim Recommendation on implementing Sierra Club v. County of Fresno (2018) 6 Cal.5th 502 ("Friant Ranch") in the review and analysis of the proposed project under CEQA in Sacramento County. Consistent with the expert opinions submitted to the court in Friant Ranch by the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast AQMD, the SMAQMD guidance confirms the absence of an acceptable or reliable quantitative methodology that would correlate the expected criteria air pollutant emissions of projects to likely health consequences for people from project-generated criteria air pollutant emissions. The SMAQMD guidance explains that while it is in the process of developing a methodology to assess these impacts, lead agencies should follow the Friant Court's advice to explain in meaningful detail why this analysis is not yet feasible. Since this interim memorandum SMAQMD has provided methodology to address health impacts. However, a similar analysis is not available for projects within the South Coast AQMD region.

typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for the attainment by the South Coast AQMD for busiest intersections in Los Angeles during the peak morning and afternoon periods plan did not predict a violation of CO standards.[9] As identified in the South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. Since South Coast AQMD does not currently have an adopted CO hotspot screening criteria, Bay Area Air District’s recommended threshold was used in this analysis. 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 (Bay Area Air District 2023).

LOCALIZED SIGNIFICANCE THRESHOLDS

The South Coast AQMD developed LSTs for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at the project site (offsite mobile-source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS and are shown in Table 6, *South Coast AQMD Localized Significance Thresholds*.

[9] The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

Table 6 South Coast AQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (South Coast AQMD) [1]	10.4 $\mu g/m^3$
24-Hour $PM_{2.5}$ Standard – Construction (South Coast AQMD) [1]	10.4 $\mu g/m^3$
24-Hour PM_{10} Standard – Operation (South Coast AQMD) [1]	2.5 $\mu g/m^3$
24-Hour $PM_{2.5}$ Standard – Operation (South Coast AQMD) [1]	2.5 $\mu g/m^3$

Source: South Coast AQMD 2023.

ppm – parts per million; $\mu g/m^3$ – micrograms per cubic meter

1 Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the levels shown in Table 5 for projects under 5-acres. These “screening-level” LSTs tables are the localized significance thresholds for all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.

In accordance with South Coast AQMD’s LST methodology, the screening-level construction LSTs are based on the acreage disturbed per day based on equipment use and SRA. The screening-level construction LSTs for the project site in SRA 29 are shown in Table 7, *South Coast AQMD Screening-Level Localized Significance Thresholds,* for sensitive receptors within minimum reference distance of 82 feet (25 meters) for NO_X, CO, PM_{10} and $PM_{2.5}$.

Table 7 South Coast AQMD Screening-Level Localized Significance Thresholds

Acreage Disturbed	Threshold (lbs/day)[1]			
	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
1.31 Acre Disturbed Per Day	117	1,169	7	5
3.5 Acre Disturbed Per Day	193	2,179	16	9
4.0 Acre Disturbed Per Day	207	2,392	17	9

Source: South Coast AQMD 2008, 2011, and 2023a.

1 LSTs are based on sensitive receptors within 82 feet (25 meters) for NO_X, CO, PM_{10} and $PM_{2.5}$.

HEALTH RISK

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 8, *South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The type of land uses that typically generate substantial quantities of criteria air pollutants and TACs from operations include industrial (stationary sources) and warehousing (truck idling) land uses (CARB 2005). As beach uses do not use substantial quantities of TACs, these thresholds are typically applied to new industrial projects only. Additionally, the purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478)).

Table 8 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases

Source: South Coast AQMD 2023.

Draft Operational Cumulative Health Risk Thresholds

South Coast AQMD initiated a Working Group to identify cumulative health risk thresholds for development projects in order to address community concerns of health risk impacts of new projects being developed in areas where there is a higher pollution burden. The cumulative health risk threshold methodology first utilizes a screening approach to identify whether projects can qualitatively address cumulative health risk or quantitatively address health risk:

- **Low Cancer Risk Project Types**: Residential, commercial, recreational, educational, and retail.
- **Medium Cancer Risk Project Types**: Truck yards, gas stations, small industrial projects, and linear projects.
- **High Cancer Risk Project Types**. Industrial, major transportation projects (airports, port, railyard, bus/train station), and major planning projects.

For projects with low and medium cancer risks, like the proposed project, a quantitative analysis is not warranted. For projects with the potential to cause high cancer risk impacts, a quantitative is recommended. The initial cumulative threshold is based on MATES V cancer risk percentile, which identifies a gradient of the effects of air pollution on cancer risk in the South Coast AQMD Region. If the project triggers additional criteria, then the initial cumulative threshold should be adjusted as shown in Table 9, *MATES V Adjusted Cumulative Significant Cancer Risk Thresholds*.

Table 9 MATES V Adjusted Cumulative Significant Cancer Risk Thresholds

Project's Background MATES V Cancer Risk[1]	Revised Initial Thresholds based on Cancer Risk
Most Stringent	≥ 1 in 1 million
>90th Percentile	≥ 3 in 1 million
90th Percentile to 50th Percentile	≥ 5 in 1 million
50th Percentile to 30th Percentile	≥ 7 in 1 million
< 30th Percentile	≥ 10 in 1 million

Source: South Coast AQMD 2024.
1 Most current MATES V is based on 2018 data.

As stated previously, South Coast AQMD has identified that the initial thresholds in Table 9 should be adjusted if any of the following criteria apply:

- **Criteria #1 – Post-2018 Projects with High Volume Diesel Fueled Trucks**. Post-2018 projects are not accounted for in MATES V. Therefore, if new warehousing projects along the truck route[10] have been constructed, then the initial thresholds will be adjusted to the next, more stringent level (e.g., cumulative threshold will adjust from 10 in one million to 7 in one million).
- **Criteria #2 – Health Sensitive Population**. If the project site is within SB 535 or AB 617 community, then the initial thresholds will be adjusted to the next, more stringent level (e.g., cumulative threshold will adjust from 7 in one million to 5 in one million).

[10] Truck route is from the project site to major freeway, within certain distance to sensitive receptors, add all diesel-fueled trucks from post-2018 projects.

This type of project would be considered low to medium cancer risks; thus, an operational cancer risk analysis for the proposed project would not be warranted.

1.2 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 GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[11] 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).[12] 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.
- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.
- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting

[11] 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.

[12] 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.

substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

- ***Chlorofluorocarbons (CFCs***) are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
- ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.
- ***Sulfur Hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
- ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.
- ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; US EPA 2025b).

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 10, *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.[13]

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

Table 10 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.

1.2.1 GHG Regulatory Setting

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The US 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 (US EPA 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 South Coast AQMD 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.

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has developed regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy (ACE) rule, which became effective on August 19, 2019. The ACE rule was crafted under the direction of President Trump's Energy Independence EO. It officially rescinded the Clean Power Plan rule issued during the Obama Administration and set emissions guidelines for states in developing plans to limit CO_2 emissions from coal-fired power plants. The Affordable Clean Energy rule was vacated by the United States Court of Appeals for the District of Columbia Circuit on January 19, 2021. The Biden Administration is assessing options on potential future regulations.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in EO S-03-05 and EO B-30-15, EO B-55-18, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32), and 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)

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 EO S-03-05. CARB prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

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 11, *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 11 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).

Priority Area	Priority Strategies
	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 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).

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan (RTP/SCS). For the SCAG region, the 2024-2050 RTP/SCS, Connect SoCal, was adopted on April 4, 2024, and is an update to the 2020-2045 RTP/SCS. In general, the RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through the horizon year 2050 (SCAG 2024). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. It also forecasts that implementation of the plan will reduce VMT per capita in year 2050 by 6.3 percent compared to baseline conditions for that year. Connect SoCal includes a "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2024).

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. (See also the discussion on the update to the Corporate Average Fuel Economy standards at the beginning of this Section 5.5.2 under “Federal.”) 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.

Energy Efficiency Regulations

California Building Energy Code: Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2024 (California Code of Regulations [CCR] Title 24, Part 6). Title 24 Part 6 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.

In 2024, the CEC adopted the 2025 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission. The 2025 standards become effective and replace the existing 2022 standards on January 1, 2026. The 2025 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.[14] The Building Energy and Efficiency Standards and CALGreen undergo a triennial update with a goal to achieve zero net energy for new buildings by 2030.

California Building Code: Green Building Standards (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.[15] The mandatory provisions of CALGreen became effective January 1, 2011, and were most recently updated in 2024 (2025 CALGreen update). The 2025 CALGreen update becomes effective on January 1, 2026, and provides updates to the residential and non-residential voluntary measures.

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–

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

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

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 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. South Coast AQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these charbroilers by over 80 percent (CARB 2017). Additionally, South Coast AQMD Rule 445 limits installation of new fireplaces in the South Coast Air Basin.

CALIFORNIA'S GHG SOURCES AND RELATIVE CONTRIBUTION

In 2024, the statewide GHG emissions inventory was updated for 2000 to 2022 emissions using the GWPs in IPCC's AR4 and reported that California produced 371.1 $MMTCO_2e$ GHG emissions in 2022 (2.4 percent lower than 2021 levels). The 2022 emissions data shows that California is continuing its established long-term trend of GHG emissions declines, despite the anomalous emissions trends from 2019 through 2021, due in large part to the impacts of the COVID-19 pandemic. 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, the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross state product (GSP)) is declining (CARB 2024b).

California's transportation sector was the single-largest generator of GHG emissions, producing 37.7 percent of the state's total emissions. Industrial sector emissions made up 19.6 percent, and electric power generation made up 16.1 percent of the state's emissions inventory. Other major sectors of GHG emissions include residential and commercial (10.6 percent), agriculture and forestry (8.0 percent), high GWP (5.7 percent), and recycling and waste (2.2 percent).

Emissions from transportation sector decreased compared to 2021, primarily due to a greater share of fuels used for on-road transportation being produced from non-fossil resources. Industrial sector decreases from 2021 to 2022, most notably in the oil and gas production sector. Electricity emissions also decreased compared to 2021 from the continued growth of in-state solar generation and increases to in-state hydropower and imported wind power. High-GWP gases continue to replace ozone-depleting substances (ODS) being phased out under the 1987 Montreal Protocol and emissions from this sector have been stable from 2020 to 2022 (CARB 2024b).

1.2.2 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.[16]

SOUTH COAST AQMD WORKING GROUP

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD convened a GHG CEQA Significance Threshold Working Group (Working Group). The South Coast AQMD Working Group (Meeting No. 15) identified a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency (South Coast AQMD 2010):

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.
- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD requires an assessment of GHG emissions. The South Coast AQMD Working Group identified a screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. These bright-line thresholds are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions:
- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

  The South Coast AQMD Working Group has identified an efficiency target for projects that exceed the screening threshold of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan level projects

[16] 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.

(e.g., program-level projects such as general plans) for the year 2020.[17] The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.

The bright-line screening-level criterion of 3,000 $MTCO_2e$/yr is used as the significance threshold for this project. Therefore, if the project operation-phase emissions exceed the 3,000 $MTCO_2e$/yr threshold, GHG emissions would be considered potentially significant in the absence of mitigation measures.

[17] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

1.3 REFERENCES

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CalEEMod Inputs- New TK-8 School at Brookside and Highland Springs, Construction

Name:	New TK-8 School at Brookside and Highland Springs
Project Number:	BEA-12
Project Location:	40733 Brookside Ave, Cherry Valley, CA 92223
County/Air Basin:	Riverside-South Coast
Climate Zone:	10
Land Use Setting:	Rural
Operational Year:	2027
Gas Utility:	Southern California Gas
Electric Utility:	Southern California Edison
Air Basin:	South Coast Air Basin
Air District:	South Coast AQMD
SRA:	29-Banning Pass Area

Project Site Acreage	37.46
Disturbed Site Acreage	35.96

Project Components	SQFT	Building Footprint	Acres	Number of Stories
Construction				
Building A	23,040	23,040	0.53	1
Building B	14,941	14,941	0.34	1
Building C	12,297	12,297	0.28	1
Building D	22,850	22,850	0.52	1
Building E	20,060	2,060	0.05	1
Building F	9,423	9,423	0.22	1
Surface Work				**Number of Stalls**
Landscaping	649,401	NA	14.91	NA
Non-Parking Asphalt Surfaces	227,627	NA	5.23	NA
Non-Asphalt Surfaces	172,391	NA	3.96	NA
Parking Lot 1	31,200	NA	0.72	NA
Parking Lot 2	48,000	NA	1.10	NA
Parking Lot 3	93,000	NA	2.13	NA
Drainage Area (no development)	65,340	NA	1.50	NA
TOTAL	**1,389,570**		**31.49**	
Extra Non-Asphalt Surfaces	260,188		5.97	
TOTAL	**1,649,758**		**37.46**	

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage[1]	Building Square Feet	Landscaped Area
Education	Junior High School	102.611	1000 sqft	16.8506	102,611	649,401
Parking	Other Asphalt Surfaces	227.627	1000 sqft	5.23	227,627	-
Parking	Other Non-Asphalt Surfaces	432.579	1000 sqft	9.93	432,579	-

Parking	Parking Lot	172.200	1000 sqft	3.95	172,200	-
				35.96		

Notes

[1] 1.5 acres of the 37.46-acre site would remain undeveloped.

Architectural Coating

	Percent Painted	
Interior Painted:	100%	
Exterior Painted:	100%	
Rule 1113		
Interior Paint VOC content:	50	grams per liter
Exterior Paint VOC content:	50	grams per liter
Parking Paint VOC content:	100	grams per liter

Structures	Land Use Square Feet	CalEEMod Factor[2]	Total Paintable Surface Area	Paintable Interior Area[1]	Paintable Exterior Area[1]
Non-Residential Structures					
School Buildings	102,611	2.0	205,222	153,917	51,306
				153,917	**51,306**
Parking					
Parking Area	832,406	6%	49,944	-	49,944
					49,944

Notes

[1] CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

[2] The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the

[3] Assumes that all parking and non-parking asphalt will be striped. CalEEMod methodology assumes 6% of surface area is striped.

Dust Control Measures

SCAQMD Rule 403			
Water Unpaved Roads	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	25	mph
SCAQMD Rule 1186			
	Clean Paved Road	9	% PM Reduction

Southern California Edison Carbon Intensity Factors

	Forecasted Factors 2029[1]	
CO_2:	346.20	pounds per megawatt hour
CH_4:	0.033	pound per megawatt hour
N_2O:	0.004	pound per megawatt hour

Notes

[1] CalEEMod defaults used.

Construction Activities and Schedule Assumptions

* based on construction timeframe provided by District: January 2028 - June 2029

CalEEMod Default Construction Schedule				
Construction Activities	**Phase Type**	**Start Date**	**End Date**	**CalEEMod Duration (Workday)**
Demolition	Demolition	1/3/2028	3/13/2028	51
Site Preparation	Site Preparation	3/14/2028	4/25/2028	31
Grading	Grading	4/26/2028	8/9/2028	76
Building Construction	Building Construction	8/10/2028	6/12/2031	741
Paving	Paving	6/13/2031	8/29/2031	56
Architectural Coating	Architectural Coating	8/30/2031	11/15/2031	55

Notes

[1] Assume Building Construction, Paving, and Architectural Coating phases overlap for conservative estimate.

Normalization Calculations

CalEEMod Defaults Construction Duration	
1412	days of construction
3.87	years of construction
46.42	months of construction

Assumed Construction Duration	
1/3/2028	6/3/2029
517	days
17.00	months

Norm Factor: 0.37

Construction Activities	Normalized Days	Redistributed Days[1]	Adjusted Workdays
Demolition	19	--	0
Site Preparation	11	2	14
Grading	28	5	33
Building Construction	271	52	323
Paving	21	10	31
Architectural Coating	20	10	31

Notes

[1] Accounts for construction days removed from non-relevant activities (demolition) and overlapping activities (paving and architectural coating)

New Construction Schedule (CalEEMod)

Construction Activities	Start Date	End Date	CalEEMod Duration (Workday)
Site Preparation	1/3/2028	1/20/2028	14
Grading	1/21/2028	3/7/2028	33
Building Construction	3/8/2028	6/3/2029	323
Paving	4/20/2029	6/3/2029	31
Architectural Coating	4/20/2029	6/3/2029	31

Overlapping Construction Schedule (CalEEMod)

Construction Activities	Start Date	End Date	CalEEMod Duration (Workday)
Site Preparation	1/3/2028	1/20/2028	14
Grading	1/21/2028	3/7/2028	33
Building Construction	3/8/2028	4/19/2029	292
Building Construction, Paving, and Architectural Coating	4/20/2029	6/3/2029	31

CalEEMod Construction Off-Road Equipment Inputs

Construction Equipment Details					
Equipment	**# of Equipment**	**hr/day**	**hp**	**load factor**	**total trips per day**
Site Preperation					
Rubber Tired Dozers	3	8	367	0.4	
Tractors/Loaders/Backhoes	4	8	84	0.37	
Worker Trips					18
Vendor Trips					1
Hauling Trips					0
Water Trucks		Acres Disturbed:	3.5		18
		Onsite Travel (mi/day)	1.44		
Grading					
Excavators	2	8	36	0.38	
Graders	1	8	148	0.41	
Rubber Tired Dozers	1	8	367	0.4	
Scrapers	2	8	423	0.48	
Tractors/Loaders/Backhoes	2	8	84	0.37	
Worker Trips					20
Vendor Trips					3
Hauling Trips					0
Water Trucks		Acres Disturbed:	4		20
		Onsite Travel (mi/day)	1.65		
Building Construction					
Cranes	1	7	367	0.29	
Forklifts	3	8	82	0.2	
Generator Sets	1	8	14	0.74	
Tractors/Loaders/Backhoes	3	7	84	0.37	
Welders	1	8	46	0.45	
Worker Trips					43
Vendor Trips					17
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
Hauling Trips					0
Architectural Coating					
Air Compressors	1	6	37	0.48	
Worker Trips					9
Vendor Trips					0
Hauling Trips					0

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. 2024, 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- New TK-8 School at Brookside and Highland Springs, Operation

Name:	New TK-8 School at Brookside and Highland Springs
Project Number:	BEA-12
Project Location:	40733 Brookside Ave, Cherry Valley, CA 92223
County/Air Basin:	Riverside-South Coast
Climate Zone:	10
Land Use Setting:	Rural
Operational Year:	2027
Gas Utility:	Southern California Gas
Electric Utility:	Southern California Edison
Air Basin:	South Coast Air Basin
Air District:	South Coast AQMD
SRA:	29-Banning Pass Area

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Building Square Feet	Landscaped Area
Education	Junior High School	103	1000 sqft	16.85	102,611	649,401
Parking	Other Asphalt Surfaces	228	1000 sqft	5.23	227,627	-
Parking	Other Non-Asphalt Surfaces	433	1000 sqft	9.93	432,579	-
Parking	Parking Lot	172	1000 sqft	3.95	172,200	-
				35.96		

Trips (Average Daily)

Land Use Type	Average Daily Trips	CalEEMod Trip Rate	Saturday Trips	CalEEMod Trip Rate	Sunday Trips	CalEEMod Trip Rate
Junior High School	2,724	**26.54686**	0	**0.00**	0	**0.00**

Source: DJ&A, P.C. 2026,February 19. TK-8 School: Brookside and Highland Springs – Transportation Study.

Purpose and Percentages (Modified) [1]

Land Use Type	Non Res H-W Trip (%)	Non Res W-O Trip (%)	Non Res O-O Trip (%)
Junior High School (default)	41.04	6.00	52.96
Junior High School (modified)	10.00	6.00	84.00

Source: National Center for Education Statistics (NCES). Table 213.50, Staff, enrollment, and pupil/staff ratios in public

Notes

[1] Modified trip percentages from ratio of approximately 10.2 to 10.5 students to staff based on information from NCES. H-W trips represent staff trips and O-O represent student trips.

Water Use [1,2]

	Gallons/Day	Gallons/Year
Indoor	3,694	`
Outdoor	1,607	586,555
	5,301	**586,555**

Source

[1] See Section IX, Utilities and Service Systems, of the IS/MND

[2] Assumes 100% aerobic treatment

Solid Waste [1]

Land Use	Total Solid Waste (tons/day)	Total Solid Waste (tons/year)
Junior High School	0.34	124.10

Source

[1] See Section IX, Utilities and Service Systems, of the IS/MND

Electricity (CalEEMod Defaults)

Land Use Subtype	Total Annual Electricity Consumption (kWh/year)	Total Annual Natural Gas Consumption (kBTU/year)	Title-24 Electricity Energy Intensity (kWhr/size/year)*	Title-24 Natural Gas Energy Intensity (KBTU/size/year)*	Nontitle-24 Electricity Energy Intensity (kWhr/size/year)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/year)
Junior High School	667,800.36	2,456,552.20	**577,212.04**	**1,417,790.59**	90,588.32	1,038,761.61
Parking Lot	150,847.20	0.00	**150,847.20**	**0.00**	0.00	0.00
Total	**818,647.56**	**2,456,552.20**				

Architectural Coating (see construction land use tab)

Southern California Edison Carbon Intensity Factors

	Forecasted Factors 2027[1]	
CO_2:	346.20	pounds per megawatt hour
CH_4:	0.033	pound per megawatt hour
N_2O:	0.004	pound per megawatt hour

Notes

[1] CalEEMod defaults used.

Changes to the CalEEMod Defaults - Fleet Mix 2029

Trips 2,724

Default	HHD	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHD	OBUS	SBUS	UBUS
FleetMix (Model Default Percentage	1.685409062	49.41136241	3.529589623	21.53589875	2.993452176	0.857844669	2.22274065	15.49771279	0.509016309	1.529825479	0.057545898	0.131961401	0.037639201
FleetMix (Converted)	0.016854091	0.494113624	0.035295896	0.215358987	0.029934522	0.008578447	0.022227407	0.154977128	0.005090163	0.015298255	0.000575459	0.001319614	0.000376392
Trips	46	1,346	96	587	82	23	61	422	14	42	2	4	1
Percent		77%			8%			15%					
without buses/MH	0.016854	0.494114	0.035296	0.215359	0.029935	0.008578	0.022227	0.154977	0	0.015298	0	0.001320	0
Percent		77%			7%			15%					
Adjusted without buses/MH	0.018269	0.494114	0.035296	0.215359	0.032447	0.009298	0.024093	0.154977	0	0.016582	0	0.001430	0
Percent adjusted		77%			8%			15%					
Assumed Mix		97.0%			1.00%			2.00%					
Adjusted with Assumed Mix Percentage	0.002341	0.623376	0.044529	0.271698	0.004158	0.001192	0.030396	0.020000	0.000000	0.002125	0.000000	0.000183	0.000000
Adjusted CalEEMod Input	0.234134	62.337648	4.452950	27.169809	0.415844	0.119170	3.039593	2.000000	0.000000	0.212520	0.000000	0.018332	0.000000
Percent Check:		97%			1%			2%					
Trips	6	1,698	121	740	11	3	83	54	0	6	0	0	0
		2,642			*158*			*54*					

Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.

New TK-8 School at Brookside and Highland Springs Custom Report

Table of Contents

8.4. Construction

8.4.1. Construction Phases

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	New TK-8 School at Brookside and Highland Springs
Construction Start Date	1/3/2028
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50000
Precipitation (days)	19.2000
Location	40733 Brookside Ave, Cherry Valley, CA 92223, USA
County	Riverside-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5630
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.37

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
Junior High School	102.611	1000sqft	16.8506	102,611	649,401	649,401	—	—

Other Asphalt Surfaces	227.627	1000sqft	5.22560	0.00000	0.00000	—	—	—
Other Non-Asphalt Surfaces	432.579	1000sqft	9.93065	0.00000	0.00000	—	—	—
Parking Lot	172.200	1000sqft	3.95317	0.00000	0.00000	—	—	—

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.	41.2926	40.9371	16.5675	27.9642	0.04330	0.53599	1.03304	1.56903	0.49379	0.24889	0.74267	—	5,440.74	5,440.74	0.18154	0.14348	3.39489	5,491.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.70463	3.11182	28.1268	29.3673	0.06616	1.15240	8.59196	9.74436	1.06089	4.09190	5.15280	—	7,514.23	7,514.23	0.28240	0.16591	0.07203	7,570.79
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.79361	3.71335	8.97689	12.6014	0.02393	0.31431	1.15510	1.46941	0.28962	0.40050	0.69012	—	2,911.64	2,911.64	0.10021	0.08713	0.82459	2,940.93
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.69233	0.67769	1.63828	2.29976	0.00437	0.05736	0.21081	0.26817	0.05286	0.07309	0.12595	—	482.055	482.055	0.01659	0.01442	0.13652	486.904

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.39493	1.16911	9.56818	15.7625	0.02718	0.30780	0.70721	1.01501	0.28378	0.17179	0.45558	—	3,455.65	3,455.65	0.11176	0.11433	2.77567	3,495.29
2029	41.2926	40.9371	16.5675	27.9642	0.04330	0.53599	1.03304	1.56903	0.49379	0.24889	0.74267	—	5,440.74	5,440.74	0.18154	0.14348	3.39489	5,491.43
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	3.70463	3.11182	28.1268	29.3673	0.06616	1.15240	8.59196	9.74436	1.06089	4.09190	5.15280	—	7,514.23	7,514.23	0.28240	0.16591	0.07203	7,570.79
2029	1.32901	1.10834	9.22704	14.9337	0.02718	0.28321	0.70721	0.99041	0.26115	0.17179	0.43295	—	3,387.62	3,387.62	0.11174	0.11054	0.06442	3,423.42
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.26149	1.06520	8.97689	12.6014	0.02393	0.31431	1.15510	1.46941	0.28962	0.40050	0.69012	—	2,911.64	2,911.64	0.10021	0.08713	0.82459	2,940.93
2029	3.79361	3.71335	3.40949	5.56331	0.00956	0.10682	0.23792	0.34474	0.09846	0.05760	0.15606	—	1,191.62	1,191.62	0.03973	0.03611	0.35621	1,203.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.23022	0.19440	1.63828	2.29976	0.00437	0.05736	0.21081	0.26817	0.05286	0.07309	0.12595	—	482.055	482.055	0.01659	0.01442	0.13652	486.904
2029	0.69233	0.67769	0.62223	1.01530	0.00174	0.01949	0.04342	0.06292	0.01797	0.01051	0.02848	—	197.286	197.286	0.00658	0.00598	0.05898	199.292

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.	14.7635	13.6080	6.59485	126.951	0.27535	0.17588	29.6100	29.7859	0.16506	7.47639	7.64144	75.9460	29,182.0	29,257.9	8.70403	0.70982	70.1648	29,757.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.5726	12.4405	7.15049	102.242	0.25412	0.16798	29.6247	29.7927	0.15909	7.48038	7.63948	75.9460	27,067.5	27,143.5	8.77037	0.75780	2.20553	27,590.8

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.9066	10.0722	5.44519	78.5467	0.18490	0.13973	20.8858	21.0256	0.13205	5.27423	5.40628	75.9460	20,022.2	20,098.1	8.45445	0.55333	21.9144	20,496.3
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.99046	1.83818	0.99375	14.3348	0.03374	0.02550	3.81166	3.83716	0.02410	0.96255	0.98665	12.5737	3,314.90	3,327.47	1.39973	0.09161	3.62818	3,393.39

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	11.3110	10.2530	5.89747	121.934	0.27112	0.11780	29.6100	29.7278	0.10892	7.47639	7.58531	—	27,471.0	27,471.0	0.94625	0.68784	69.7684	27,769.4
Area	3.37992	3.31867	0.03755	4.46279	0.00027	0.00793	—	0.00793	0.00599	—	0.00599	—	18.3516	18.3516	0.00077	0.00016	—	18.4178
Energy	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	1,563.76	1,563.76	0.14369	0.01045	—	1,570.47
Water	—	—	—	—	—	—	—	—	—	—	—	4.05464	128.834	132.888	0.42804	0.01137	—	146.976
Waste	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	14.7635	13.6080	6.59485	126.951	0.27535	0.17588	29.6100	29.7859	0.16506	7.47639	7.64144	75.9460	29,182.0	29,257.9	8.70403	0.70982	70.1648	29,757.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	10.9146	9.81871	6.49066	101.688	0.25016	0.11784	29.6247	29.7426	0.10895	7.48038	7.58933	—	25,374.9	25,374.9	1.01336	0.73598	1.80916	25,621.4
Area	2.58546	2.58546	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	1,563.76	1,563.76	0.14369	0.01045	—	1,570.47
Water	—	—	—	—	—	—	—	—	—	—	—	4.05464	128.834	132.888	0.42804	0.01137	—	146.976
Waste	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	13.5726	12.4405	7.15049	102.242	0.25412	0.16798	29.6247	29.7927	0.15909	7.48038	7.63948	75.9460	27,067.5	27,143.5	8.77037	0.75780	2.20553	27,590.8

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.70444	6.94829	4.75964	74.9357	0.18075	0.08415	20.8858	20.9700	0.07780	5.27423	5.35203	—	18,317.0	18,317.0	0.69691	0.53140	21.5180	18,514.3
Area	3.12961	3.08766	0.02572	3.05671	0.00018	0.00543	—	0.00543	0.00410	—	0.00410	—	12.5696	12.5696	0.00053	0.00011	—	12.6149
Energy	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	1,563.76	1,563.76	0.14369	0.01045	—	1,570.47
Water	—	—	—	—	—	—	—	—	—	—	—	4.05464	128.834	132.888	0.42804	0.01137	—	146.976
Waste	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	10.9066	10.0722	5.44519	78.5467	0.18490	0.13973	20.8858	21.0256	0.13205	5.27423	5.40628	75.9460	20,022.2	20,098.1	8.45445	0.55333	21.9144	20,496.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.40606	1.26806	0.86863	13.6758	0.03299	0.01536	3.81166	3.82702	0.01420	0.96255	0.97675	—	3,032.59	3,032.59	0.11538	0.08798	3.56256	3,065.25
Area	0.57115	0.56350	0.00469	0.55785	0.00003	0.00099	—	0.00099	0.00075	—	0.00075	—	2.08104	2.08104	0.00009	0.00002	—	2.08855
Energy	0.01325	0.00662	0.12042	0.10115	0.00072	0.00915	—	0.00915	0.00915	—	0.00915	—	258.899	258.899	0.02379	0.00173	—	260.009
Water	—	—	—	—	—	—	—	—	—	—	—	0.67129	21.3299	22.0012	0.07087	0.00188	—	24.3336
Waste	—	—	—	—	—	—	—	—	—	—	—	11.9024	0.00000	11.9024	1.18961	0.00000	—	41.6426
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06562	0.06562
Total	1.99046	1.83818	0.99375	14.3348	0.03374	0.02550	3.81166	3.83716	0.02410	0.96255	0.98665	12.5737	3,314.90	3,327.47	1.39973	0.09161	3.62818	3,393.39

3. Construction Emissions Details

3.1. Site Preparation (2028) - Unmitigated

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

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

Off-Road Equipment	3.61333	3.03620	27.4549	28.3524	0.04893	1.14375	—	1.14375	1.05225	—	1.05225	—	5,300.02	5,300.02	0.21499	0.04300	—	5,318.21
Dust From Material Movement	—	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—
Onsite truck	0.00116	0.00060	0.01861	0.01084	0.00005	0.00010	0.53443	0.53452	0.00010	0.05342	0.05352	—	6.11843	6.11843	0.00046	0.00097	0.00022	6.42002
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13859	0.11646	1.05306	1.08749	0.00188	0.04387	—	0.04387	0.04036	—	0.04036	—	203.289	203.289	0.00825	0.00165	—	203.986
Dust From Material Movement	—	—	—	—	—	—	0.29405	0.29405	—	0.15112	0.15112	—	—	—	—	—	—	—
Onsite truck	0.00005	0.00003	0.00070	0.00041	< 0.000005	< 0.000005	0.01942	0.01942	< 0.000005	0.00194	0.00195	—	0.23385	0.23385	0.00002	0.00004	0.00014	0.24555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02529	0.02125	0.19218	0.19847	0.00034	0.00801	—	0.00801	0.00737	—	0.00737	—	33.6567	33.6567	0.00137	0.00027	—	33.7723
Dust From Material Movement	—	—	—	—	—	—	0.05366	0.05366	—	0.02758	0.02758	—	—	—	—	—	—	—
Onsite truck	0.00001	< 0.000005	0.00013	0.00007	< 0.000005	< 0.000005	0.00354	0.00354	< 0.000005	0.00035	0.00035	—	0.03872	0.03872	< 0.000005	0.00001	0.00002	0.04065
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06559	0.06404	0.06829	0.81946	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	213.822	213.822	0.00309	0.00829	0.01715	216.388
Vendor	0.02455	0.01097	0.58501	0.18464	0.00427	0.00855	0.16256	0.17111	0.00855	0.04491	0.05346	—	549.199	549.199	0.00888	0.08411	0.03366	574.520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00250	0.00244	0.00262	0.03310	0.00000	0.00000	0.00867	0.00867	0.00000	0.00203	0.00203	—	8.30494	8.30494	0.00012	0.00032	0.01092	8.41363
Vendor	0.00096	0.00044	0.02256	0.00700	0.00016	0.00033	0.00617	0.00650	0.00033	0.00171	0.00203	—	21.0555	21.0555	0.00034	0.00323	0.02151	22.0470
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00046	0.00045	0.00048	0.00604	0.00000	0.00000	0.00158	0.00158	0.00000	0.00037	0.00037	—	1.37498	1.37498	0.00002	0.00005	0.00181	1.39297
Vendor	0.00017	0.00008	0.00412	0.00128	0.00003	0.00006	0.00113	0.00119	0.00006	0.00031	0.00037	—	3.48598	3.48598	0.00006	0.00053	0.00356	3.65013
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.42509	2.87803	24.3289	27.1688	0.06093	0.98510	—	0.98510	0.90629	—	0.90629	—	6,598.26	6,598.26	0.26765	0.05353	—	6,620.90

Dust From Material Movement	—	—	—	—	—	—	3.58940	3.58940	—	1.42496	1.42496	—	—	—	—	—	—	—
Onsite truck	0.00118	0.00061	0.01923	0.01091	0.00006	0.00011	0.61236	0.61247	0.00011	0.06121	0.06132	—	6.78407	6.78407	0.00047	0.00108	0.00025	7.11766
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30967	0.26021	2.19960	2.45636	0.00551	0.08906	—	0.08906	0.08194	—	0.08194	—	596.555	596.555	0.02420	0.00484	—	598.602
Dust From Material Movement	—	—	—	—	—	—	0.32452	0.32452	—	0.12883	0.12883	—	—	—	—	—	—	—
Onsite truck	0.00011	0.00006	0.00170	0.00097	0.00001	0.00001	0.05245	0.05246	0.00001	0.00524	0.00525	—	0.61141	0.61141	0.00004	0.00010	0.00038	0.64192
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05651	0.04749	0.40143	0.44829	0.00101	0.01625	—	0.01625	0.01495	—	0.01495	—	98.7665	98.7665	0.00401	0.00080	—	99.1055
Dust From Material Movement	—	—	—	—	—	—	0.05923	0.05923	—	0.02351	0.02351	—	—	—	—	—	—	—
Onsite truck	0.00002	0.00001	0.00031	0.00018	< 0.000005	< 0.000005	0.00957	0.00957	< 0.000005	0.00096	0.00096	—	0.10123	0.10123	0.00001	0.00002	0.00006	0.10628
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07496	0.07319	0.07804	0.93652	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	244.368	244.368	0.00353	0.00948	0.01960	247.300

Vendor	0.02971	0.01329	0.70816	0.22351	0.00517	0.01034	0.19679	0.20713	0.01034	0.05437	0.06471	—	664.820	664.820	0.01075	0.10182	0.04075	695.472
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00674	0.00658	0.00706	0.08918	0.00000	0.00000	0.02334	0.02334	0.00000	0.00547	0.00547	—	22.3725	22.3725	0.00032	0.00086	0.02942	22.6653
Vendor	0.00273	0.00125	0.06437	0.01998	0.00047	0.00094	0.01761	0.01854	0.00094	0.00487	0.00580	—	60.0795	60.0795	0.00097	0.00921	0.06138	62.9084
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00123	0.00120	0.00129	0.01627	0.00000	0.00000	0.00426	0.00426	0.00000	0.00100	0.00100	—	3.70402	3.70402	0.00005	0.00014	0.00487	3.75250
Vendor	0.00050	0.00023	0.01175	0.00365	0.00009	0.00017	0.00321	0.00338	0.00017	0.00089	0.00106	—	9.94685	9.94685	0.00016	0.00152	0.01016	10.4152
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69327	0.58011	5.22223	7.56877	0.01369	0.17568	—	0.17568	0.16162	—	0.16162	—	1,402.82	1,402.82	0.05690	0.01138	—	1,407.63
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12652	0.10587	0.95306	1.38130	0.00250	0.03206	—	0.03206	0.02950	—	0.02950	—	232.252	232.252	0.00942	0.00188	—	233.049
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18765	0.16722	0.14869	2.66793	0.00000	0.00000	0.56331	0.56331	0.00000	0.13204	0.13204	—	572.453	572.453	0.00665	0.02043	1.62374	580.331
Vendor	0.02247	0.01046	0.49454	0.15936	0.00378	0.00756	0.14389	0.15146	0.00756	0.03976	0.04732	—	485.742	485.742	0.00786	0.07445	1.15192	509.276
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16152	0.15772	0.16817	2.01805	0.00000	0.00000	0.56331	0.56331	0.00000	0.13204	0.13204	—	526.571	526.571	0.00760	0.02043	0.04223	532.891
Vendor	0.02173	0.00971	0.51782	0.16344	0.00378	0.00756	0.14389	0.15146	0.00756	0.03976	0.04732	—	486.126	486.126	0.00786	0.07445	0.02980	508.539
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09395	0.09173	0.09840	1.24364	0.00000	0.00000	0.32555	0.32555	0.00000	0.07624	0.07624	—	312.001	312.001	0.00445	0.01195	0.41034	316.085
Vendor	0.01293	0.00590	0.30460	0.09455	0.00221	0.00443	0.08332	0.08775	0.00443	0.02304	0.02747	—	284.316	284.316	0.00460	0.04356	0.29049	297.703

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01715	0.01674	0.01796	0.22696	0.00000	0.00000	0.05941	0.05941	0.00000	0.01391	0.01391	—	51.6554	51.6554	0.00074	0.00198	0.06794	52.3315
Vendor	0.00236	0.00108	0.05559	0.01725	0.00040	0.00081	0.01521	0.01601	0.00081	0.00421	0.00501	—	47.0717	47.0717	0.00076	0.00721	0.04809	49.2881
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Building Construction (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15336	0.96514	8.58166	12.9012	0.02340	0.27564	—	0.27564	0.25359	—	0.25359	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15336	0.96514	8.58166	12.9012	0.02340	0.27564	—	0.27564	0.25359	—	0.25359	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34759	0.29086	2.58625	3.88804	0.00705	0.08307	—	0.08307	0.07642	—	0.07642	—	722.333	722.333	0.02930	0.00586	—	724.812

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06343	0.05308	0.47199	0.70957	0.00129	0.01516	—	0.01516	0.01395	—	0.01395	—	119.590	119.590	0.00485	0.00097	—	120.001
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16247	0.15962	0.12922	2.49263	0.00000	0.00000	0.56331	0.56331	0.00000	0.13204	0.13204	—	562.290	562.290	0.00570	0.02043	1.45031	569.970
Vendor	0.02247	0.01046	0.47681	0.15521	0.00378	0.00756	0.14389	0.15146	0.00756	0.03976	0.04732	—	473.063	473.063	0.00786	0.07067	1.02754	495.347
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15392	0.13349	0.14869	1.87316	0.00000	0.00000	0.56331	0.56331	0.00000	0.13204	0.13204	—	517.333	517.333	0.00665	0.02043	0.03770	523.624
Vendor	0.02173	0.00971	0.49669	0.15928	0.00378	0.00756	0.14389	0.15146	0.00756	0.03976	0.04732	—	473.454	473.454	0.00786	0.07067	0.02672	494.736
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04639	0.04023	0.04481	0.59716	0.00000	0.00000	0.16767	0.16767	0.00000	0.03927	0.03927	—	157.870	157.870	0.00200	0.00616	0.18862	159.943
Vendor	0.00666	0.00304	0.15051	0.04744	0.00114	0.00228	0.04291	0.04519	0.00228	0.01187	0.01415	—	142.617	142.617	0.00237	0.02130	0.13397	149.157
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00847	0.00734	0.00818	0.10898	0.00000	0.00000	0.03060	0.03060	0.00000	0.00717	0.00717	—	26.1371	26.1371	0.00033	0.00102	0.03123	26.4804
Vendor	0.00122	0.00055	0.02747	0.00866	0.00021	0.00042	0.00783	0.00825	0.00042	0.00217	0.00258	—	23.6118	23.6118	0.00039	0.00353	0.02218	24.6946
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Paving (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80047	0.67262	6.45817	9.91841	0.01395	0.23904	—	0.23904	0.21992	—	0.21992	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.81
Paving	0.77575	0.77575	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06799	0.05713	0.54850	0.84239	0.00118	0.02030	—	0.02030	0.01868	—	0.01868	—	128.300	128.300	0.00520	0.00104	—	128.740
Paving	0.06589	0.06589	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01241	0.01043	0.10010	0.15374	0.00022	0.00371	—	0.00371	0.00341	—	0.00341	—	21.2415	21.2415	0.00086	0.00017	—	21.3144
Paving	0.01202	0.01202	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05655	0.05556	0.04497	0.86757	0.00000	0.00000	0.19606	0.19606	0.00000	0.04596	0.04596	—	195.708	195.708	0.00198	0.00711	0.50479	198.381
Vendor	0.00267	0.00124	0.05670	0.01846	0.00045	0.00090	0.01711	0.01801	0.00090	0.00473	0.00563	—	56.2570	56.2570	0.00093	0.00840	0.12220	58.9070
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00455	0.00395	0.00440	0.05857	0.00000	0.00000	0.01645	0.01645	0.00000	0.00385	0.00385	—	15.4851	15.4851	0.00020	0.00060	0.01850	15.6885
Vendor	0.00022	0.00010	0.00504	0.00159	0.00004	0.00008	0.00144	0.00151	0.00008	0.00040	0.00047	—	4.77965	4.77965	0.00008	0.00071	0.00449	4.99883
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00083	0.00072	0.00080	0.01069	0.00000	0.00000	0.00300	0.00300	0.00000	0.00070	0.00070	—	2.56374	2.56374	0.00003	0.00010	0.00306	2.59741
Vendor	0.00004	0.00002	0.00092	0.00029	0.00001	0.00001	0.00026	0.00028	0.00001	0.00007	0.00009	—	0.79133	0.79133	0.00001	0.00012	0.00074	0.82761
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Architectural Coating (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968

Architectural	38.1625	38.1625	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01052	0.00869	0.06745	0.09446	0.00015	0.00109	—	0.00109	0.00100	—	0.00100	—	11.3392	11.3392	0.00046	0.00009	—	11.3781
Architectural Coatings	3.24120	3.24120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00192	0.00159	0.01231	0.01724	0.00003	0.00020	—	0.00020	0.00018	—	0.00018	—	1.87733	1.87733	0.00008	0.00002	—	1.88377
Architectural Coatings	0.59152	0.59152	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03249	0.03192	0.02584	0.49853	0.00000	0.00000	0.11266	0.11266	0.00000	0.02641	0.02641	—	112.458	112.458	0.00114	0.00409	0.29006	113.994
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00261	0.00227	0.00253	0.03366	0.00000	0.00000	0.00945	0.00945	0.00000	0.00221	0.00221	—	8.89810	8.89810	0.00011	0.00035	0.01063	9.01496
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00048	0.00041	0.00046	0.00614	0.00000	0.00000	0.00172	0.00172	0.00000	0.00040	0.00040	—	1.47318	1.47318	0.00002	0.00006	0.00176	1.49253
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/3/2028	1/20/2028	5.00000	14.0000	—
Grading	Grading	1/21/2028	3/7/2028	5.00000	33.0000	—
Building Construction	Building Construction	3/8/2028	6/3/2029	5.00000	323.000	—
Paving	Paving	4/20/2029	6/3/2029	5.00000	31.0000	—
Architectural Coating	Architectural Coating	4/20/2029	6/3/2029	5.00000	31.0000	—

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
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000

Site Preparation	Tractors/Loaders/Back	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Grading	Scrapers	Diesel	Average	2.00000	8.00000	423.000	0.48000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	19.0000	10.2000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	1.000000	1.44000	HHDT
Grading	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	23.0000	10.2000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT

Grading	Onsite truck	1.000000	1.65000	HHDT
Building Construction	Worker	43.0966	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	16.8179	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	2.00000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	8.61932	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
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)
Architectural Coating	0.00000	0.00000	153,917	51,305.5	49,944.4

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	21.0000	0.00000	0.00000
Grading	—	—	99.0000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	19.1094

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Junior High School	0.00000	0%
Paving	Other Asphalt Surfaces	5.22560	100%
Paving	Other Non-Asphalt Surfaces	9.93065	0%
Paving	Parking Lot	3.95317	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00000	531.983	0.03300	0.00400
2029	0.00000	531.983	0.03300	0.00400

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Lot acreage of Educational land use adjusted to account for acreage of landscaping.
Construction: Construction Phases	Activty durations adjusted to match District-provided construction time frame of January 2028 - June 2029.
Operations: Vehicle Data	Project trips adjusted for consistency with project transportation study
Operations: Fleet Mix	Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	2.35562	16.8506
Landscape Area	sq. ft	—	649,401

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	Start Date	3/14/2028	1/3/2028
Site Preparation	Site Preparation	End Date	4/25/2028	1/20/2028
Site Preparation	Site Preparation	Work Days per Phase	30.0000	14.0000
Grading	Grading	Start Date	4/26/2028	1/21/2028
Grading	Grading	End Date	8/9/2028	3/7/2028
Grading	Grading	Work Days per Phase	75.0000	33.0000
Building Construction	Building Construction	Start Date	8/10/2028	3/8/2028
Building Construction	Building Construction	End Date	6/12/2031	6/3/2029
Building Construction	Building Construction	Work Days per Phase	740.000	323.000

Paving	Paving	Start Date	6/13/2031	4/20/2029
Paving	Paving	End Date	8/29/2031	6/3/2029
Paving	Paving	Work Days per Phase	55.0000	31.0000
Architectural Coating	Architectural Coating	Start Date	8/30/2031	4/20/2029
Architectural Coating	Architectural Coating	End Date	11/15/2031	6/3/2029
Architectural Coating	Architectural Coating	Work Days per Phase	55.0000	31.0000

New TK-8 School at Brookside and Highland Springs Custom Report

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8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

8.5.1.2. Fleet Mix

8.5.4. Water and Waste Water

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	New TK-8 School at Brookside and Highland Springs
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50000
Precipitation (days)	19.2000
Location	40733 Brookside Ave, Cherry Valley, CA 92223, USA
County	Riverside-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5630
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.38

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
Junior High School	102.611	1000sqft	16.8506	102,611	649,401	649,401	—	—
Other Asphalt Surfaces	227.627	1000sqft	5.22560	0.00000	0.00000	—	—	—

Other Non-Asphalt Surfaces	432.579	1000sqft	9.93065	0.00000	0.00000	—	—	—
Parking Lot	172.200	1000sqft	3.95317	0.00000	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.3. 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.	12.9522	12.1828	4.66833	81.5122	0.16418	0.13115	17.2913	17.4224	0.12368	4.36597	4.48965	74.7727	17,800.9	17,875.7	8.01820	0.48697	41.1388	18,262.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.7720	11.0336	5.00994	66.1447	0.15169	0.12324	17.2999	17.4231	0.11771	4.36830	4.48601	74.7727	16,560.4	16,635.2	8.07423	0.51726	1.45286	16,992.6
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.62683	9.06253	3.86719	51.8430	0.11087	0.10778	12.1966	12.3044	0.10250	3.07998	3.18248	74.7727	12,403.7	12,478.5	7.84944	0.37783	12.9622	12,800.3
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.75690	1.65391	0.70576	9.46135	0.02023	0.01967	2.22589	2.24556	0.01871	0.56210	0.58080	12.3795	2,053.57	2,065.95	1.29956	0.06255	2.14604	2,119.23

2.4. 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	9.49967	8.82783	3.97095	76.4951	0.15995	0.07307	17.2913	17.3644	0.06754	4.36597	4.43351	—	16,207.1	16,207.1	0.67745	0.46993	40.7425	16,404.9
Area	3.37992	3.31867	0.03755	4.46279	0.00027	0.00793	—	0.00793	0.00599	—	0.00599	—	18.3516	18.3516	0.00077	0.00016	—	18.4178
Energy	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	1,563.76	1,563.76	0.14369	0.01045	—	1,570.47
Water	—	—	—	—	—	—	—	—	—	—	—	2.88132	11.6579	14.5392	0.01101	0.00643	—	16.7304
Waste	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	12.9522	12.1828	4.66833	81.5122	0.16418	0.13115	17.2913	17.4224	0.12368	4.36597	4.48965	74.7727	17,800.9	17,875.7	8.01820	0.48697	41.1388	18,262.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.11391	8.41186	4.35011	65.5905	0.14773	0.07310	17.2999	17.3730	0.06757	4.36830	4.43586	—	14,985.0	14,985.0	0.73424	0.50038	1.05649	15,153.5
Area	2.58546	2.58546	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	1,563.76	1,563.76	0.14369	0.01045	—	1,570.47
Water	—	—	—	—	—	—	—	—	—	—	—	2.88132	11.6579	14.5392	0.01101	0.00643	—	16.7304
Waste	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	11.7720	11.0336	5.00994	66.1447	0.15169	0.12324	17.2999	17.4231	0.11771	4.36830	4.48601	74.7727	16,560.4	16,635.2	8.07423	0.51726	1.45286	16,992.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.42464	5.93858	3.18164	48.2320	0.10673	0.05220	12.1966	12.2488	0.04825	3.07998	3.12822	—	10,815.7	10,815.7	0.50893	0.36084	12.5658	10,948.5
Area	3.12961	3.08766	0.02572	3.05671	0.00018	0.00543	—	0.00543	0.00410	—	0.00410	—	12.5696	12.5696	0.00053	0.00011	—	12.6149
Energy	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	1,563.76	1,563.76	0.14369	0.01045	—	1,570.47
Water	—	—	—	—	—	—	—	—	—	—	—	2.88132	11.6579	14.5392	0.01101	0.00643	—	16.7304
Waste	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	9.62683	9.06253	3.86719	51.8430	0.11087	0.10778	12.1966	12.3044	0.10250	3.07998	3.18248	74.7727	12,403.7	12,478.5	7.84944	0.37783	12.9622	12,800.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.17250	1.08379	0.58065	8.80235	0.01948	0.00953	2.22589	2.23541	0.00881	0.56210	0.57090	—	1,790.66	1,790.66	0.08426	0.05974	2.08042	1,812.65
Area	0.57115	0.56350	0.00469	0.55785	0.00003	0.00099	—	0.00099	0.00075	—	0.00075	—	2.08104	2.08104	0.00009	0.00002	—	2.08855
Energy	0.01325	0.00662	0.12042	0.10115	0.00072	0.00915	—	0.00915	0.00915	—	0.00915	—	258.899	258.899	0.02379	0.00173	—	260.009
Water	—	—	—	—	—	—	—	—	—	—	—	0.47704	1.93010	2.40713	0.00182	0.00106	—	2.76991
Waste	—	—	—	—	—	—	—	—	—	—	—	11.9024	0.00000	11.9024	1.18961	0.00000	—	41.6426
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06562	0.06562
Total	1.75690	1.65391	0.70576	9.46135	0.02023	0.01967	2.22589	2.24556	0.01871	0.56210	0.58080	12.3795	2,053.57	2,065.95	1.29956	0.06255	2.14604	2,119.23

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	9.49967	8.82783	3.97095	76.4951	0.15995	0.07307	17.2913	17.3644	0.06754	4.36597	4.43351	—	16,207.1	16,207.1	0.67745	0.46993	40.7425	16,404.9
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	9.49967	8.82783	3.97095	76.4951	0.15995	0.07307	17.2913	17.3644	0.06754	4.36597	4.43351	—	16,207.1	16,207.1	0.67745	0.46993	40.7425	16,404.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	9.11391	8.41186	4.35011	65.5905	0.14773	0.07310	17.2999	17.3730	0.06757	4.36830	4.43586	—	14,985.0	14,985.0	0.73424	0.50038	1.05649	15,153.5
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	9.11391	8.41186	4.35011	65.5905	0.14773	0.07310	17.2999	17.3730	0.06757	4.36830	4.43586	—	14,985.0	14,985.0	0.73424	0.50038	1.05649	15,153.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	1.17250	1.08379	0.58065	8.80235	0.01948	0.00953	2.22589	2.23541	0.00881	0.56210	0.57090	—	1,790.66	1,790.66	0.08426	0.05974	2.08042	1,812.65
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	1.17250	1.08379	0.58065	8.80235	0.01948	0.00953	2.22589	2.23541	0.00881	0.56210	0.57090	—	1,790.66	1,790.66	0.08426	0.05974	2.08042	1,812.65

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	633.397	633.397	0.06038	0.00732	—	637.087
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143.076	143.076	0.01364	0.00165	—	143.909
Total	—	—	—	—	—	—	—	—	—	—	—	—	776.473	776.473	0.07401	0.00897	—	780.997
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	633.397	633.397	0.06038	0.00732	—	637.087
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143.076	143.076	0.01364	0.00165	—	143.909
Total	—	—	—	—	—	—	—	—	—	—	—	—	776.473	776.473	0.07401	0.00897	—	780.997
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	104.866	104.866	0.01000	0.00121	—	105.477
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	23.6878	23.6878	0.00226	0.00027	—	23.8259
Total	—	—	—	—	—	—	—	—	—	—	—	—	128.554	128.554	0.01225	0.00149	—	129.303

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	787.289	787.289	0.06967	0.00148	—	789.473
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	787.289	787.289	0.06967	0.00148	—	789.473
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	787.289	787.289	0.06967	0.00148	—	789.473
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.07258	0.03629	0.65983	0.55426	0.00396	0.05015	—	0.05015	0.05015	—	0.05015	—	787.289	787.289	0.06967	0.00148	—	789.473
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	0.01325	0.00662	0.12042	0.10115	0.00072	0.00915	—	0.00915	0.00915	—	0.00915	—	130.345	130.345	0.01154	0.00025	—	130.706
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.01325	0.00662	0.12042	0.10115	0.00072	0.00915	—	0.00915	0.00915	—	0.00915	—	130.345	130.345	0.01154	0.00025	—	130.706

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	2.26134	2.26134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.32412	0.32412	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.79446	0.73321	0.03755	4.46279	0.00027	0.00793	—	0.00793	0.00599	—	0.00599	—	18.3516	18.3516	0.00077	0.00016	—	18.4178
Total	3.37992	3.31867	0.03755	4.46279	0.00027	0.00793	—	0.00793	0.00599	—	0.00599	—	18.3516	18.3516	0.00077	0.00016	—	18.4178
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.26134	2.26134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.32412	0.32412	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.58546	2.58546	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.41270	0.41270	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05915	0.05915	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.09931	0.09165	0.00469	0.55785	0.00003	0.00099	—	0.00099	0.00075	—	0.00075	—	2.08104	2.08104	0.00009	0.00002	—	2.08855
Total	0.57115	0.56350	0.00469	0.55785	0.00003	0.00099	—	0.00099	0.00075	—	0.00075	—	2.08104	2.08104	0.00009	0.00002	—	2.08855

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	2.88132	11.6579	14.5392	0.01101	0.00643	—	16.7304
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	2.88132	11.6579	14.5392	0.01101	0.00643	—	16.7304
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	2.88132	11.6579	14.5392	0.01101	0.00643	—	16.7304
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Total	—	—	—	—	—	—	—	—	—	—	—	2.88132	11.6579	14.5392	0.01101	0.00643	—	16.7304
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.47704	1.93010	2.40713	0.00182	0.00106	—	2.76991
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	0.47704	1.93010	2.40713	0.00182	0.00106	—	2.76991

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Total	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	71.8914	0.00000	71.8914	7.18528	0.00000	—	251.523
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	11.9024	0.00000	11.9024	1.18961	0.00000	—	41.6426
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	11.9024	0.00000	11.9024	1.18961	0.00000	—	41.6426

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39637	0.39637
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06562	0.06562
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06562	0.06562

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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
Junior High School	2,724.04	0.00000	0.00000	710,197	24,794.1	0.00000	0.00000	6,464,164
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Junior High School	Wood Fireplaces	0	0
Junior High School	Gas Fireplaces	0	0

Junior High School	Propane Fireplaces	0	0
Junior High School	Electric Fireplaces	0	0
Junior High School	No Fireplaces	0	0
Junior High School	Conventional Wood Stoves	0	0
Junior High School	Catalytic Wood Stoves	0	0
Junior High School	Non-Catalytic Wood Stoves	0	0
Junior High School	Pellet Wood Stoves	0	0
Other Asphalt Surfaces	Wood Fireplaces	0	0
Other Asphalt Surfaces	Gas Fireplaces	0	0
Other Asphalt Surfaces	Propane Fireplaces	0	0
Other Asphalt Surfaces	Electric Fireplaces	0	0
Other Asphalt Surfaces	No Fireplaces	0	0
Other Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Pellet Wood Stoves	0	0
Other Non-Asphalt Surfaces	Wood Fireplaces	0	0
Other Non-Asphalt Surfaces	Gas Fireplaces	0	0
Other Non-Asphalt Surfaces	Propane Fireplaces	0	0
Other Non-Asphalt Surfaces	Electric Fireplaces	0	0
Other Non-Asphalt Surfaces	No Fireplaces	0	0
Other Non-Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Non-Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0

Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0.00000	0.00000	153,917	51,305.5	49,944.4

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

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)
Junior High School	667,800	346.196	0.0330	0.0040	2,456,552
Other Asphalt Surfaces	0.00000	346.196	0.0330	0.0040	0.00000
Other Non-Asphalt Surfaces	0.00000	346.196	0.0330	0.0040	0.00000
Parking Lot	150,847	346.196	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Junior High School	1,348,310	586,555
Other Asphalt Surfaces	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
Parking Lot	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Junior High School	133.394	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
Parking Lot	0.00000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Junior High School	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.00004	1.000000	0.00000	1.000000

Junior High School	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Lot acreage of Educational land use adjusted to account for acreage of landscaping.
Construction: Construction Phases	Activty durations adjusted to match District-provided construction time frame of January 2028 - June 2029.
Operations: Vehicle Data	Project trips adjusted for consistency with project transportation study. Modified trip percentages from ratio of approximately 10.2 to 10.5 students to staff based on information from NCES. H-W trips represent staff trips and O-O represent student trips.
Operations: Fleet Mix	Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.
Operations: Water and Waste Water	1. Revised indoor and outdoor water use for consistency with calculations in Utilities and Service Systems section of IS/MND. 2. Assume 100% aerobic treatment.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	2.35562	16.8506
Landscape Area	sq. ft	—	649,401

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Junior High School	Weekday Trip Rate	size/day	20.1700	26.5469
Junior High School	Non-Res H-W Trip	%	41.0381	10.00000
Junior High School	Non-Res O-O Trip	%	52.9603	84.0000

8.5.1.2. Fleet Mix

Land Use	Season	Model Parameter	Units	Default Value	New Value
Junior High School	A	Heavy-Heavy-Duty Trucks	%	2%	< 0.5%
Junior High School	A	Passenger Cars	%	49%	62%
Junior High School	A	Light-Duty Trucks 1	%	4%	4%
Junior High School	A	Light-Duty Trucks 2	%	22%	27%
Junior High School	A	Light Heavy-Duty Trucks 1	%	3%	< 0.5%
Junior High School	A	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Junior High School	A	Motorcycles	%	2%	3%
Junior High School	A	Medium-Duty Trucks	%	15%	2%
Junior High School	A	Motor Homes	%	1%	0%
Junior High School	A	Medium-Heavy-Duty Trucks	%	2%	< 0.5%

Junior High School	A	Other Buses	%	< 0.5%	0%
Junior High School	A	School Buses	%	< 0.5%	< 0.5%
Junior High School	A	Urban Buses	%	< 0.5%	0%
Junior High School	S	Heavy-Heavy-Duty Trucks	%	2%	< 0.5%
Junior High School	S	Passenger Cars	%	49%	62%
Junior High School	S	Light-Duty Trucks 1	%	4%	4%
Junior High School	S	Light-Duty Trucks 2	%	22%	27%
Junior High School	S	Light Heavy-Duty Trucks 1	%	3%	< 0.5%
Junior High School	S	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Junior High School	S	Motorcycles	%	2%	3%
Junior High School	S	Medium-Duty Trucks	%	15%	2%
Junior High School	S	Motor Homes	%	1%	0%
Junior High School	S	Medium-Heavy-Duty Trucks	%	2%	< 0.5%
Junior High School	S	Other Buses	%	< 0.5%	0%
Junior High School	S	School Buses	%	< 0.5%	< 0.5%
Junior High School	S	Urban Buses	%	< 0.5%	0%
Junior High School	W	Heavy-Heavy-Duty Trucks	%	2%	< 0.5%
Junior High School	W	Passenger Cars	%	49%	62%
Junior High School	W	Light-Duty Trucks 1	%	4%	4%
Junior High School	W	Light-Duty Trucks 2	%	22%	27%
Junior High School	W	Light Heavy-Duty Trucks 1	%	3%	< 0.5%
Junior High School	W	Light Heavy-Duty Trucks 2	%	1%	< 0.5%
Junior High School	W	Motorcycles	%	2%	3%
Junior High School	W	Medium-Duty Trucks	%	15%	2%
Junior High School	W	Motor Homes	%	1%	0%
Junior High School	W	Medium-Heavy-Duty Trucks	%	2%	< 0.5%
Junior High School	W	Other Buses	%	< 0.5%	0%
Junior High School	W	School Buses	%	< 0.5%	< 0.5%

8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
Junior High School	Indoor Water	gal/year	2,115,942	1,348,310
Junior High School	Outdoor Water	gal/year	22,881,588	586,555
Junior High School	Treated by Septic Tank	%	10.3300	0.00000
Junior High School	Treated by Aerobic Processes	%	87.4600	100.0000
Junior High School	Treated by Facultative Lagoons	%	2.21000	0.00000

Regional Construction Emissions Worksheet:

3.1. Site Preparation (2028) - Unmitigated

	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Winter**					
Off-Road Equipment	3.04	27.45	28.35	0.05	1.14	1.05
Dust From Material Movement	0.00	0.00	0.00	0.00	7.67	3.94
Onsite truck	0.00	0.02	0.01	0.00	0.53	0.05
Total	**3.04**	**27.47**	**28.36**	**0.05**	**9.34**	**5.05**
Offsite						
Worker	0.06	0.07	0.82	0.00	0.23	0.05
Vendor	0.01	0.59	0.18	0.00	0.17	0.05
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.08**	**0.65**	**1.00**	**0.00**	**0.40**	**0.11**
TOTAL	***3.11***	***28.13***	***29.37***	***0.05***	***9.74***	***5.15***

3.3. Grading (2028) - Unmitigated

	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Winter**					
Off-Road Equipment	2.88	24.33	27.17	0.06	0.99	0.91
Dust From Material Movement	0.00	0.00	0.00	0.00	3.59	1.42
Onsite truck	0.00	0.02	0.01	0.00	0.61	0.06
Total	**2.88**	**24.35**	**27.18**	**0.06**	**5.19**	**2.39**
Offsite						
Worker	0.07	0.08	0.94	0.00	0.26	0.06
Vendor	0.01	0.71	0.22	0.01	0.21	0.06
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.79**	**1.16**	**0.01**	**0.47**	**0.13**
TOTAL	***2.97***	***25.13***	***28.34***	***0.07***	***5.66***	***2.52***

3.5. Building Construction (2028) - Unmitigated

	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Summer**					
Off-Road Equipment	0.99	8.92	12.94	0.02	0.30	0.28
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.99**	**8.92**	**12.94**	**0.02**	**0.30**	**0.28**
Offsite						
Worker	0.17	0.17	2.67	0.00	0.56	0.13
Vendor	0.01	0.52	0.16	0.00	0.15	0.05
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.18**	**0.69**	**2.83**	**0.00**	**0.71**	**0.18**
TOTAL	***1.17***	***9.61***	***15.77***	***0.03***	***1.02***	***0.46***

3.7. Building Construction (2029) - Unmitigated

	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Summer**					
Off-Road Equipment	0.97	8.58	12.90	0.02	0.28	0.25
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.97**	**8.58**	**12.90**	**0.02**	**0.28**	**0.25**
Offsite						
Worker	0.16	0.15	2.49	0.00	0.56	0.13
Vendor	0.01	0.50	0.16	0.00	0.15	0.05
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.17**	**0.65**	**2.65**	**0.00**	**0.71**	**0.18**
TOTAL	***1.14***	***9.23***	***15.55***	***0.03***	***0.99***	***0.43***

3.9. Paving (2029) - Unmitigated

	ROG	NOx	CO	SO_2	PM10 Total	PM2.5Total
Onsite	**Summer**					
Off-Road Equipment	0.67	6.46	9.92	0.01	0.24	0.22
Paving	0.78	0.00	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**1.45**	**6.46**	**9.92**	**0.01**	**0.24**	**0.22**
Offsite						
Worker	0.06	0.04	0.87	0.00	0.20	0.05
Vendor	0.00	0.06	0.02	0.00	0.02	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.10**	**0.89**	**0.00**	**0.21**	**0.05**
TOTAL	***1.51***	***6.56***	***10.80***	***0.01***	***0.45***	***0.27***

3.11. Architectural Coating (2029) - Unmitigated						
	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**Winter**					
Off-Road Equipment	0.10	0.79	1.11	0.00	0.01	0.01
Architectural Coating	38.16	0.00	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Total	**38.26**	**0.79**	**1.11**	**0.00**	**0.01**	**0.01**
Offsite						
Worker	0.03	0.03	0.50	0.00	0.11	0.03
Vendor	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
Total	**0.03**	**0.03**	**0.50**	**0.00**	**0.11**	**0.03**
TOTAL	***38.30***	***0.82***	***1.61***	***0.00***	***0.13***	***0.04***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Site Preparation 2028	***3***	***28***	***29***	***0***	***10***	***5***
Grading 2028	***3***	***25***	***28***	***0***	***6***	***3***
Building Construction 2028	***1***	***10***	***16***	***0***	***1***	***0***
Building Construction, Paving, and Architectural Coating 2029	***41***	***17***	***28***	***0***	***2***	***1***
MAX DAILY	**41**	**28**	**29**	**0**	**10**	**5**
Regional Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

Construction LST Worksheet:

3.1. Site Preparation (2028) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	27.45	28.35	1.14	1.05
Dust From Material Movement	0.00	0.00	7.67	3.94
Onsite truck	0.02	0.01	0.53	0.05
Total	**27.47**	**28.36**	**9.34**	**5.05**

3.3. Grading (2028) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	24.33	27.17	0.99	0.91
Dust From Material Movement	0.00	0.00	3.59	1.42
Onsite truck	0.02	0.01	0.61	0.06
Total	**24.35**	**27.18**	**5.19**	**2.39**

3.5. Building Construction (2028) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	8.92	12.94	0.30	0.28
Onsite truck	0.00	0.00	0.00	0.00
Total	**8.92**	**12.94**	**0.30**	**0.28**

3.7. Building Construction (2029) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	8.58	12.90	0.28	0.25
Onsite truck	0.00	0.00	0.00	0.00
Total	**8.58**	**12.90**	**0.28**	**0.25**

3.9. Paving (2029) - Unmitigated

	NOx	CO	PM10 Total	PM2.5Total
Onsite				
Off-Road Equipment	6.46	9.92	0.24	0.22
Paving	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00
Total	**6.46**	**9.92**	**0.24**	**0.22**

3.11. Architectural Coating (2029) - Unmitigated

	NOx	CO	PM10 Total	PM2.5 Total
Onsite				
Off-Road Equipment	0.79	1.11	0.01	0.01
Architectural Coating	0.00	0.00	0.00	0.00
Onsite truck	0.00	0.00	0.00	0.00
Total	**0.79**	**1.11**	**0.01**	**0.01**

	NOx	CO	PM10 Total	PM2.5 Total
Site Preparation 2028	*27*	*28*	*9.34*	*5.05*
3.50 Acre LST	*193*	*2,179*	*15.50*	*8.50*
Exceeds LST?	*no*	*no*	*no*	*no*
Grading 2028	*24*	*27*	*5.19*	*2.39*
4.00 Acre LST	*207*	*2,392*	*17.33*	*9.33*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction 2028	*9*	*13*	*0.30*	*0.28*
1.31 Acre LST	*117*	*1,169*	*7.25*	*4.63*
Exceeds LST?	*no*	*no*	*no*	*no*
Building Construction, Paving, and Architectural Coating 2029	*16*	*24*	*0.53*	*0.49*
1.31 Acre LST	*117*	*1,169*	*7*	*5*
Exceeds LST?	*no*	*no*	*no*	*no*

Regional Operation Emissions Worksheet

[1] CalEEMod, Version 2022.1.

Proposed Project

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	8.83	3.97	76.50	0.16	17.36	4.43
Area	3.32	0.04	4.46	0.00	0.01	0.01
Energy	0.04	0.66	0.55	0.00	0.05	0.05
Total	**12.18**	**4.67**	**81.51**	**0.16**	**17.42**	**4.49**

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	8.41	4.35	65.59	0.15	17.37	4.44
Area	2.59	0.00	0.00	0.00	0.00	0.00
Energy	0.04	0.66	0.55	0.00	0.05	0.05
Total	**11.03**	**5.01**	**66.14**	**0.15**	**17.42**	**4.49**

Max Daily

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Mobile	9	4	76	0	17.37	4.44
Area	3	0	4	0	0.01	0.01
Energy	0	1	1	0	0.05	0.05
Total	**12**	**5**	**82**	**0**	**17**	**4**
Regional Thresholds (lb/day)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds?	No	No	No	No	No	No

GHG Emissions Inventory

Proposed Project Buildout

Construction[1]

	$MTCO_2e$
2028	487
2029	199
Total Construction	**487**
30-Year Amortization[2]	**16**

[1] CalEEMod, Version 2022.1.

[2] Total construction emissions are amortized over 30 years per SCAQMD methodology; SCAQMD. 2009, November 19. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 14. 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.

Operation[1]

	$MTCO_2e$/Year[2]	
	Operations	**%**
Mobile	1,813	85%
Area	2	0%
Energy	260	12%
Water	3	0%
Solid Waste	42	2%
Refrigerants	0	0%
30-Year Construction Amortization	16	1%
	2,135	100%

South Coast AQMD Bright-Line Screening Threshold	**3,000**
Exceed Threshold?	**No**

[1] CalEEMod, Version 2022.1.

[2] MTCO2e=metric tons of carbon dioxide equivalent.

Construction Localized Significance Thresholds: Site Preparation

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
29	3.50	152	500	152	500	35.96

Source Receptor	**Banning Airport**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	152						
NOx	**338**	Tractors	0.5	0.0625	8	4	2
CO	**6,798**	Graders	0.5	0.0625			0
PM10	**130.42**	Dozers	0.5	0.0625	8	3	1.5
PM2.5	**35.15**	Scrapers	1	0.125			0
						Acres	3.50

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	3	178	206	267	371	642
	4	207	235	300	403	670
		193	221	284	387	656
CO	3	1966	2558	4150	8391	28561
	4	2392	3066	4842	9387	30232
		2179	2812	4496	8889	29397
PM10	3	14	44	83	165	406
	4	17	55	94	172	406
		16	50	89	169	406
PM2.5	3	8	11	20	46	174
	4	9	12	22	50	181
		9	12	21	48	178

Banning Airport

3.50 Acres

	25	**50**	**100**	**200**	**500**
NOx	193	221	284	387	656
CO	2179	2812	4496	8889	29397
PM10	16	50	89	169	406
PM2.5	9	12	21	48	178

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
29	3	29	4
Distance Increment Below			
100			
Distance Increment Above			
200			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Grading

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
29	4.00	152	500	152	500	35.96

Source Receptor	Banning Airport	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	152						
NOx	**354**	Tractors	0.5	0.0625	8	2	1
CO	**7,224**	Graders	0.5	0.0625	8	1	0.5
PM10	**134.89**	Dozers	0.5	0.0625	8	1	0.5
PM2.5	**37.01**	Scrapers	1	0.125	8	2	2
						Acres	4.00

	Acres	25	50	100	200	500
NOx	4	207	235	300	403	670
	4	207	235	300	403	670
		207	235	300	403	670
CO	4	2392	3066	4842	9387	30232
	4	2392	3066	4842	9387	30232
		2392	3066	4842	9387	30232
PM10	4	17	55	94	172	406
	4	17	55	94	172	406
		17	55	94	172	406
PM2.5	4	9	12	22	50	181
	4	9	12	22	50	181
		9	12	22	50	181

Banning Airport

4.00 Acres

	25	50	100	200	500
NOx	207	235	300	403	670
CO	2392	3066	4842	9387	30232
PM10	17	55	94	172	406
PM2.5	9	12	22	50	181

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
29	4	29	4
Distance Increment Below			
100			
Distance Increment Above			
200			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction

SRA No.	Acres	***NOx & CO*** Source Receptor Distance (meters)	Source Receptor Distance (Feet)	***PM10 & PM2.5*** Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
29	1.31	152	500	152	500	35.96

Source Receptor Distance (meters)	**Banning Airport**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
	152						
NOx	**260**	Tractors	0.5	0.0625	7	3	1.3125
CO	**4,801**	Graders	0.5	0.0625			0
PM10	**101.04**	Dozers	0.5	0.0625			0
PM2.5	**26.79**	Scrapers	1	0.125			0
						Acres	1.31

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	131	189	299	585
	2	149	176	234	340	614
		117	145	203	312	594
CO	1	1000	1420	2623	6154	25057
	2	1541	2049	3458	7395	26890
		1169	1617	2884	6542	25630
PM10	1	6	19	55	129	348
	2	10	32	73	157	407
		7	23	61	138	366
PM2.5	1	4	7	14	36	156
	2	6	9	17	41	166
		5	8	15	38	159

Banning Airport

1.31 Acres

	25	**50**	**100**	**200**	**500**
NOx	117	145	203	312	594
CO	1169	1617	2884	6542	25630
PM10	7	23	61	138	366
PM2.5	5	8	15	38	159

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
29	1	29	2
Distance Increment Below			
100			
Distance Increment Above			
200			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Building Construction, Paving, and Architectural Coating

SRA No.	Acres	*NOx & CO* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	*PM10 & PM2.5* Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Construction / Project Site Size (Acres)
29	1.31	152	500	152	500	35.96

Source Receptor	**Banning Airport**	**Equipment**	**Acres/8-hr Day**		**Daily hours**	**Equipment Used**	**Acres**
Distance (meters)	152						
NOx	**260**	Tractors	0.5	0.0625	7	3	1.3125
CO	**4,801**	Graders	0.5	0.0625			0
PM10	**101.04**	Dozers	0.5	0.0625			0
PM2.5	**26.79**	Scrapers	1	0.125			0
						Acres	1.31

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	131	189	299	585
	2	149	176	234	340	614
		117	145	203	312	594
CO	1	1000	1420	2623	6154	25057
	2	1541	2049	3458	7395	26890
		1169	1617	2884	6542	25630
PM10	1	6	19	55	129	348
	2	10	32	73	157	407
		7	23	61	138	366
PM2.5	1	4	7	14	36	156
	2	6	9	17	41	166
		5	8	15	38	159

Banning Airport

1.31 Acres

	25	**50**	**100**	**200**	**500**
NOx	117	145	203	312	594
CO	1169	1617	2884	6542	25630
PM10	7	23	61	138	366
PM2.5	5	8	15	38	159

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
29	1	29	2
Distance Increment Below			
100			
Distance Increment Above			
200			

Updated: 10/21/2009 - Table C-1. 2006 – 2008