Appendix 2

Cherry Outpost Air Quality and Greenhouse Gas Emissions Technical Report

Cherry Outpost Project

Air Quality and Greenhouse Gas Emissions Technical Report

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ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
AAM	annual arithmetic mean
AB	Assembly Bill
APS	alternative planning strategy
AQMP	Air Quality Management Plan
ATC	authority to construct
BMP	best management practice
C_2F_6	hexafluoroethane
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CF_4	tetrafluoromethane
CFC	chlorofluorocarbon
CH_4	methane
City	City of Wildomar
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
DPM	diesel particulate matter
EO	Executive Order
EVR	enhanced vapor recovery
GHG	greenhouse gas
GWP	global warming potential
H_2S	hydrogen sulfide
HFC	hydrofluorocarbon
I-	Interstate
IPCC	Intergovernmental Panel on Climate Change

ACRONYMS AND ABBREVIATIONS (cont.)

km	kilometer
kWh	kilowatt-hours
LCFS	Low Carbon Fuel Standard
LOS	level of service
LST	localized significance threshold
mg/m^3	milligrams per cubic meter
MMT	million metric tons
mph	miles per hour
MPO	metropolitan planning organization
MT	metric ton
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
Pb	lead
PFC	perfluorocarbon
PM	particulate matter
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
ppm	parts per million
PTO	permit to operate
ROG	reactive organic gas
RPS	renewable portfolio standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SF_6	hexafluoride
SIP	State Implementation Plan
SLCP	short-lived climate pollutant

ACRONYMS AND ABBREVIATIONS (cont.)

SO_2	sulfur dioxide
SO_X	sulfur oxides
SRA	source receptor area
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USEPA	U.S. Environmental Protection Agency
VMT	vehicle miles traveled
VOC	volatile organic compound
WRI	World Resource Institute
WRCOG	Western Riverside Council of Governments

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EXECUTIVE SUMMARY

The Cherry Outpost Project (project) proposes a commercial development in the City of Wildomar (City) including a car wash, a gas station, a convenience store, two quick-serve restaurants with drive-throughs, and a 72-key hotel. Off-site roadway and storm drain improvements are also proposed as a component of the project. This report presents an assessment of potential air quality and greenhouse gas (GHG) emission impacts during construction and operation of the project.

The project would not generate population and employment growth beyond the levels assumed for the region. Pursuant to South Coast Air Quality Management District (SCAQMD) guidelines, the proposed project is considered consistent with the region's Air Quality Management Plan.

The project would result in emissions of criteria air pollutants during construction and operation. Operational sources of criteria air pollutant emissions include area sources and on-site energy use. The project is anticipated to reduce vehicle miles traveled in the region, thereby reducing mobile source emissions. Project emissions of criteria pollutants and precursors during construction and operation would remain below SCAQMD regional emissions thresholds. Impacts related to cumulatively considerable net increases of criteria pollutants in the region would be less than significant.

With implementation of mitigation measures AQ-1 and AQ-2, requiring construction equipment to be equipped with cleaner burning engines and enhanced fugitive dust control measures (increased water application) during site preparation and grading, construction and operation of the project would not result in exposure of sensitive receptors to significant quantities of toxic air contaminants or substantial localized criteria pollutant and precursor concentrations. Impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant with mitigation.

The project would not generate other emissions (such as those leading to odors) that would affect a substantial number of people.

GHG emissions resulting from construction and operation of the project would not exceed the SCAQMD's proposed annual screening threshold of 3,000 metric tons of carbon dioxide equivalent for development projects. The project would not conflict with any applicable GHG emission reduction plans. Impacts related to GHG emissions and conflicts with GHG emission reduction plans and policies would be less than significant.

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1.0 INTRODUCTION

HELIX Environmental Planning, Inc. has conducted this report to provide an analysis of potential impacts related to air quality and greenhouse gas (GHG) emissions during construction and operation of the Cherry Outpost Project (project). This report details the methods and results of the analyses and has been prepared to comply with the California Environmental Quality Act (CEQA) and South Coast Air Quality Management District (SCAQMD) guidelines.

1.1 PROJECT LOCATION

The approximately 6.64-acre project site is located in the City of Wildomar (City) in western Riverside County, California, and is generally located east of Interstate (I-) 15 and west of I-215 (Figure 1, *Regional Location*). Specifically, the project site is located at the northwest intersection of Bundy Canyon Road and Cherry Street and is bordered to the west by the I-15 northbound onramp (Figure 2, *Aerial Photograph*). The project site comprises two undeveloped parcels with Assessor's Parcel Numbers (APNs) 366-290-008 and -007. Off-site areas within the existing paved right-of-way (ROW) along Bundy Canyon Road and Cherry Street would also be altered as part of the project.

1.2 PROJECT DESCRIPTION

The proposed project consists of a commercial development split among four proposed parcels (see Figure 3, *Site Plan*). The first parcel would contain a 5,724-square foot car wash building in the southern portion of the project site. The second parcel located on the east side of the project site would contain a 14-pump gas station, 4,176-square foot convenience store, and 2,375-square foot quick-serve restaurant with a drive through. A quick-serve restaurant with a drive-through is also proposed on parcel 3 at the western edge of the site and would comprise approximately 4,425 square feet of building space. The fourth parcel at the northern edge of the project site would contain a 72-key, four story hotel totaling 45,571 square feet of floor area. Access to the site would be provided by two driveways along Cherry Street. Off-site project components include widening of Bundy Canyon Road, street improvements to Cherry Street, and installation of a storm drain pipe.

The project site is currently zoned as Commercial within the Scenic Highway Commercial Zone. The General Plan Land Use Element designates the project site for Commercial Retail use. The proposed project uses are consistent with the existing zoning and land use designations for the site and no changes to these designations are proposed.

1.3 CONSTRUCTION ACTIVITIES AND PHASING

Construction of the project would begin in August 2025 and take approximately nine months to complete. General project construction activities are anticipated to include site preparation, grading, physical building construction, paving, and architectural coating application. Grading of the site would require the export of approximately 4,160 cubic yards of materials. Project construction would be required to implement all applicable fugitive dust best available control measures specified in Table 1 of the SCAQMD Rule 403, Fugitive Dust (SCAQMD 2005), including, but not limited to: the use of an on-site water truck to wet down exposed areas, maintaining a 12 percent moisture content to unpaved roads, and limiting vehicle speeds to 15 miles per hour (mph).

2.0 REGULATORY SETTING

2.1 AIR QUALITY

The project site is located within the south coast air basin (SCAB). Air quality in the SCAB is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the state level, and by the SCAQMD at the regional level.

2.1.1 Air Pollutants of Concern

2.1.1.1 Criteria Pollutants

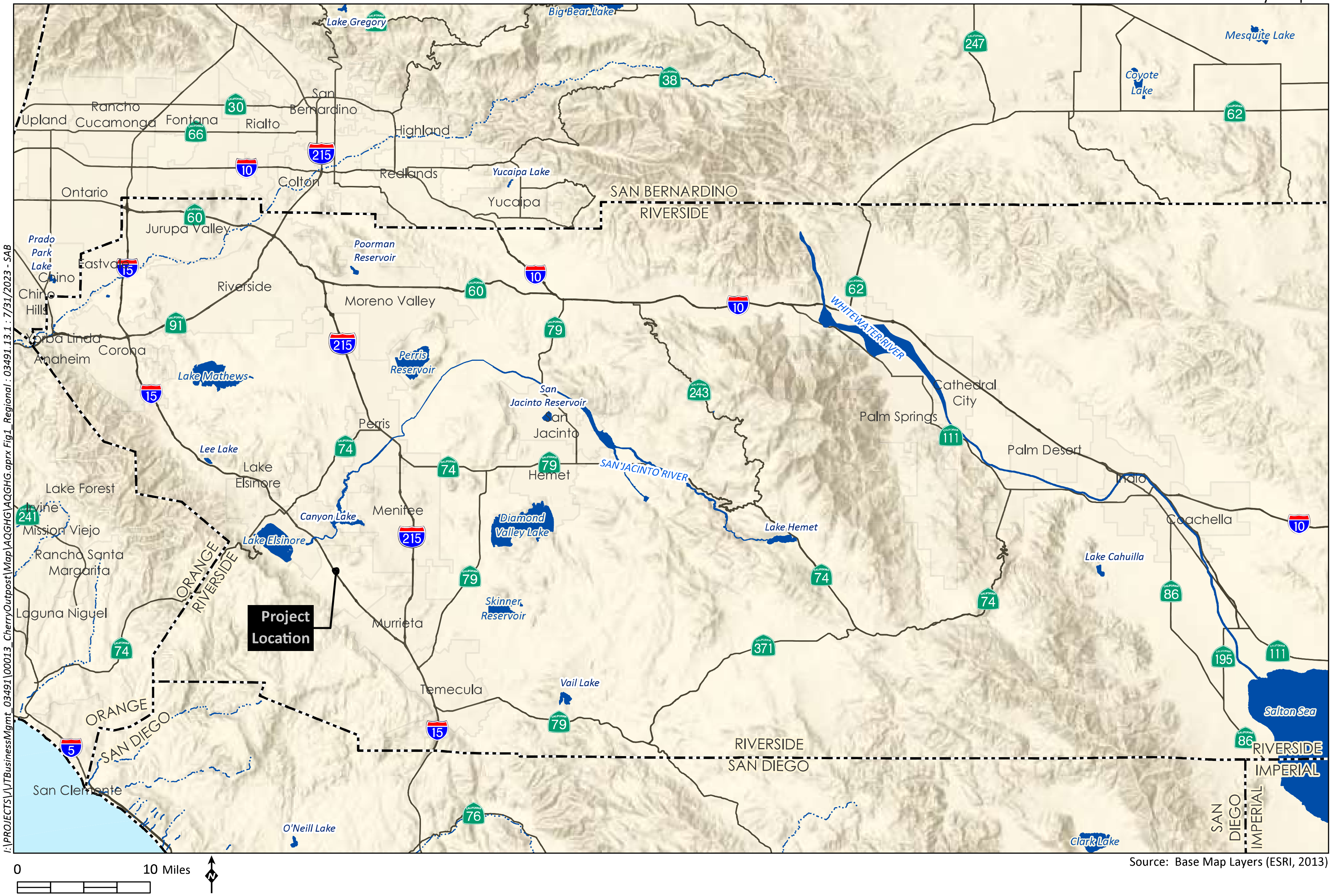
Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the public. In general, criteria air pollutants include the following compounds:

- Ozone (O_3)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Particulate matter (PM), which is further subdivided:
    - Coarse PM, 10 microns or less in diameter (PM_{10})
    - Fine PM, 2.5 microns or less in diameter ($PM_{2.5}$)
- Sulfur dioxide (SO_2)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO_2, PM_{10}, $PM_{2.5}$, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO_2, PM_{10}, and $PM_{2.5}$). PM_{10} and $PM_{2.5}$ can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases ([ROGs] also known as volatile organic compounds [VOCs])[1] and nitrogen oxides (NO_X).

Specific adverse health effects on individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO_2 are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from a project site (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel. As such, specific health effects from these criteria pollutant emissions cannot be meaningfully correlated to the incremental contribution from a project.

[1] CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.



Source: Base Map Layers (ESRI, 2013)

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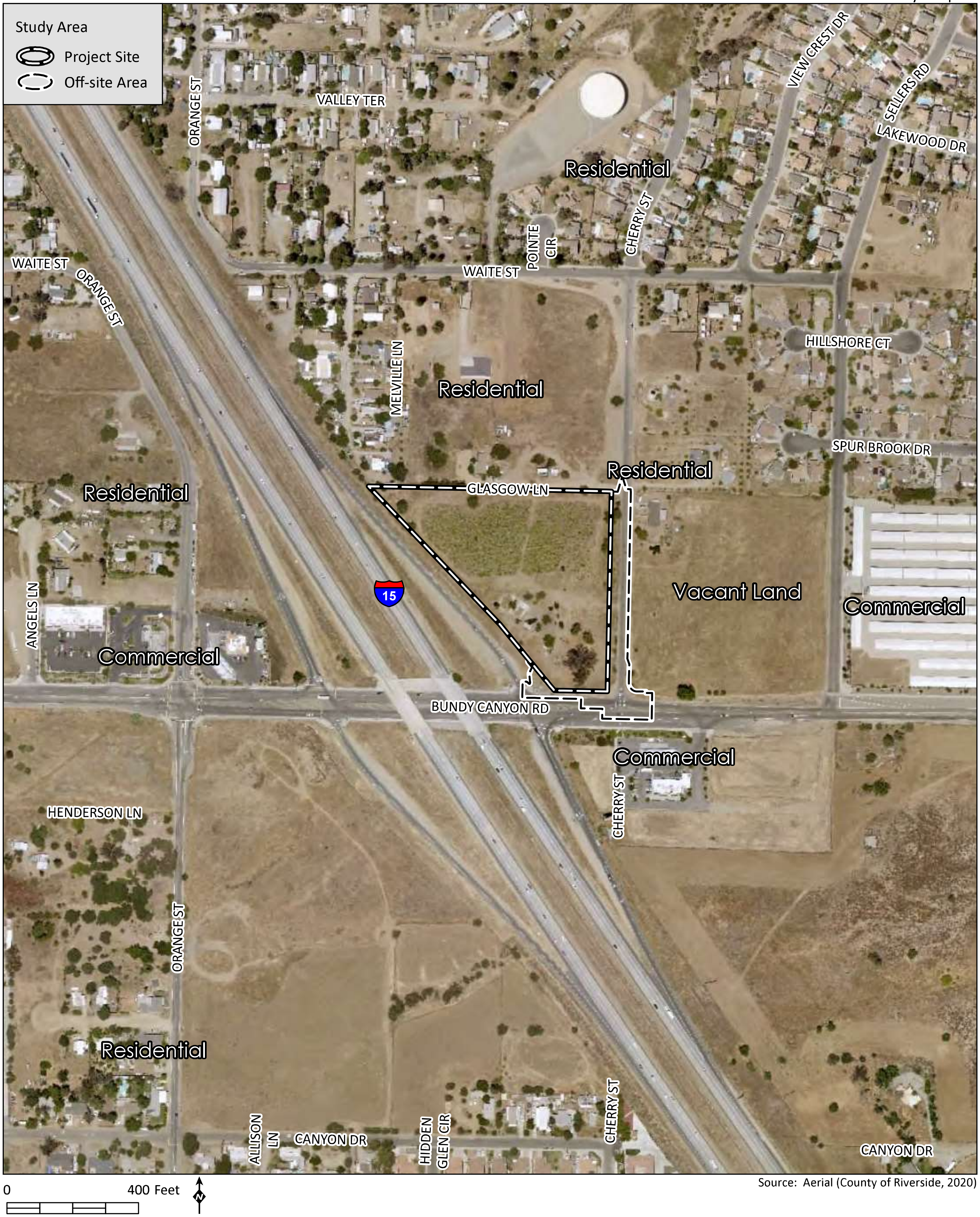
Regional Location

Figure 1



Source: Aerial (County of Riverside, 2020)

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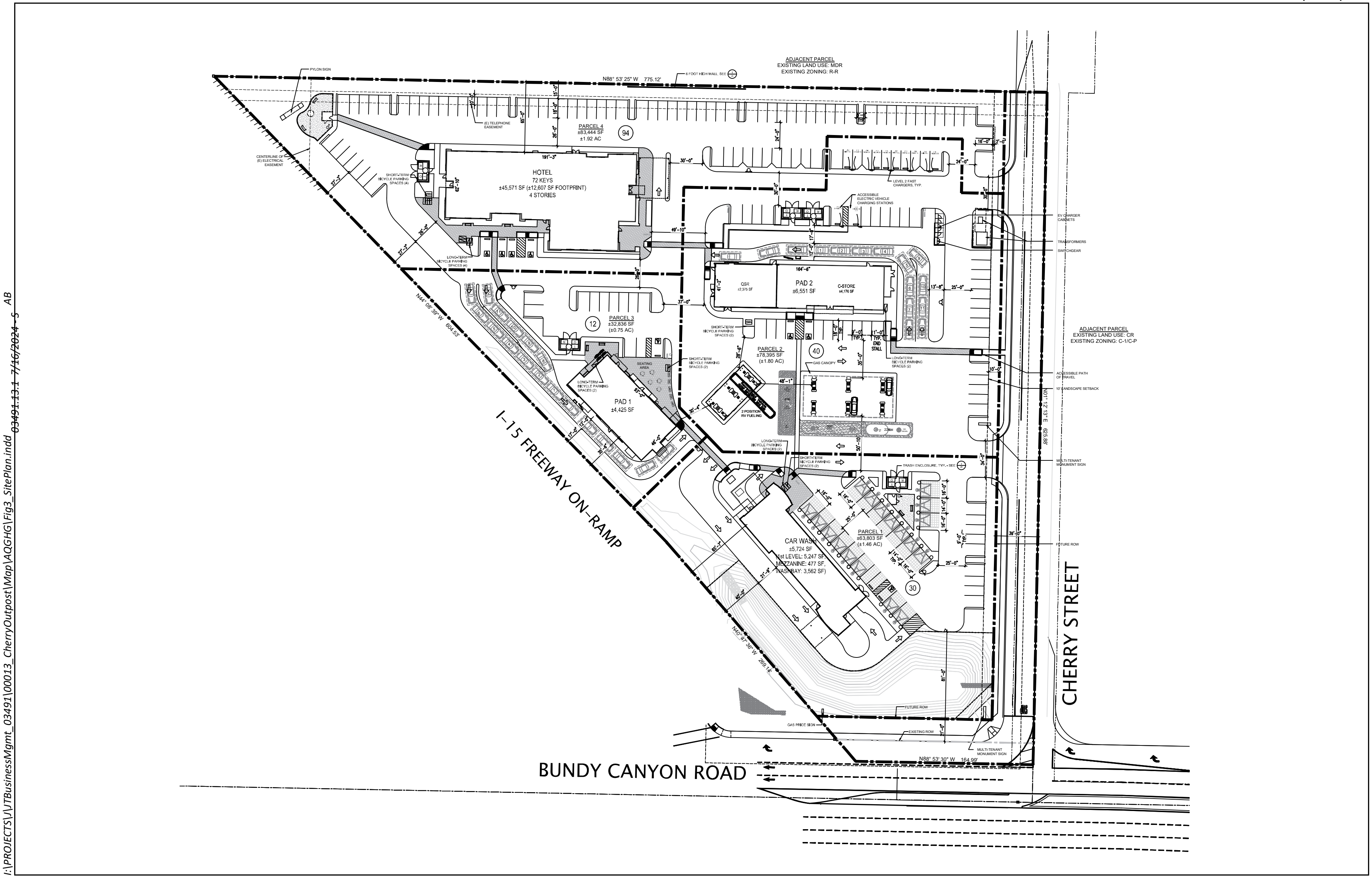
Aerial Photograph

Figure 2



Source: KGTY, 2024

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Site Plan

Figure 3

The following specific descriptions of health effects for each air pollutant associated with project construction and operation are based on information available through the USEPA (2023a) and CARB (2023a).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed when VOCs and nitrogen oxides (NO_X), both by-products of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Reactive Organic Gases. ROGs (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a product of fuel combustion. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen monoxide with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. PM_{10} refers to particulate matter with an aerodynamic diameter of 10 microns or less. $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified as a carcinogen by CARB.

Sulfur Dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen. Because emissions of lead are found only in projects that are permitted by the local air district, lead is not an air pollutant of concern for the proposed project.

2.1.1.2 Toxic Air Contaminants

The Health and Safety Code (Section 39655[a]) defines a toxic air contaminant (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 pursuant to subsection (b) of Section 112 of the Clean Air Act (CAA; 42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as DPM. Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is 2.5 microns or less in diameter (CARB 2023b). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2023b).

2.1.2 Federal Air Quality Regulations

2.1.2.1 Federal Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the public. The USEPA is responsible for enforcing the CAA of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants. Table 1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

Table 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards Primary[1]	Federal Standards Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–

Pollutant	Averaging Time	California Standards	Federal Standards Primary[1]	Federal Standards Secondary[2]
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	Same as Primary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	No Federal Standards
Sulfates	24 Hour	25 µg/m^3	No Federal Standards	No Federal Standards
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	No Federal Standards	No Federal Standards
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)	No Federal Standards	No Federal Standards

Source: CARB 2016

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

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

O_3 = ozone; ppm: parts per million; µg/m^3 = micrograms per cubic meter; PM_{10} = particulate matter 10 microns or less in diameter; AAM = Annual Arithmetic Mean; $PM_{2.5}$ = fine particulate matter 2.5 microns or less in diameter; CO = carbon monoxide; mg/m^3 = milligrams per cubic meter; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; km = kilometer; – = No Standard

The USEPA has classified air basins (or portions thereof) as being in “attainment,” “nonattainment,” “maintenance,” or “unclassified” for each criteria air pollutant, based on whether the NAAQS have been achieved. Upon attainment of a standard for which an area was previously designated nonattainment, the area will be classified as a maintenance area. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. The project site is located within the Riverside County portion of the SCAB and, as such, is in an area designated as a nonattainment area for certain pollutants that are regulated under the CAA. Table 2, *South Coast Air Basin Attainment Status*, lists the federal and state attainment status of the SCAB for the criteria pollutants. With respect to federal air quality standards, the USEPA classifies the SCAB as in attainment for PM_{10}, CO, NO_2, SO_2, and lead, and in nonattainment for 8-hour ozone and $PM_{2.5}$. While the SCAB has attained lead standards as a whole, it is considered a partial nonattainment area based on local monitoring locations where lead concentrations exceeded the NAAQS from 2007 to 2009. However, the SCAB, including near-source monitors have achieved the NAAQS from 2012 through 2020 and the project site is not within an area where lead concentrations have historically exceeded the NAAQS (SCAQMD 2022).

Table 2
SOUTH COAST AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	California Designation
Ozone (O_3) (1-hour)	(No federal standard)	Nonattainment
Ozone (O_3) (8-hour)	Extreme Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment (Maintenance)	Attainment
Respirable Particulate Matter (PM_{10})	Attainment (Maintenance)	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Serious Nonattainment	Nonattainment
Nitrogen Dioxide (NO_2)	Attainment (Maintenance)	Attainment
Sulfur Dioxide (SO_2)	Unclassifiable/Attainment	Attainment
Lead	Unclassifiable/Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Attainment
Visibility	(No federal standard)	Attainment

Source: SCAQMD 2022

2.1.3 California Air Quality Regulations

2.1.3.1 California Clean Air Act

The federal CAA allows states to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB is responsible for the coordination and administration of both federal and state air pollution control programs within California, including establishment of the California Ambient Air Quality Standards (CAAQS). CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In addition to the CAAQS set for the criteria air pollutants regulated by the Federal CAA, CARB has established CAAQS for additional pollutants (see Table 1), including sulfates, hydrogen sulfide (H_2S), vinyl chloride and visibility-reducing particles. Table 2 provides the state attainment status of the SCAB for the criteria pollutants. Under state designations, the SCAB is currently in attainment for CO, NO_2, SO_2, and lead, and in nonattainment for ozone, PM_{10}, and $PM_{2.5}$.

2.1.3.2 State Implementation Plan

The CAA requires areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain the NAAQS. The 1990 amendments to the CAA set deadlines for attainment based on the severity of an area's air pollution problem.

SIPs are not single documents—they are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations and federal controls. Many of California's SIPs rely on a core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards the SIP revisions to the USEPA for approval and publication in the Federal Register. The Code of Federal Regulations Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items that are included in the California SIP (CARB 2023c). At any one time, several California submittals are pending USEPA approval.

2.1.4 Local Regulations

2.1.4.1 South Coast Air Quality Management District

Air quality in the SCAB portion of Riverside County is regulated by the SCAQMD. As a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments, and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines when necessary.

Air Quality Management Plan

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs).

On December 2, 2022, the SCAQMD adopted the 2022 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, SCAG, and USEPA). The 2022 AQMP represents a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The plan seeks to achieve multiple goals in partnership with other entities promoting reductions in criteria pollutant, GHGs, and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. Included in the 2022 AQMP are updated strategies and control measures to address the designation of the SCAB as an “extreme” nonattainment area for the 2015 NAAQS 8-hour ozone standard.

To meet the 2015 NAAQS ozone standard, an additional 67 percent reduction of NO_X will be required compared to the reductions forecast to occur by 2037 (as required by current adopted rules and regulations). Achieving the NO_X reductions will require extensive use of zero emission technologies across all stationary and mobile sources. 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 SCAQMD’s control. The region will not meet the NAAQS ozone 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 NAAQS ozone standard (SCAQMD 2022).

The 2022 AQMP, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to CARB, which develops the California SIP. The SIP relies on the same information from SCAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The current federal and state attainment status for the SCAB is presented above, in Table 2.

Rules and Regulations

The following rules promulgated by the SCAQMD would be applicable to construction and/or operation of the project.

Rule 401 – Visible Emissions: Limits the allowable opacity of air contaminant emissions from any single source (SCAQMD 2001).

Rule 402 – Nuisance: Prohibits the discharge of air contaminants, including odors, which cause injury, detriment, nuisance, or annoyance to any considerable number of persons (SCAQMD 1976).

Rule 403 – Fugitive Dust: Requires actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions, including emissions from construction activities. Project construction would be required to implement all applicable fugitive dust best available control measures specified in Table 1 in the rule (SCAQMD 2005).

Rule 1113 – Architectural Coating: Establishes VOC limits for architectural coatings (e.g., paints, stains, preservatives). Effective January 1, 2019, building interior and exterior paint is limited to a maximum VOC content of 50 grams per liter (SCAQMD 2016).

2.2 GREENHOUSE GASES

2.2.1 Climate Change Overview

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The temperature record shows a decades-long trend of warming, with 2016 global surface temperatures ranking as the warmest year on record since 1880. The newest release in long-term warming trends announced the last nine consecutive years (2014-2022) have been the warmest nine years on record. During 2022, an increase of 1.6 degrees Fahrenheit compared to the 1951-1980 average ranked as the fifth warmest year since 1880 (National Aeronautics and Space Administration 2023). GHG and aerosol emissions from human activities are the most significant driver of observed climate change since 1750 (United Nations Intergovernmental Panel on Climate Change [IPCC] 2021). The IPCC Fifth Assessment Report constructed several emission trajectories of GHG emissions needed to stabilize global temperatures and climate change impacts. The statistical models showed a "high confidence" that temperature increase caused by anthropogenic GHG emissions could be kept to less than two degrees Celsius relative to pre-industrial levels if atmospheric concentrations were stabilized at about 450 parts per million (ppm) carbon dioxide equivalent (CO_2e) by the year 2100 (IPCC 2014). As of the Sixth Assessment Report published in 2022, the IPCC determined warming would "likely" exceed 1.5 degrees Celsius and would become difficult to limit to 2 degrees Celsius if it is not already limited by 2030 (IPCC 2022).

2.2.2 Types of Greenhouse Gases

The GHGs defined under California's Assembly Bill (AB) 32 include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Carbon Dioxide. CO_2 is the most important and common anthropogenic GHG. CO_2 is an odorless, colorless GHG. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of CO_2 include burning fuels, such as coal, oil, natural gas, and wood. Data from ice cores indicate that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years. The atmospheric CO_2 concentration in 2010 was 390 ppm, 39 percent above the concentration at the start of the Industrial Revolution (approximately 280 ppm in 1750). As of April 2023, the CO_2 concentration exceeded 420 ppm (National Oceanic and Atmospheric Administration 2023).

Methane. CH_4 is the main component of natural gas used in homes. A natural source of methane is from the decay of organic matter. Geological deposits known as natural gas fields contain methane, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

Nitrous Oxide. N_2O is produced by both natural and human-related sources. N_2O is emitted during agricultural and industrial activities, as well as during the combustion of fossil fuels and solid waste. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic (fatty) acid production, and nitric acid production.

Fluorocarbons. Fluorocarbons are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the 1989 Montreal Protocol.

Sulfur Hexafluoride. SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.

GHGs have long atmospheric lifetimes that range from one year to several thousand years. Long atmospheric lifetimes allow for GHG emissions to disperse around the globe. Because GHG emissions vary widely in the power of their climatic effects, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO_2. For example, a gas with a GWP of 10 is 10 times more potent than CO_2 over 100 years. CO_2e is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e.

The atmospheric lifetime and GWP of selected GHGs are summarized in Table 3, *Global Warming Potentials and Atmospheric Lifetimes*. As indicated below, GWPs range from 1 to 22,800. Although the IPCC has released their Fifth and Sixth Assessment Reports with updated GWPs, CARB reports the Statewide GHG inventory using the Fourth Assessment Report GWPs, which is consistent with international reporting standards. By applying the Fourth Assessment Report GWP ratios, project-related equivalent mass of CO_2, denoted as CO_2e emissions can be tabulated in metric tons (MT) per year.

Table 3
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
HFC-134a	14	1,430
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: IPCC 2007
IPCC = Intergovernmental Panel on Climate Change; GWP = global warming potential; HFC = hydrofluorocarbon; PFC = perfluorocarbon

2.2.3 Federal Greenhouse Gas Regulations

2.2.3.1 Federal Clean Air Act

The U.S. Supreme Court ruled on April 2, 2007, in Massachusetts v. U.S. Environmental Protection Agency, that CO_2 is an air pollutant, as defined under the CAA, and that the USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO_2, CH_4, N_2O, HFC, PFC, and SF_6) threaten the public health and welfare of the American people (USEPA 2023b). This action was a prerequisite to finalizing the USEPA's GHG emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the United States Department of Transportation's National Highway Traffic Safety Administration (NHTSA).

On June 30, 2022, the U.S. Supreme Court decision published in West Virginia v. U.S. Environmental Protection Agency overturned the USEPA's Clean Power Plan rule which cited Section 111(d) of the CAA for authority to set limits on CO_2 emissions from existing coal- and natural-gas-fired power plants. The June 30, 2022 decision does not overturn the April 2, 2007 decision; however, it may limit the USEPA's authority to develop rules limiting GHG emissions without clear congressional authorization.

2.2.3.2 Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the NHTSA worked together on developing a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. The USEPA established the first-ever national GHG emissions standards under the CAA, and the NHTSA established Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking that established standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025.

In December 2021, USEPA issued a new rule formally adopting standards previously proposed in August 2021 for model years 2023 and 2024 and finalizing more stringent standards than previously proposed for model years 2025 and 2026. The rule assumes a 17 percent electric vehicle market penetration by 2026. Although this is a departure from the NHTSA CAFE standards, USEPA did coordinate with NHTSA during development of the new standards. On April 12, 2023, USEPA announced new, more ambitious proposed standards to further reduce harmful air pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027. The proposal builds upon USEPA's final standards for federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026 and leverages advances in clean car technology to result in benefits to Americans ranging from reducing climate pollution, to improving public health, to saving drivers money through reduced fuel and maintenance costs. The proposed standards would phase in over model years 2027 through 2032.

2.2.4 California Greenhouse Gas Regulations

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, renewable energy and energy procurement, building energy, mobile sources, solid waste, water, and other state regulations and goals. The following text describes executive orders (EOs), legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

2.2.4.1 State Climate Change Targets

Executive Order S-3-05

On June 1, 2005, EO S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

Assembly Bill 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed by AB 32 to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions. California statewide GHG emissions dropped below the 2020 GHG limit in 2014 and have remained below the 2020 GHG limit for all reported years since.

Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28 nation European Union. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

Senate Bill 32

Senate Bill (SB) 32, Amendments to the California Global Warming Solutions Action of 2006, extends California's GHG emission reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO S-3-05 of 80 percent below 1990 emissions levels by 2050.

Assembly Bill 1279

Approved by Governor Newsom on September 16, 2022, AB 1279, the California Climate Crisis Act, declares the policy of the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels. AB 1279 anticipates achieving these policies through direct GHG emissions reductions, removal of CO_2 from the atmosphere (carbon capture), and almost complete transition away from fossil fuels.

Senate Bill 905

Approved by Governor Newsom on September 16, 2022, SB 905, Carbon sequestration: Carbon Capture, Removal, Utilization, and Storage Program, requires CARB to establish a Carbon Capture, Removal, Utilization, and Storage Program to evaluate the efficacy, safety, and viability of carbon capture, utilization, or storage technologies and CO_2 removal technologies and facilitate the capture and sequestration of CO_2 from those technologies, where appropriate. SB 905 is an integral part of achieving the state policies mandated in AB 1279.

California Air Resources Board: Scoping Plan

The Scoping Plan is a strategy CARB develops and updates at least one every five years, as required by AB 32. It lays out the transformations needed across California society and economy to reduce emissions and reach climate targets. The current 2022 Scoping Plan is the third update to the original plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 mandate of returning to 1990 levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual. The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly making the case for using multiple tools to meet California's GHG emission targets (CARB 2008). The 2013 Scoping Plan assessed progress toward achieving the 2020 mandate and made the case for addressing short-lived climate pollutants (SLCPs; CARB 2014). The 2017 Scoping Plan also assessed the progress toward achieving the 2020 limit and provided a technologically feasible and cost-effective path to achieving the SB 32 mandate of reducing GHGs by at least 40 percent below 1990 levels by 2030 (CARB 2017).

On December 15, 2022, CARB approved the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan). The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in SLCPs; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon (CARB 2022a).

2.2.4.2 Renewable Energy and Energy Procurement

Senate Bill 1078

SB 1078 (Sher) (September 2002) established the Renewable Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1 percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently revised as described below.

Senate Bill 1368

SB 1368 (September 2006) required the California Energy Commission (CEC) to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the California Public Utilities Commission.

Assembly Bill 1109

Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting, to reduce electricity consumption 50 percent for indoor residential lighting and 25 percent for indoor commercial lighting.

Executive Order S-14-08

EO S-14-08 (November 2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33 percent of their load with renewable energy by 2020. Furthermore, the EO directed state agencies to take appropriate actions to facilitate reaching this target. The California Natural Resources Agency (CNRA), through collaboration with the CEC and California Department of Fish and Wildlife (formerly the California Department of Fish and Game), was directed to lead this effort.

Executive Order S-21-09 and Senate Bill X1-2

EO S-21-09 (September 2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. CARB was further directed to work with the California Public Utilities Commission and CEC to ensure that the regulation builds upon the RPS program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those renewable resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health and can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard. However, this regulation was not finalized because of subsequent legislation (SB X1-2, Simitian, statutes of 2011) signed by Governor Brown in April 2011.

SB X1-2 expanded the RPS by establishing a renewable energy target of 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location.

SB X1-2 applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must meet the renewable energy goals previously listed.

Senate Bill 350

Approved by Governor Brown on October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers resource needs, reduce GHG emissions, and increase the use of clean energy.

Senate Bill 100

Approved by Governor Brown on September 10, 2018, SB 100 extends the renewable electricity procurement goals and requirements of SB 350. SB 100 requires that all retail sale of electricity to California end-use customers be procured from 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

Senate Bill 1020

SB 1020 (September 2022) revises the standards from SB 100, requiring the following percentage of retail sales of electricity to California end-use customers come from eligible renewable energy resources and zero-carbon resources:

- 90 percent by December 31, 2035;
- 95 percent by December 31, 2040; and
- 100 percent by December 31, 2045.

2.2.4.3 Building Energy

California Energy Code

California Code of Regulations (CCR) Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space and water heating) results in GHG emissions.

The standards include a basic set of mandatory requirements that apply to all buildings. Other requirements can be achieved through the prescriptive approach or performance approach. The prescriptive approach is comprised of specific components designed to meet a prescribed minimum building efficiency. Alternatively, the performance approach allows the use of an energy simulation model to determine when a proposed building's design features would bring it into compliance with energy efficiency standards.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Title 24 standards went into effect on January 1, 2023. The 2022 update to the Building Energy Efficiency Standards encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more (CEC 2022).

California Green Building Standards Code

The California Green Building Standards Code (CALGreen; CCR Title 24, Part 11) is a code with mandatory requirements for all nonresidential buildings (including industrial buildings) and residential buildings for which no other state agency has authority to adopt green building standards. The current 2022 CALGreen Standards for new construction of, and additions and alterations to, residential and nonresidential buildings went into effect on January 1, 2023 (California Building Standards Commission 2022).

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

CALGreen contains requirements for storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

2.2.4.4 Mobile Sources

Assembly Bill 1493 and Advanced Clean Cars

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepared California to merge its rules with the federal CAFE rules for passenger vehicles (CARB 2013).

In January 2012, CARB approved Advanced Clean Cars I, a new emissions-control program for model years 2017 through 2025 including low emissions vehicle and zero-emissions vehicle criteria. The Advanced Clean Cars II regulations were adopted in 2022, imposing the next level of low-emission and zero-emission vehicle standards for model years 2026 through 2035 that contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality targets.

By 2035 all new passenger cars, trucks, and SUVs sold in California will be zero emissions. The Advanced Clean Cars II regulations take the state's already growing zero-emission vehicle market and robust motor vehicle emission control rules and augments them to meet more aggressive tailpipe emissions standards and ramp up to 100 percent zero-emission vehicles.

Executive Order S-01-07

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act of 2008, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities.

Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPOs). CARB periodically reviews and updates the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG emission targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate alternative planning strategy (APS) to meet the targets. The APS is not a part of the RTP. Qualified projects consistent with an approved SCS or APS categorized as "transit priority projects" would receive incentives to streamline CEQA processing. SCAG is the County's local MPO and has responded to the requirements of SB 375 with the preparation of an RTP/SCS (SCAG 2020).

Senate Bill 743

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changes transportation impact analysis as part of CEQA compliance. These changes include the elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts for land use projects and plans in California. Further, parking impacts will not be considered significant impacts on the environment for select development projects within infill areas with nearby frequent transit service. According to the legislative intent contained in SB 743, these changes to current practice were necessary to balance the needs of congestion management more appropriately with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG emissions.

Executive Order N-79-20

EO N-79-20, signed by Governor Newsom on September 23, 2020, establishes three goals for implementation of zero emissions vehicles in California: first, 100 percent of in-state sales of new passenger cars and trucks will be zero-emissions by 2035; second, 100 percent of medium- and heavy-duty vehicles in the state will be zero-emissions vehicles by 2045 for all operations where feasible, and by 2035 for drayage trucks; and third, 100 percent of off-road vehicles and equipment will be zero emissions by 2035 where feasible.

2.2.4.5 Solid Waste

Assembly Bill 939

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board to oversee a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25 percent by 1995 and 50 percent by the year 2000.

Assembly Bill 341

The state legislature enacted AB 341 (California Public Resource Code Section 42649.2), amending the Integrated Waste Management Act to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle conducted several general stakeholder workshops and several focused workshops and in August 2015 published a discussion document titled AB 341 Report to the Legislature, which identifies five priority strategies that CalRecycle believes would assist the state in reaching the 75 percent goal by 2020, legislative and regulatory recommendations, and an evaluation of program effectiveness (CalRecycle 2019).

Assembly Bill 1826

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

Senate Bill 1383

SB 1383 (Chapter 395, Statutes of 2016) establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. CalRecycle was granted the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025 (CalRecycle 2019).

2.2.4.6 Water

Executive Order B-29-15

In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Executive Order B-37-16

Issued May 2016, EO B-37-16 directed the State Water Resources Control Board (SWRCB) to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state. The SWRCB also developed a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25 percent reduction called for in EO B-29-15. The SWRCB and Department of Water Resources were required to develop new, permanent water use targets that build upon the existing state law requirements that the state achieve a 20 percent reduction in urban water usage by 2020. EO B-37-16 also specifies that the SWRCB permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.

Executive Order N-10-21

In response to a state of emergency due to severe drought conditions, EO N-10-21 (July 2021) called on all Californians to voluntarily reduce their water use by 15 percent from their 2020 levels. Actions suggested in EO N-10-21 include reducing landscape irrigation, running dishwashers and washing machines only when full, finding and fixing leaks, installing water-efficient showerheads, taking shorter showers, using a shut-off nozzle on hoses, and taking cars to commercial car washes that use recycled water.

2.2.4.7 Other State Actions

Senate Bill 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (Governor's Office of Planning and Research 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4(a)). The Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)). The Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009).

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4(a)). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent a 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; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

Executive Order S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009, and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014. To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: Agriculture, Biodiversity and Habitat, Emergency Management, Energy, Forestry, Ocean and Coastal Ecosystems and Resources, Public Health, Transportation, and Water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016. In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency.

2.2.5 Regional GHG Emission Policies and Plans

2.2.5.1 SCAG Regional Transportation Plan/Sustainable Communities Strategy

SCAG is the regional planning agency and MPO for the counties of Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial, and addresses regional issues relating to transportation, the economy, community development, and the environment. As required by SB 375, SCAG prepares its RTP/SCS for long-range regional planning related to mobility and housing. The land use, housing, and transportation strategies included in the SCS are intended to achieve GHG emission reduction targets.

On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt the 2020–2045 RTP/SCS (Connect SoCal), which builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern (SCAG 2020). Connect SoCal outlines more than $638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. CARB accepted the determination that the 2020-2045 RTP/SCS would meet the applicable 2035 GHG emissions reduction targets for automobiles and light trucks as established by CARB.

The SCAG RTP/SCS is updated every four years and the draft plan for Connect SoCal 2024 is available for public review and comment through Jan. 12, 2024. The draft Connect SoCal 2024 plan outlines a vision for a more resilient and equitable future, with policies and strategies for achieving the region's shared goals through 2050. The plan was developed through a four-year planning process involving rigorous technical analysis, extensive stakeholder engagement and robust policy discussions with local elected leaders.

2.2.5.2 Western Riverside Council of Governments Climate Action Plan

The twelve cities of the Western Riverside Council of Governments (WRCOG), which includes the City of Wildomar, adopted a Subregional Climate Action Plan (CAP) in September 2014. The WRCOG CAP provides a 2010 baseline inventory of GHG emissions for the subregion cities of 5,834,400 MT of CO_2e. The WRCOG CAP established a target of reducing subregional GHG emissions 15 percent below 2010 levels by 2020 and 49 percent below 2010 levels by 2035.

To achieve the 2020 reduction target, the WRCOG CAP identifies 14 State and regional measures, 3 local energy sector measures, 18 local transportation sector measures, and 2 solid waste sector measures. The WRCOG CAP does not identify GHG reduction measures for achieving goals beyond 2020, when the project would be implemented (WRCOG 2014).

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The project site is in the SCAB, which consists of all or part of four counties: Los Angeles, San Bernardino, Riverside, and Orange. The distinctive climate of the SCAB is determined by its terrain and geographic location. The SCAB is a coastal plain with connecting broad valleys and low hills. It is bound by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light, average wind speeds.

The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. Winds in the project area are usually driven by the dominant land/ sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night, the wind generally slows and reverses direction traveling toward the sea. Local canyons can also alter wind direction, with wind tending to flow parallel to the canyons. The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. High pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and resulting in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog. The basin-wide occurrence of inversions at 3,500 feet above mean sea level or less averages 191 days per year (SCAQMD 1993).

The predominant wind direction in the vicinity of the project is from the southwest, southeast, and northwest, and the average wind speed is approximately three mph (SCAQMD 2023a). The annual average maximum temperature in the project area is approximately 81°F, and the annual average minimum temperature is approximately 47°F. Total precipitation in the project area averages approximately 12 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center 2016).

3.2 SENSITIVE RECEPTORS

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: adults over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptor locations. Examples of these sensitive receptor locations are residences, schools, hospitals, and daycare centers.

The closest existing sensitive receptor location to the project site is the single-family residence located north of the project site, with an outdoor use area approximately 45 feet from the project site boundary. An additional single-family residence is located to the east of Cherry Street and has an outdoor use area approximately 70 feet from the project site boundary (see Figure 2). The closest school to the project site is Elsinore High School, approximately 1,700 feet west of the project site.

3.3 AIR QUALITY

3.3.1 Criteria Pollutants

3.3.1.1 Attainment Designations

Attainment designations are discussed further in Section 2.1 and Table 2. The SCAB is a federal and state nonattainment area for 8-hour ozone and $PM_{2.5}$. The SCAB is also a state nonattainment area for 1-hour ozone and PM_{10}.

3.3.1.2 Monitored Air Quality

The SCAQMD maintains monitoring stations to measure ambient concentrations of pollutants in the SCAB. The nearest monitoring station, approximately three miles west of the project site, is the Lake Elsinore monitoring station. Table 4, *Air Quality Monitoring Data*, presents a summary of the ambient pollutant concentrations monitored at the Lake Elsinore air quality monitoring station during the most recent three years (2020 through 2022) for which the SCAQMD has reported data. The station measured acceptable levels of NO_2 in all years and of PM_{10} for 2021 and 2022. The state and federal ozone standards were violated multiple times each year and the PM_{10} federal standard was violated once in 2020. Insufficient data were available to report the number of exceedances of state PM_{10} standards and federal $PM_{2.5}$ standards.

Table 4
AIR QUALITY MONITORING DATA

Pollutant	2020	2021	2022
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.130	0.118	0.121
Days above 1-hour state standard (>0.09 ppm)	18	18	17
Maximum 8-hour concentration (ppm)	0.100	0.097	0.091
Days above 8-hour state standard (>0.070 ppm)	54	44	37
Days above 8-hour federal standard (>0.070 ppm)	54	44	37
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour concentration (μg/m^3)	192.4	90.0	91.8
Days above state standard (>50 μg/m^3)	*	*	*
Days above federal standard (>150 μg/m^3)	1	0	0
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration (μg/m^3)	41.6	28.8	16.2
Days above federal standard (>35 μg/m^3)	*	*	*
Annual average(μg/m^3)	7.2	6.9	5.8
Exceed state and federal annual standard (12 μg/m^3)	No	No	No

Pollutant	2020	2021	2022
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.044	0.044	0.037
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Annual average (ppm)	0.007	0.007	0.007
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No

Source: CARB 2023d
*Indicates insufficient data available
ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter

3.4 GREENHOUSE GASES

To evaluate and reduce the potential adverse impact of global climate change, international, state, and local organizations have conducted GHG inventories to estimate their levels of GHG emissions and removals. The following summarizes the results of these global, national, state, countywide, and local GHG inventories.

In 2019, total GHG emissions worldwide were estimated at 49,881 million metric tons (MMT) of CO_2e emissions (World Resource Institute [WRI] 2023). The U.S. contributed the second largest portion (11.7 percent) of global GHG emissions in 2019. The total for U.S. GHG emissions was 5,819 MMT CO_2e in 2019. On a national level, approximately 31 percent of U.S. GHG emissions were associated with transportation and about 34 percent were associated with electricity generation (WRI 2023).

CARB performs statewide GHG inventories. The inventory is divided into six broad sectors: agriculture and forestry, commercial, electricity generation, industrial, residential, and transportation. Emissions are quantified in MMT CO_2e. Table 5, *California Greenhouse Gas Emissions by Sector*, shows the estimated statewide GHG emissions for the years 1990, 2000, 2010, and 2020.

Table 5
CALIFORNIA GREENHOUSE GAS EMISSIONS BY SECTOR

Sector	Emissions (MMT CO_2e)			
	1990	2000	2010	2020
Agriculture and Forestry	18.9 (4%)	30.8 (7%)	33.6 (8%)	31.6 (9%)
Commercial	14.4 (3%)	14.6 (3%)	20.1 (5%)	22.0 (6%)
Electricity Generation	110.5 (26%)	105.2 (23%)	90.6 (20%)	59.8 (16%)
Industrial	105.3 (24%)	101.2 (22%)	97.9 (22%)	85.3 (23%)
Residential	29.7 (7%)	31.5 (7%)	32.1 (7%)	30.7 (8%)
Transportation	150.6 (35%)	178.5 (39%)	168.0 (38%)	139.9 (38%)
Unspecified Remaining	1.3 (<1%)	0.0 (0%)	0.0 (0%)	0.0 (0%)
TOTAL	430.7	461.9	442.3	369.2

Source: CARB 2007 and CARB 2022b
MMT = million metric tons; CO_2e = carbon dioxide equivalent

As shown in Table 5, statewide GHG emissions totaled approximately 431 MMT CO_2e in 1990, 462 MMT CO_2e in 2000, 442 MMT CO_2e in 2010, and 369 MMT CO_2e in 2020. Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

The WRCOG CAP provided a 2010 baseline inventory of GHG emissions and concluded that emissions from the subregion cities totaled 5,834,400 MT of CO_2e. The 2010 emissions inventory for the WRCOG cities is presented in Table 6, *Western Riverside Council of Governments Greenhouse Gas Emissions by Sector*. While the sectors included in this inventory are somewhat different from those in the statewide inventory, the results similarly demonstrate that transportation related GHG emissions contributed the most, followed by emissions associated with energy use.

Table 6
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS GREENHOUSE GAS EMISSIONS BY SECTOR

Sector	2010 Baseline Emissions ($MT\ CO_2e$)	Percent of Total
Transportation	3,317,387	56.9%
Commercial/Industrial Energy	1,226,479	21.0%
Residential Energy	1,167,843	20.0%
Waste	112,161	1.9%
Wastewater	10,531	0.2%
TOTAL	5,834,400	100%

Source: WRCOG 2014
MT = metric tons; CO_2e = carbon dioxide equivalent

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Criteria pollutant and GHG emissions for the project were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The calculation methodology and default input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices (CAPCOA 2022). The input data and subsequent construction and operation emission estimates for the proposed project are discussed below. CalEEMod output files for the project are included as Appendix A to this report.

4.1.1 Construction Emissions

4.1.1.1 Construction Activities

The quantity, duration, and intensity of construction activity influence the amount of construction emissions and related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of: (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod; and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Construction emissions were estimated based on the timeline provided by the project applicant, which assumes construction would commence in August 2025 and last nine months. The length of each phase for on-site improvements was based on CalEEMod defaults, except for grading, which was increased to newly suggested CalEEMod defaults (Ramboll 2023), and building construction, which was decreased to achieve the nine-month construction schedule. The roadway improvements schedule was provided by the project engineer. Construction is assumed to occur six days per week with equipment operating up to eight hours per day. The construction schedule assumed in the modeling is shown in Table 7, *Anticipated Construction Schedule*.

Table 7
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period Start	Construction Period End	Number of Working Days
Site Preparation	8/1/2025	8/12/2025	10
Grading	8/13/2025	9/16/2025	30
Building Construction	9/17/2025	3/14/2026	154
Paving	3/15/2026	4/7/2026	20
Architectural Coating	4/8/2026	4/30/2026	20
Roadway Widening – Grubbing and Land Clearing	8/1/2025	8/12/2025	10
Roadway Widening – Grading and Excavation	8/13/2025	9/16/2025	30
Roadway Widening – Drainage, Utilities, Sub-grade	9/17/2025	12/10/2026	73
Roadway Widening – Paving	1/15/2026	3/7/2026	45

Source: CalEEMod (complete data is provided in Appendix A).

4.1.1.2 Construction Off-Road Equipment

Construction would require the use of heavy off-road equipment. Construction equipment assumptions are based on default values in CalEEMod except for the addition of off-highway trucks during the site preparation and grading phases to account for the use of water trucks required for dust suppression. The number and hours of each piece of equipment required during building construction was increased proportionally to account for the reduced construction period. Table 8, *Construction Equipment Assumptions*, presents a summary of the equipment that is assumed to be involved in each stage of construction.

Table 8
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment	Horsepower	Number	Hours/Day
Site Preparation			
Rubber Tired Dozers	367	3	8
Off-Highway Trucks	376	1	6
Tractors/Loaders/Backhoes	84	4	8

Equipment	Horsepower	Number	Hours/Day
Grading			
Excavators	36	1	8
Graders	148	1	8
Off-Highway Trucks	376	1	6
Rubber Tired Dozers	367	1	8
Tractors/Loaders/Backhoes	84	3	8
Building Construction			
Cranes	367	2	5.2
Forklifts	82	5	7.2
Generator Sets	14	2	6
Tractors/Loaders/Backhoes	84	4	7.8
Welders	46	2	6
Paving			
Pavers	81	2	8
Paving Equipment	89	2	8
Rollers	36	2	8
Architectural Coating			
Air Compressors	37	1	6
Roadway Widening – Grubbing and Land Clearing			
Crawler Tractors	87	1	8
Excavators	36	2	8
Signal Boards	6	1	8
Roadway Widening – Grading and Excavation			
Crawler Tractors	87	1	8
Excavators	36	3	8
Graders	148	2	8
Rollers	36	2	8
Rubber Tired Loaders	150	1	8
Scrapers	423	2	8
Signal Boards	6	1	8
Tractors/Loaders/Backhoes	84	4	8
Roadway Widening – Drainage, Utilities, Sub-grade			
Air Compressors	37	1	8
Generator Sets	14	1	8
Graders	148	1	8
Plate Compactors	8	1	8
Pumps	11	1	8
Rough Terrain Forklifts	96	1	8
Scrapers	423	1	8
Signal Boards	6	1	8
Tractors/Loaders/Backhoes	84	3	8
Roadway Widening – Paving			
Pavers	81	1	8
Paving Equipment	89	1	8
Rollers	36	2	8
Signal Boards	6	1	8
Tractors/Loaders/Backhoes	84	3	8

Source: CalEEMod (output is provided in Appendix A)

4.1.1.3 Construction On-Road Trips

Worker commute trips, haul truck trips, and vendor delivery trips were modeled based on CalEEMod defaults and the addition of suggested vendor trips (Ramboll 2023). Worker trips are anticipated to vary between 5 and 54 trips per day, depending on construction activity. Vendor delivery trips would occur 1 to 3 times per phase, except for building construction and roadway widening grading when vendor delivery trips would occur 11 times and 1 time per day, respectively. Soil export during grading would result in 17 one-way haul trips per day and asphalt import would require 29 one-way trips per day during paving. The CalEEMod default trip distances for worker, vendor, and haul trips were used in the model.

4.1.2 Operation Emissions

Operational emissions were estimated using CalEEMod. Operational sources of emissions include area, energy, mobile, solid waste, and water/wastewater sources. Operational emissions were calculated for 2027, the earliest anticipated full year of operation.

4.1.2.1 Area Source Emissions

Area sources include emissions from landscaping equipment, the use of consumer products, the reapplication of architectural coatings for maintenance, and hearths. Emissions associated with area sources were estimated using the CalEEMod default values except for hearths, as the project would not include wood burning stoves or fireplaces, or natural gas fireplaces. Per SCAQMD Rule 1113, architectural coatings for buildings would be limited to VOC contents of 50 grams per liter and for parking areas would be limited to VOC contents of 100 grams per liter.

4.1.2.2 Energy Emissions

The project would use electricity for lighting, heating, and cooling. Electricity would be supplied by Southern California Edison and natural gas would be supplied by Southern California Gas. Direct emissions from the burning of natural gas may result from furnaces, hot water heaters, and cooking appliances. Electricity generation typically entails the combustion of fossil fuels, including natural gas and coal, which is then transmitted to end users. A building’s electricity use is thus associated with the off-site or indirect emission of GHGs at the source of electricity generation (power plant).

CalEEMod default energy values are based on the CEC-sponsored Commercial Sector Forecast and Residential Appliance Saturation Survey studies, which identify energy use by building type and climate zone (CAPCOA 2022). The emissions generated by production of this energy are based on the forecasted emission factors for Southern California Edison and Southern California Gas provided in CalEEMod. The project’s energy demand uses the CalEEMod defaults for the proposed land uses, excluding the proposed car wash.

Information from professional car wash industry surveys and reports was used to estimate the energy requirements for the proposed car wash. The annual number vehicles washed for the project was estimated based on a 2015 industry survey which reported an average of approximately 80,000 vehicles per year for conveyor car washes (Professional Car Washing & Detailing 2017). Based on cost averages of $0.50 per vehicle for electricity and an average electricity cost of $.1026 per kilowatt-hour (kWh) for commercial customers in the U.S. in 2013, the energy requirements for the car wash were estimated to be 4.87 kWh per vehicle (Car Wash Advisory 2014; U.S. Energy Information Administration 2023). In total, this would result in annual electricity use of approximately 389,864 kWh per year.

4.1.2.3 Vehicular (Mobile) Sources

Operational emissions from mobile source emissions are associated with vehicle trip generation and trip length. According to the project's traffic analysis, the project is anticipated to reduce vehicle miles traveled (VMT) in the region (Trames Solutions Inc. 2024). As a local-serving land use and commercial development under 50,000 square feet, the project is considered to have a less than significant impact on VMT. Comparable hotels to the one proposed by the project are located three miles to the north and six miles to the south. The addition of the proposed hotel along I-15 would reduce VMT required to access these hotels. Similarly, the addition of commercial uses in proximity to residential land uses tends to shorten trips, thereby reducing VMT. As the project is anticipated to reduce VMT in the region, mobile emissions in the vicinity would also be reduced. Therefore, the following analysis does not consider the generation of new vehicle trips travelling to the project site as resulting in new mobile emission for the region.

4.1.2.4 Solid Waste Sources

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. The default solid waste generation rates and gas treatment values from CalEEMod were used in this analysis.

4.1.2.5 Water and Wastewater Sources

The amount of water used, and wastewater generated, by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both methane and nitrous oxide. Energy use related to water and wastewater sources for land uses other than the car wash were generated based on CalEEMod defaults.

According to a report on car wash profits, typical freshwater use for a car wash without water reclamation is up to 65 gallons per vehicle (Car Wash Advisory 2014). California AB 2230, signed by the Governor in 2012, requires that any conveyor car wash installed after 2013 reuse a minimum of 60 percent of the water previously used in the wash or rinse cycles. Therefore, the proposed car wash would reclaim at least 39 gallons per vehicle for a total water use of 26 gallons per vehicle. Based on 80,000 vehicles washed per year, the estimated water use for the proposed car wash would be 2,080,000 gallons per year.

4.1.3 Localized Significance Threshold Methodology

As part of the SCAQMD's environmental justice program, more attention has been focused on localized air quality effects. Also, while regional impact analysis is based on attaining or maintaining regional emissions standards, localized impact analysis compares the concentration of a pollutant at a receptor site to a health-based standard.

SCAQMD has developed a localized significance threshold (LST) methodology and mass rate look-up tables by source receptor area (SRA) that can be used by public agencies to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard; they are developed based on the ambient concentrations of that pollutant for each SRA (SCAQMD 2009). The LST methodology translates the concentration standards into emissions thresholds that are a function of project site area, source to receptor distance, and the location within the SCAB. The LST methodology is recommended to be limited to projects of 5 acres or less. For projects that exceed 5 acres, such as the proposed project, the 5-acre LST look-up values can be used as a screening tool for operational emissions to determine which pollutants require detailed analysis. This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and over-predicts potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). For construction emissions for projects that exceed 5 acres, SCAQMD guidance allows the LST look-up table corresponding to the maximum acres per day disturbed during construction, as calculated by CalEEMod (SCAQMD 2023b). If a project exceeds the LST look up values, then the SCAQMD recommends that project-specific localized air quality modeling be performed.

The proposed project is within SRA 25, Lake Elsinore. The closest existing sensitive receptor location to the project site is a single-family development located to the north, approximately 45 feet from the limits of disturbance. Therefore, the LSTs in SRA 25 with receptors located within 25 meters (82 feet) are used in this analysis.

4.1.4 Dispersion Modeling

Where daily localized criteria pollutant emissions exceeded the SCAQMD LSTs, localized impacts were analyzed using dispersion modeling to determine if the SCAQMD construction period concentration thresholds would be exceeded. The emissions were calculated utilizing the CalEEMod output data for on-site emissions. Localized pollutant concentrations were modeled using Lakes AERMOD View version 12.0.0. The Lakes program utilizes USEPA’s AERMOD gaussian air dispersion model version 23132. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the release heights of the emission sources (i.e., complex terrain). AERMOD is the USEPA’s regulatory dispersion model specified in the Guideline for Air Quality Methods (Code of Federal Regulations, Title 40, Part 51). AERMOD is recommended for use by SCAQMD, which has established its own modeling guidance for the model. Modeling was completed using the methodology described in SMAQMD’s LST Methodology (SCAQMD 2008a) and Modeling Guidance for AERMOD (SCAQMD 2023a). Dispersion modeling input calculation sheets and output reports are included in Appendix B to this report.

4.1.4.1 Source Parameters

On-site fugitive dust emissions were modeled as an area source defined as a single polygon encompassing the entire project site. In accordance with the LST Methodology, the areas source initial vertical dimension was set to one meter and the release height was set to zero (dust emissions primarily released at ground level from equipment blades and wheels).

In accordance with the LST methodology, on-site equipment exhaust emissions were modeled as a set of elevated volume sources. Corresponding to the 5-acre site methodology, the project modeling used adjacent volume sources with 20-meter by 20-meter horizontal dimensions to fill the project site (54 total volume sources). For each volume source, the initial vertical dimension was set to 1.4 meters and the release height was set to 5 meters in accordance with the LST Methodology. Exhaust emissions were divided equally among the volume sources.

Per the CalEEMod default equipment use of 8 hours per day, 6 days per week per the project applicant, and LST Methodology guidance, variable emissions were used were used with emissions set to occur equally during the period from 8:00 a.m. to 4:00 p.m. Monday through Saturday.

4.1.4.2 Source Emissions

The standard dispersion model inputs for determining ground-level concentrations of pollutants are the maximum hourly and the average annual. The hourly PM_{10} and $PM_{2.5}$ emissions were calculated from the highest daily emissions reported by CalEEMod (during site preparation and roadway clearing and grubbing in 2025). Average annual emissions were calculated from the highest annual construction emissions reported by CalEEMod (for 2025), and assuming the work would commence on August 1 (as described above) with a total of 131 workdays during 2025.

4.1.4.3 Meteorological Data

The AERMOD dispersion modeling program requires the following hourly surface meteorological data: wind speed, wind direction, ambient temperature, and opaque cloud cover. These meteorological variables are used to estimate air dispersion of pollutants in the atmosphere. Wind speed determines how rapidly pollutants are diluted and influences the rise of the emission plume in the air, thus affecting downwind pollutant concentrations. Wind direction determines where pollutants will be transported. The opaque cloud cover and upper air sounding data are used in calculations to determine other important dispersion parameters including atmospheric stability (a measure of turbulence and the rate at which pollutants disperse laterally and vertically) and mixing height (the vertical depth of the atmosphere within which dispersion occurs). The greater the mixing height is, the larger the volume of atmosphere is available to dilute the pollutant concentration.

The SCAQMD provides pre-processed meteorological data suitable for use with AERMOD for projects within the SCAB. The available data set most representative of conditions in the project vicinity was from the Lake Elsinore station, approximately 4.7 miles northwest of the project site. The Lake Elsinore set includes 5 years of data collected from 2012 to 2016. A wind rose for the Lake Elsinore station shows an average wind speed of 3 mph with common wind directions from the southwest, southeast, and northwest. The wind rose graphic is included in Appendix B to this report.

4.1.4.4 Terrain Data

United States Geological Survey Digital Elevation Model files with a 30-meter resolution covering an area approximately one kilometer around the project site were used in the model to cover the analysis area. Terrain data were imported to the model using AERMAP (a terrain pre-processing program for AERMOD).

4.1.4.5 Receptor Modeling

To develop isopleths (linear contours showing equal levels of concentration), receptors were placed in a cartesian grid 500 meters by 500 meters (approximately 1,640 feet by 1,640 feet) in size, centered on the project site with a grid spacing of 20 meters (65 feet). This receptor grid placement is lower than the SCAQMD recommended maximum grid spacing of 30 meters for facilities between 4 and 10 acres

(SCAQMD 2023a). Because localized concentration of criteria pollutants beyond the project boundary are of primary concern, receptors were also placed along the project boundary at 10-meter (33 feet) intervals, and additional discrete receptors were placed in the outdoor use spaces closest to the project site for two residences (one approximately 45 feet north of the project site and another approximately 70 feet east of the project site across Cherry Street). In total, 758 receptor locations were included in the model to ensure smooth and accurate isopleths are yielded and the maximum pollutant concentrations at the project boundary and nearby residences are captured.

In accordance with SCAQMD modeling guidance, to account for urban heat island effects, urban dispersion coefficients were selected in the model using the population of Riverside County (SCAQMD 2023a).

4.2 SIGNIFICANCE CRITERIA

4.2.1 Air Quality

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's CEQA Guidelines Appendix G. A significant air quality and/or odor impact could occur if the implementation of the proposed project would:

1. Conflict with or obstruct implementation of the SCAQMD AQMP, or applicable portions of the SIP;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is non-attainment under an applicable NAAQS or CAAQS;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. The SCAQMD has established significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions. The significance thresholds are updated, as needed, to appropriately represent the most current technical information and attainment status in the SCAB. Table 9, *SCAQMD Thresholds of Significance*, presents the most current significance thresholds, including regional daily thresholds for short-term construction and long-term operational emissions; maximum incremental cancer risk and hazard indices for TACs; and maximum ambient concentrations for exposure of sensitive receptors to localized pollutants. A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant effect on air quality.

Table 9
SCAQMD THRESHOLDS OF SIGNIFICANCE

Pollutant	Construction	Operation
Mass Daily Thresholds (pounds per day)		
VOC	75	55
NO_X	100	55
CO	550	550
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
Lead	3	3
Toxic Air Contaminants		
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Ambient Air Quality for Criteria Pollutants		
NO_2	1-hour average ≥ 0.18 ppm Annual average ≥ 0.03 ppm (state) or ≥0.0534 ppm (federal)	
CO	1-hour average ≥ 20.0 ppm (state) or 35 ppm (federal) 8-hour average ≥ 9.0 ppm (state/federal)	
PM_{10}	24-hour average ≥ 10.4 μg/m^3 (construction) or ≥ 2.5 μg/m^3 (operation) Annual average ≥ 1.0 μg/m^3	
$PM_{2.5}$	24-hour average ≥ 10.4 μg/m^3 (construction) or ≥ 2.5 μg/m^3 (operation)	
SO_2	1-hour average ≥ 0.025 ppm (state) or ≥ 0.075 ppm (federal) 24-hour average ≥ 0.04 ppm	

Source: SCAQMD 2023c
VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = respirable particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less; SO_X = sulfur oxides; TACs = toxic air contaminants; NO_2 = nitrogen dioxide; ppm = parts per million; μg/m^3 = micrograms per cubic meter

4.2.2 Greenhouse Gases

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. Therefore, the potential for a significant GHG emissions impact is limited to cumulative impacts.

According to Appendix G of the CEQA Guidelines, a project would have a significant environmental impact if it would:

(1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

(2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The determination of significance is governed by CEQA Guidelines 15064.4, entitled "Determining the Significance of Impacts from Greenhouse Gas Emissions." CEQA Guidelines Section 15064.4(a) states, "[t]he determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to … [use a quantitative model or qualitative model]" (emphasis added). In turn, CEQA Guidelines Section 15064.4(b) clarifies that a lead agency should consider "Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project." Therefore, consistent with CEQA Guidelines Section 15064.4, the GHG emissions analysis for the project appropriately relies upon a threshold based on the exercise of careful judgement and believed to be appropriate in the context of this project.

On December 5, 2008, the SCAQMD Governing Board adopted their Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans for projects where the SCAQMD is the lead agency (SCAQMD 2008b). The SCAQMD's interim GHG significance threshold uses a tiered approach to determining significance. Tier 1 consists of evaluating whether the project qualifies for any applicable exemption under CEQA. Tier 2 consists of determining whether the project is consistent with a GHG emission reduction plan that may be part of a local general plan, for example. Tier 3 establishes a screening significance threshold level to determine significance using a 90 percent emission capture rate approach, which corresponds to 10,000 MT CO_2e emissions per year for stationary sources at industrial facilities. Tier 4, to be based on performance standards, is yet to be developed. Under Tier 5 the project proponent would allow offsets to reduce GHG emission impacts to less than the proposed screening level.

The SCAQMD has continued to consider adoption of significance thresholds for residential and commercial development projects. The most recent proposal issued in September 2010 uses the following tiered approach to evaluate potential GHG emission impacts from various uses. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e/year), commercial projects (1,400 MT CO_2e/year), and mixed-use projects (3,000 MT CO_2e/year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e/year would be used for all non-industrial projects. These thresholds have not been adopted by the SCAQMD or distributed for widespread public review and comment, and the working group tasked with developing the thresholds has not met since September 2010. The future schedule and likelihood of threshold adoption is uncertain.

As the City does not currently have any approved quantitative thresholds related to GHG emissions, the quantitative analysis provided herein relies upon the proposed SCAQMD screening threshold for general development projects of 3,000 MT CO_2e per year (SCAQMD 2010).

5.0 AIR QUALITY IMPACT ANALYSIS

This section evaluates potential direct impacts of the proposed project related to air pollutant emissions. Project-level air quality modeling was completed as part of this analysis. Complete modeling results are included as Appendix A of this report with detailed dispersion modeling results included as Appendix B.

5.1 ISSUE 1: CONFLICTS WITH AIR QUALITY PLANS

The SCAQMD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SCAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the AQMP, prepared by the SCAQMD for the region. SCAG has prepared the RTP/SCS, a long-range transportation plan that uses growth forecasts to project trends out over a 20-year period to identify regional transportation strategies to address mobility needs. These growth forecasts form the basis for the land use and transportation control portions of the AQMP. These documents are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. Both the RTP/SCS and AQMP are based, in part, on projections originating with County and City General Plans.

The two principal criteria for determining conformance to the AQMP are:

1. Whether the project would result in an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards; and

2. Whether the project would exceed the assumptions in the AQMP.

With respect to the first criterion, the analyses presented in Section 5.2, below, demonstrate that the project would not generate short-term or long-term emissions that could potentially cause an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards.

With respect to the second criterion, the project is consistent with the Commercial Retail use designated by the General Plan Land Use Element for the site. The project proposes commercial uses that are anticipated to reduce VMT in the area where residences currently exist. Implementation of the project would not result in population or employment increases that would exceed the growth projection assumptions in the AQMP.

Because the project would not generate population and employment growth beyond the levels assumed for the region, pursuant to SCAQMD guidelines, the proposed project is considered consistent with the region's AQMP. As such, proposed project-related emissions are accounted for in the AQMP, which is crafted to bring the basin into attainment for all criteria pollutants. Accordingly, the proposed project would be consistent with the emissions projections in the AQMP, thus resulting in a less than significant impact.

5.2 ISSUE 2: CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SCAB. The region is a federal and/or state nonattainment area for ozone, PM_{10} and $PM_{2.5}$. In accordance with CEQA Guidelines Section 15064(h)(3), the SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State CAAs. If a project conflicts with the AQMP, which is intended to bring the SCAB into attainment for all criteria pollutants, that project can be considered cumulatively considerable. Additionally, if the mass regional emissions calculated for a project exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable state and national ambient air quality standards, that project can be considered cumulatively considerable. As discussed in Issue 1, above, the project would not conflict with or obstruct implementation of the AQMP.

The project would generate criteria pollutants and precursors in the short-term during construction and in the long-term during operation. To determine whether a project would result in cumulatively considerable emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, a project's emissions are evaluated based on the quantitative emission thresholds established by the SCAQMD (as shown in Table 9).

5.2.1 Construction Emissions

The project's construction emissions were estimated using the CalEEMod model as described in Section 4.1.1. Additional details of phasing, construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

The results of the calculations for project construction are shown in Table 10, *Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SCAQMD thresholds. These calculations do not account for any fugitive dust control measures required by SCAQMD regulations.

Table 10
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	3.7	33.8	33.9	0.1	21.4	11.5
Grading	2.2	19.7	21.8	<0.1	8.5	4.3
Building Construction[1]	1.8	16.1	21.6	<0.1	1.1	0.7
Paving[1]	1.2	9.3	11.5	<0.1	1.1	0.5
Architectural Coating	16.8	0.9	1.5	<0.1	0.1	0.0
Roadway Widening – Grubbing and Land Clearing	0.5	4.3	5.3	<0.1	0.9	0.3
Roadway Widening – Grading and Excavation	3.9	32.8	40.0	0.1	5.7	1.9
Roadway Widening – Drainage, Utilities, Sub-grade[1]	2.0	17.3	22.0	<0.1	2.6	0.9

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Roadway Widening – Paving	0.9	7.6	12.8	<0.1	0.6	0.3
Maximum Daily Emissions[2]	**16.8**	**52.5**	**61.8**	**0.1**	**22.3**	**11.8**
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)

1 During these phases, maximum daily emissions of NO_X would occur during winter and maximum daily emissions of all other pollutants would occur during summer or would not be seasonally dependent.

2 Maximum daily emissions of NO_X, CO, and SO_X would occur during concurrent grading of the project site and roadway widening area. Maximum daily emissions of PM_{10} and $PM_{2.5}$ would occur during concurrent site preparation and roadway grubbing/land clearing.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides;
PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
SCAQMD = South Coast Air Quality Management District

As shown in Table 10, construction period emissions of criteria pollutants and precursors would not exceed the SCAQMD significance thresholds. Therefore, construction of the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is non-attainment and impacts would be less than significant.

5.2.2 Operation Emissions

The project's operation emissions were estimated using the CalEEMod model as described in Section 4.1.2. Mobile emissions were excluded from the estimation of project emissions since the project is anticipated to reduce regional VMT. The results of the calculations for project operation are shown in Table 11, *Maximum Daily Operation Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SCAQMD thresholds.

Table 11
MAXIMUM DAILY OPERATION EMISSIONS

Source	Pollutant Emissions (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	2.0	<0.1	2.8	<0.1	<0.1	<0.1
Energy	0.1	1.2	1.0	<0.1	0.1	0.1
Total Maximum Daily Emissions[1]	**2.1**	**1.2**	**3.8**	**<0.1**	**0.1**	**0.1**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)

1 Totals may not sum due to rounding.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides;
PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
SCAQMD = South Coast Air Quality Management District

As shown in Table 11, emissions of criteria pollutants and precursors during project operation would not exceed the SCAQMD significance thresholds. Therefore, operation of the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is non-attainment and impacts would be less than significant.

5.3 ISSUE 3: IMPACTS TO SENSITIVE RECEPTORS

5.3.1 Construction Activities

Criteria Pollutants

The localized effects from the on-site portion of daily construction emissions were screened in accordance with the SCAQMD's LST method, described in Section 4.1.3. The proposed project is within SRA 25, Lake Elsinore. Consistent with the LST guidelines, when quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Emissions related to off-site delivery/haul truck activity and construction worker trips are not considered in the evaluation of construction-related localized impacts, as these do not contribute to emissions generated on a project site. The closest existing sensitive receptor location to the project site is a single-family residence located on the north side of the project site, with outdoor use areas within 50 feet of the limits of disturbance of project construction.

Maximum on-site daily construction emissions of NO_X and CO would occur during concurrent grading of the project site and roadway widening area. Maximum on-site daily emissions of PM_{10}, and $PM_{2.5}$ would occur during concurrent site preparation and grubbing/land clearing of the roadway widening area. As shown in Table 8, above, site preparation would require the use of three rubber-tired dozers and grubbing/land clearing would require the use of one crawler tractor. The CalEEMod methodology for determining area disturbed per day during site preparation assumes 0.5 acre per day grading per dozer and per crawler tractor, resulting in 2 acres disturbed during project site preparation. Therefore, the LSTs in SRA 25 for project sites of 2 acres with receptors located within 25 meters (84 feet) were used for this screening. Table 12, *Maximum Localized Daily Construction Emissions*, compares the on-site construction emissions to the LSTs.

Table 12
MAXIMUM LOCALIZED DAILY CONSTRUCTION EMISSIONS

Activity	Pollutant Emissions (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Site Preparation	33.7	32.4	21.1	11.4
Grading	18.3	20.1	7.9	4.2
Building Construction	15.6	19.4	0.6	0.6
Paving	7.1	9.9	0.3	0.3
Architectural Coating	0.9	1.1	<0.1	<0.1
Roadway Widening – Grubbing and Land Clearing	4.2	4.5	0.8	0.3
Roadway Widening – Grading and Excavation	32.6	36.9	5.2	1.7
Roadway Widening – Drainage, Utilities, Sub-grade	17.2	19.9	2.3	0.8
Roadway Widening – Paving	7.5	11.7	0.3	0.3

Activity	Pollutant Emissions (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions[1]	**50.9**	**57.0**	**21.9**	**11.7**
SCAQMD LST	*234*	*1,100*	*7*	*4*
Exceed LST?	***No***	***No***	***Yes***	***Yes***

Source: CalEEMod (output data is provided in Appendix A); SCAQMD 2009

1 Maximum on-site daily emissions of NO_X and CO would occur during concurrent grading of the project site and roadway widening area. Maximum on-site daily emissions of PM_{10} and $PM_{2.5}$ would occur during concurrent site preparation and roadway grubbing/land clearing.

NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold

As shown in Table 12, localized emissions would remain below their respective SCAQMD LSTs for NO_X and CO. However, localized emissions of PM_{10} and $PM_{2.5}$ would exceed the LSTs. Therefore, dispersion modeling was completed using Lakes AERMOD, as described in Section 4.1.4, for maximum 24-hour average and average annual on-site construction emissions of PM_{10} and $PM_{2.5}$. The Lakes output reports, including concentration isopleth figures, are included in Appendix B to this report.

The maximum hourly (during site preparation in August 2025) and average annual (2025) PM_{10} and $PM_{2.5}$ on-site project construction emissions calculated from the CalEEMod results (Appendix A) are shown in Table 13, *Unmitigated Particulate Matter Emission Rates*. A printout of the emissions calculation sheet is included in Appendix B to this report.

Table 13
UNMITIGATED PARTICULATE MATTER EMISSION RATES

Period	Emissions per Period	Model Input (grams/second)
Average Annual Fugitive Dust PM_{10}	0.321 tons/year	0.0772
Average Annual Exhaust PM_{10}	0.085 tons/year	0.0204
Maximum Daily Fugitive Dust PM_{10}	20.18726 pounds/day	0.3179
Maximum Daily Exhaust PM_{10}	1.673 pounds/hour	0.0264
Maximum Daily Fugitive Dust $PM_{2.5}$	10.160 pounds/day	0.1600
Maximum Daily Exhaust Dust $PM_{2.5}$	1.540 pounds/day	0.0243

Source: CalEEMod
PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

The highest concentrations of PM_{10} and $PM_{2.5}$, calculated at the closest outdoor use space (i.e., front yard, back yard) for the three closest residences to the project site, without mitigation or consideration of any dust best management practices (BMPs), are compared to the SCAQMD project-level concentration thresholds in Table 14, *Unmitigated Localized Particulate Matter Concentrations*.

Table 14
UNMITIGATED LOCALIZED PARTICULATE MATTER CONCENTRATIONS

Residence	Calculated Concentration ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)	Exceed Threshold?
PM_{10} 24-hour Average			
33850 Paradise Lane	38.6	10.4	Yes
33805 Cherry Street	35.1	10.4	Yes

Residence	Calculated Concentration ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)	Exceed Threshold?
33890 Cherry Street	27.5	10.4	Yes
PM_{10} Annual Average			
33850 Paradise Lane	1.1	1.0	Yes
33805 Cherry Street	1.1	1.0	Yes
33890 Cherry Street	1.0	1.0	Yes
$PM_{2.5}$ 24-hour Average			
33850 Paradise Lane	19.9	10.4	Yes
33805 Cherry Street	18.8	10.4	Yes
33890 Cherry Street	14.2	10.4	Yes

Source: Lakes AERMOD View
PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; $\mu g/m^3$ = micrograms per cubic meter

As shown in Table 14, annual average PM_{10} and 24-hour average concentrations of PM_{10} and $PM_{2.5}$ would exceed the SCAQMD thresholds for ambient concentrations for all three analyzed residences. Impacts related to criteria pollutant emissions at sensitive receptors would be potentially significant.

Toxic Air Contaminants

Implementation of the project would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment could generate the TAC DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive phases such as grading, construction-related emissions would be higher than other less equipment-intensive phases such as building construction. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at approximately 500 feet (CARB 2005).

The dose (of TAC) to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a fixed quantity of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Cancer potency factors are based on animal lifetime studies or worker studies where there is consistent long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (OEHHA 2015). Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations and varying intensities throughout the project site, it is not anticipated that construction of the project would expose sensitive receptors to substantial DPM concentrations.

5.3.2 Operational Activities

Criteria Pollutants

The localized effects from the on-site portion of daily operational emissions were screened in accordance with the SCAQMD's LST method, described in Section 4.1.3. The proposed project is within SRA 25, Lake Elsinore, and residences are located within 25 meters of the project site. Maximum daily operation emissions of NO_X, CO, PM_{10}, and $PM_{2.5}$ are shown in Table 15, *Maximum Localized Daily Operation Emissions*, for comparison with the LSTs in SRA 25 for project sites of 5 acres and receptors located within 25 meters (84 feet). This approach is conservative as it assumes that on-site emissions would occur within a 5-acre area and over-predicts potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors).

Table 15
MAXIMUM LOCALIZED DAILY OPERATION EMISSIONS

Activity	Pollutant Emissions (pounds/day)			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area	<0.1	2.8	<0.1	<0.1
Energy	1.2	1.0	0.1	0.1
Total Maximum Daily Emissions	**1.2**	**3.8**	**0.1**	**0.1**
SCAQMD LST	*371*	*1,965*	*4*	*2*
Exceed LST?	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A); SCAQMD 2009
NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold

As shown in Table 15, project operation would not result in on-site emissions exceeding the SCAQMD operation LSTs and impacts related to criteria pollutant emissions during project operation would be less than significant.

CO Hotspots

Vehicle exhaust is the primary source of CO. In an urban setting, the highest CO concentrations are generally found within proximity to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as distance from the emissions source (i.e., congested intersection) increases. Project-generated traffic has the potential of contributing to localized "hot spots" of CO off-site. Because CO is a byproduct of incomplete combustion, exhaust emissions are worse when fossil-fueled vehicles are operated inefficiently, such as in stop-and-go traffic or through heavily congested intersections, where the LOS is severely degraded.

The CARB also recommends evaluation of the potential for the formation of locally high concentrations of CO, known as CO hot spots. A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. To verify that the project would not cause or contribute to a violation of the 1-hour and 8-hour CO standards, an evaluation of the potential for CO hot spots at nearby intersections was conducted.

The California Department of Transportation's Transportation Project-Level Carbon Monoxide Protocol (CO Protocol; California Department of Transportation 1997) was followed to determine whether a CO hot spot is likely to form due to project-generated traffic. In accordance with the CO Protocol, CO hot spots are typically evaluated when: (a) the LOS of an intersection decreases to an LOS E or worse; (b) signalization and/or channelization is added to an intersection; and (c) sensitive receptors, such as residences, schools, hospitals, etc., are located in the vicinity of the affected intersection or roadway segment.

The project's traffic analysis evaluated whether there would be a change in the LOS at the intersections affected by the project (Trames Solutions Inc. 2024). According to the traffic analysis, the intersections of Orange Street at Bundy Canyon Road, I-15 Southbound ramps at Bundy Canyon Road, Cherry Street at Bundy Canyon Road, and Orange Street at Canyon Drive would operate at LOS E or F under the cumulative condition and experience an increase in delay from the project. The other intersections evaluated in the traffic analysis would operate at LOS D or better with the addition of project traffic (Trames Solutions Inc. 2024). Recommended signalization and striping improvements at the intersections anticipated to operate at LOS E and F are included in the traffic analysis; however, to provide a conservative analysis related to CO hotspots, it is assumed that intersection improvements would not be implemented prior to project opening. Therefore, a quantitative screening is provided below.

In the 2003 SCAQMD AQMP, the SCAQMD modeled the four highest volume intersections in the SCAB to determine the highest potential for a CO hotspot in the SCAB. The results of the SCAQMD's analysis are provided in Table 16, *Carbon Monoxide Modeling Results from the 2003 Air Quality Management Plan*, and illustrate that no intersections would exceed the federal or State one-hour standards or the federal eight-hour standard and one intersection would likely exceed the State eight-hour CO standard (Long Beach-Imperial) in 2003[2]. By 2004, all intersections were estimated to fall below all CO standards and be further reduced in 2005. This decrease over time is largely due to improved technologies and the use of progressively cleaner vehicles.

Table 16
CARBON MONOXIDE MODELING RESULTS FROM THE 2003 AIR QUALITY MANAGEMENT PLAN (ppm)

Intersection	Morning 1-Hour	Afternoon 1-Hour	Peak 1-Hour	2003 8-hour	2004 8-hour	2005 8-hour
Wilshire Ave at Veteran Ave	4.6	3.5	-	4.2	4.0	3.7
Sunset Ave at Highland Ave	4.0	4.5	-	3.9	3.7	3.5
La Cienega Blvd at Century Blvd	3.7	3.1	-	5.8	5.5	5.2
Long Beach Blvd at Imperial Hwy	3.0	3.1	1.2	9.3	8.8	8.4

Source: SCAQMD 2003
Note: The federal 1-hour standard is 35 ppm, the State 1-hour standard is 20 ppm; the federal 8-hour standard is 9 ppm and State 8-hour standard is 9.0 ppm.
ppm = parts per million

Due to the high level of urbanization in the Los Angeles area, where the highest volume intersections are located, and due to the continuing reduction in vehicle CO emissions, background CO concentrations are expected to be lower in the City than at any of the intersections in Table 16. When qualitatively comparing the CO modeling locations in the 2003 AQMP to those near the project site, several factors

[2] It should be noted that the federal 8-hour CO standard is 9 ppm and not 9.0 ppm. As such, all values less than 9.5 do not exceed the standard. Therefore, the 2003 concentration for Long Beach Blvd/Imperial Hwy of 9.3 is said to not exceed the federal 8-hour CO standard.

can be used to demonstrate that the City can be expected to have lower CO concentrations than in the attainment plan. The factors considered are traffic demand, emission variables, site variables, and meteorological variables. Table 17, *Traffic Volume Comparison*, provides a summary of the traffic volumes contained in the SCAQMD's modeling and the traffic volumes for the project-affected intersections for comparison.

Table 17
TRAFFIC VOLUME COMPARISON

Intersection	AM Peak Hour Intersection Volume	PM Peak Hour Intersection Volume
2003 AQMP		
Wilshire Ave at Veteran Ave	8,062	7,719
Sunset Ave at Highland Ave	6,614	7,374
La Cienega Blvd at Century Blvd	6,635	8,674
Long Beach Blvd at Imperial Hwy	4,212	5,514
Proposed Project		
Orange Street at Bundy Canyon Road	2,397	2,414
I-15 Southbound Ramps at Bundy Canyon Road	3,260	3,347
Cherry Street at Bundy Canyon Road	2,863	3,326
Orange Street at Canyon Drive	1,253	797

Source: SCAQMD 2003; Trames Solutions Inc. 2024
AQMP = Air Quality Management Plan

As shown in Table 17, total traffic volumes at the project-affected intersections are less than the SCAQMD AQMP modeled intersections; therefore, CO concentrations at the intersections anticipated to operate at LOS E or F with implementation of the project are anticipated to be less than those modeled for the AQMP. Therefore, air quality impacts related to the exposure of sensitive receptors to substantial pollutant concentrations due to intersection operations would be less than significant.

Toxic Air Contaminants

The new fuel facility would require authority to construct (ATC) and permit to operate (PTO) approval from the SCAQMD, which will review the facility design and location for compliance with SCAQMD standards for criteria pollutants and air quality. All tanks and dispensers would be equipped with the latest Phase I and Phase II Enhanced Vapor Recovery (EVR) air pollution control equipment technology per CARB regulations and associated Executive Orders. The Phase I EVR equipment controls the vapors in the return path from the tanks back to the tanker truck during offloading filling operations. Phase I EVR systems are 98 percent effective in controlling fugitive emissions from escaping into the environment. The Phase II EVR equipment, which also includes "in-station diagnostics," controls and monitors the vapors in the return path from the vehicles back to the tanks. Phase II EVR systems are 95 percent effective in controlling fugitive emissions from escaping into the environment. Therefore, operations expected to occur at the proposed project would not emit a significant quantity of toxic chemicals. In addition, CARB siting recommendations within the *Air Quality and Land Use Handbook* suggest sensitive receptors should not be placed within 50 feet of typical gas dispensing facilities. As shown on the site plan (Figure 3), the fuel dispensers would be located near the center of the project site more than 50 feet from the project boundary.

Other long-term operational emissions include toxic substances such as cleaning agents in use on-site, compliance with State and federal handling regulations would ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents is regulated by the 1990 Federal CAA Amendments as well as State-adopted regulations for the chemical composition of consumer products. As such, project-related TAC emission impacts during operation would be less than significant.

5.3.3 Significance of Impacts

Construction and operation of the project would not result in significant localized concentrations of NO_X, CO, or TACs. However, localized concentrations of PM_{10} and $PM_{2.5}$ from project construction would exceed the SCAQMD thresholds for annual average and 24-hour average ambient concentrations. Therefore, construction of the project could expose sensitive receptors to substantial pollutant concentrations, and the impact would be potentially significant.

5.3.4 Mitigation Framework

The following mitigation would be required to reduce on-site project construction emissions of PM_{10} and $PM_{2.5}$.

AQ-1 **Tier 4 Construction Equipment**. Prior to issuing construction permits, the project applicant or designated representative shall provide to the City a comprehensive inventory of all diesel-powered off-road construction equipment, equal to or greater than 50 horsepower, that will be used on the project site during any portion of construction. The inventory shall include the horsepower rating, engine production year, and certification of the specified Tier standard. The City shall verify that all construction equipment is USEPA Tier Final certified or has been retrofitted with CARB approved diesel particulate matter reduction systems resulting in PM_{10} emissions meeting USEPA Tier 4 Final standards.

AQ-2 **Fugitive Dust Best Management Practices**. Prior to issuing construction permits, the City shall verify that project construction contract or construction documentation specify the requirement to implement all fugitive dust Best Available Control Measures listed in Table 1 of the SCAQMD Rule 403, and the following control measures are enhanced to require watering exposed surface a minimum of three times per day:

- Clearing and Grubbing Control Measure 02-1: Maintain stability of soil through pre-watering of site prior to clearing and grubbing. In addition, during dry weather, water exposed surfaces a minimum of three times per day during clearing and grubbing activities.

- Cut and Fill Control Measure 05-1: Pre-water soils prior to cut and fill activities (e.g., grading). In addition, during dry weather, water all exposed surfaces a minimum of three times per day during cut and fill activities.

5.3.5 Significance After Mitigation

On-site project construction emissions of PM_{10} and $PM_{2.5}$ would result from exhaust emissions from construction equipment and from fugitive dust resulting from use of construction equipment and movement of vegetation, debris, and soil. Mitigation measure AQ-1 would reduce construction equipment exhaust PM emissions by requiring the use of USEPA certified Tier 4 Final diesel engines (or engines equipped with CARB approved retrofits resulting in equivalent emissions) for all diesel-powered equipment used on the project site with 50 or more horsepower. Tier 4 Final diesel engines reduce exhaust emissions of PM by 90 percent or more compared to Tier 0 engines. In addition to reducing localized concentrations of PM_{10} and $PM_{2.5}$, mitigation measure AQ-1 has the effect of reducing emissions of DPM during construction, reducing any associated health risks to nearby sensitive receptors. Mitigation measure AQ-2 would require implementation of standard construction fugitive dust BMPs and the requirement to water exposed surfaces a minimum of three times per day during site preparation and grading (the standard BMP is to water exposed surfaces twice per day). Per CalEEMod mitigation defaults, watering exposed surfaces three times per day reduces fugitive dust PM_{10} and $PM_{2.5}$ emissions from equipment use and material loading by 74 percent.

The maximum hourly (during site preparation in August 2025) PM_{10} and $PM_{2.5}$ on-site project construction emissions, with implementation of mitigation measures AQ-1 and AQ-2, are shown in Table 18, *Mitigated Particulate Matter Emission Rates*. A printout of the emissions calculation sheet is included in Appendix B to this report.

Table 18
MITIGATED PARTICULATE MATTER EMISSION RATES

Period	Emissions per Period	Model Input (grams/second)
Average Annual Fugitive Dust PM_{10}	0.083 tons/year	0.0201
Average Annual Exhaust PM_{10}	0.021 tons/year	0.0050
Maximum Daily Fugitive Dust PM_{10}	5.249 pounds/day	0.0827
Maximum Daily Exhaust PM_{10}	0.177 pounds/day	0.0028
Maximum Daily Fugitive Dust $PM_{2.5}$	2.642 pounds/day	0.0416
Maximum Daily Exhaust $PM_{2.5}$	0.173 pounds/day	0.0272

Source: CalEEMod
PM_{10} = particulate matter less than 10 microns in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter;

The highest concentrations of PM_{10} and $PM_{2.5}$ calculated at the closest outdoor use space (i.e., front yard, back yard) for the three closest residences to the project site, with implementation of mitigation measures AQ-1 and AQ-2, are compared to the SCAQMD project-level concentration thresholds in Table 19, *Mitigated Localized Particulate Matter Concentrations*.

Table 19
MITIGATED LOCALIZED PARTICULATE MATTER CONCENTRATIONS

Residence	Calculated Concentration (µg/m^3)	SCAQMD Threshold (µg/m^3)	Exceed Threshold?
PM_{10} 24-hour Average			
33850 Paradise Lane	9.9	10.4	No
33805 Cherry Street	9.1	10.4	No
33890 Cherry Street	7.0	10.4	No
PM_{10} Annual Average			
33850 Paradise Lane	0.3	1.0	No
33805 Cherry Street	0.3	1.0	No
33890 Cherry Street	0.2	1.0	No

Residence	Calculated Concentration ($\mu g/m^3$)	SCAQMD Threshold ($\mu g/m^3$)	Exceed Threshold?
$PM_{2.5}$ 24-hour Average			
33850 Paradise Lane	5.0	10.4	No
33805 Cherry Street	4.7	10.4	No
33890 Cherry Street	3.6	10.4	No

Source: Lakes AERMOD View
$\mu g/m^3$ = micrograms per cubic meter; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 19, annual average PM_{10} and 24-hour average PM_{10} and $PM_{2.5}$ concentrations from construction emissions on the project site would not exceed the SCAQMD thresholds for ambient concentrations for exposure of sensitive receptors to localized pollutants. Therefore, with implementation of mitigation measure AQ-1 and AQ-2, the project would not expose sensitive receptors to substantial pollutant concentrations, including localized criteria pollutants, CO hotpots, and TACs. Impacts would be less than significant with mitigation incorporated.

5.4 ISSUE 4: OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS)

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations (SCAQMD 1993). The project proposes construction of a car wash, gas station, convenience market, drive-through restaurants, and a hotel. The proposed project does not include any of the uses typically associated with odor complaints. Operation of the project would not result in odor-generating emissions and impacts would be less than significant.

Emissions from construction equipment, such as diesel exhaust, and coatings, may generate odors; however, these odors would be temporary, intermittent, and not expected to affect a substantial number of people. Additionally, noxious odors would be confined to the immediate vicinity of construction equipment. Furthermore, short-term construction-related odors are expected to cease upon the drying of coatings and buildout of the project. Therefore, the project would not create objectionable odors affecting a substantial number of people, and the impact would be less than significant.

6.0 GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

This section evaluates potential impacts of the proposed project related to the generation of GHG emissions. Complete modeling results are included as Appendix A of this report.

6.1 ISSUE 1: GREENHOUSE GAS EMISSIONS

6.1.1 Construction Emissions

Project construction GHG emissions were estimated using the CalEEMod model as described in Section 4.1.1. Additional details of phasing, construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

Emissions of GHGs related to the construction of the project would be temporary. As shown in Table 20, *Construction Greenhouse Gas Emissions*, total GHG emissions associated with construction of the project are estimated at 742 MT CO_2e. For construction emissions, SCAQMD guidance recommends that the emissions be amortized (i.e., averaged) over 30 years and added to operational emissions. Averaged over 30 years, the proposed construction activities would contribute approximately 25 MT CO_2e emissions per year.

Table 20
CONSTRUCTION GREENHOUSE GAS EMISSIONS

Year	Emissions (MT CO_2e)
2025	543.6
2026	198.2
Total[1]	**741.8**
Amortized Construction Emissions[2]	*24.7*

Source: CalEEMod (output data is provided in Appendix A)
1 Totals may not sum due to rounding.
2 Construction emissions are amortized over 30 years in accordance with SCAQMD guidance.
MT = metric tons; CO_2e = carbon dioxide equivalent

6.1.2 Operational Emissions

The project's operational GHG emissions were estimated for the first full year of project operation, 2027, using CalEEMod model as described in Section 4.1.2. Mobile emissions were excluded from the estimation of project emissions since the project is anticipated to reduce regional VMT. The project's annual GHG emissions, including amortized annual construction emissions, are shown in Table 21, *Operational Greenhouse Gas Emissions*, for comparison with the SCAQMD screening threshold of 3,000 MT CO_2e. Appendix A contains the CalEEMod output files for the project.

Table 21
OPERATIONAL GREENHOUSE GAS EMISSIONS

Emission Sources	2027 Emissions (MT CO_2e)
Area	1.3
Energy	693.0
Refrigerants	157.7
Water	16.5
Waste	49.9

Emission Sources	2027 Emissions ($MT\ CO_2e$)
Construction (Annualized over 30 years)	24.7
Project Total[1]	943.0
SCAQMD Screening Threshold	**3,000**
Exceed Threshold?	**No**

Source: CalEEMod (output data is provided in Appendix A)
[1] Totals may not sum due to rounding.
MT = metric tons; CO_2e = carbon dioxide equivalent;
SCAQMD = South Coast Air Quality Management District

As shown in Table 21, the project emissions, including amortized construction emissions, would not exceed the proposed SCAQMD GHG screening threshold of 3,000 MT CO_2e per year. The project would not generate GHG emissions that would have a significant impact on the environment and impacts would be less than significant.

6.2 ISSUE 2: CONFLICT WITH APPLICABLE PLANS ADOPTED FOR THE PURPOSE OF REDUCING GREENHOUSE GAS EMISSIONS

There are numerous State plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The principal overall State plan and policy is AB 32, the California Global Warming Solutions Act of 2006. The initial quantitative goal of AB 32 was to reduce GHG emissions to 1990 levels by 2020. SB 32 would require further reductions of 40 percent below 1990 levels by 2030 and AB 1297 would require additional reductions to 85 percent below 1990 levels by 2045. Because the project's operational year is post-2020, the project aims to reach the quantitative goals set by SB 32 and AB 1297. Statewide plans and regulations such as GHG emissions standards for vehicles, the LCFS, and regulations requiring an increasing fraction of electricity to be generated from renewable sources are being implemented at the statewide level; as such, compliance at the project level is not addressed. Therefore, the proposed project would not conflict with those plans and regulations.

6.2.1 Consistency with CARB's Scoping Plan

The CARB Scoping Plan, approved in 2008 and updated in 2014, 2017, and 2022, provides a framework for actions to reduce California's GHG emissions and requires CARB and other State agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to individual projects, nor is it intended to be used for project-level evaluations. Under the Scoping Plan, however, there are several statewide regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other State agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy use, high-GWP GHGs in consumer products) and changes to the vehicle fleet (e.g., LCFS), among others. The proposed project would not conflict with implementation of the measures identified in the Scoping Plan.

6.2.2 Consistency with SCAG's RTP/SCS

The SCAG RTP/SCS, Connect SoCal, provides long-range regional strategies for smart growth that would assist the region in attaining GHG emissions reductions goals. Connect SoCal presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporate best practices for achieving the state-mandated reductions in GHG emissions at the regional level through reduced per-capita VMT. The strategies identified in the 2020-2045 RTP/SCS include: Focus Growth Near Destinations

& Mobility Options, Promote Diverse Housing Choices, Leverage Technology Innovations, Support Implementation of Sustainability Policies, and Promote a Green Region. These strategies identify how the SCAG region can achieve GHG reductions and promote smart growth. While consistency with these strategies supports implementation of the regional SCS and associated GHG emissions, Connect SoCal does not set forth specific measures to be implemented at the project level. Rather, a project's consistency with the identified smart growth principles and support for VMT reductions can be seen to support regional implementation of the RTP/SCS.

The project does not propose new public transit facilities or housing options related to the housing and technology strategies of Connect SoCal. Rather, the project would provide commercial amenities near existing residential land uses that lack public transportation options. Construction of commercial uses near these residences would reduce VMT by shortening trip lengths (Trames Solutions Inc. 2024). In addition, the project would implement GHG reduction measures identified in the WRCOG CAP, as described further below. Therefore, the project would provide VMT reductions and sustainability features consistent with the strategy of Connect SoCal to reduce GHG emissions. The project would not conflict with implementation of Connect SoCal, the SCAG's RTP/SCS.

6.2.3 Consistency with WRCOG Climate Action Plan

The WRCOG CAP established a local target of reducing subregional GHG emissions 15 percent below 2010 levels by 2020 and 49 percent below 2010 levels by 2035 (WRCOG 2014). The WRCOG CAP does not include GHG reduction measures for goals beyond 2020 and is therefore not directly applicable to the proposed project. The CAP does not include thresholds for determining the significance of a project's GHG emissions, nor does it include a checklist or other methodology for determining consistency of a project with the goals and measures in the CAP. As measures to achieve the emissions reductions target for 2035 have not yet been identified, the project's consistency with applicable measures required to achieve the 2020 reduction target is discussed below in Table 22, *Project Consistency with the WRCOG CAP*. Many measures identified in the WRCOG CAP apply to private and public agencies. As such, these measures do not apply to the project specifically and are not discussed below.

Table 22
PROJECT CONSISTENCY WITH THE WRCOG CAP

GHG Reduction Measures	Project Consistency
State and Regional Energy Measures	
Measure SR-2: 2013 California Building Energy Efficiency Standards (Title 24, Part 6) – Mandatory energy efficiency standards for buildings.	**Consistent**. The California Building Energy Efficiency Standards have been updated with the 2022 version effective January 1, 2023. The project would comply with the applicable Title 24, Part 6 requirements, which are designed to result in energy efficient buildings.
State Solid Waste Measures	
Measure SR-13: Construction & Demolition Waste Diversion – Mandatory requirement to divert 50% of construction and demolition waste from the landfill waste stream.	**Consistent**. The project would be required to comply with CALGreen, which currently requires the diversion of 65 percent of non-hazardous construction and demolition waste from the landfill.

GHG Reduction Measures	Project Consistency
Local Energy Measures	
Measure E-3: Shade Trees – Strategically plant trees to reduce the urban heat island effect.	**Consistent**. In accordance with Wildomar Municipal Code Section 17.188.070.E, the project would be required to shade 50 percent of the total parking area, as over 50 parking spaces are proposed.
Local Transportation Measures	
Measure T-1: Bicycle Infrastructure Improvements – Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.	**Consistent**. In accordance with Wildomar Municipal Code Section 17.188.060.B, 1 bicycle space for every 33 patron parking spaces and 1 bicycle space for every 25 employee parking spaces would be required. The project is required to provide at least 184 parking stalls and would be required to provide 13 bicycle parking spaces (6 for patrons and 7 for employees). The project currently proposes 20 bicycle parking spaces, including a mixture of short- and long-term bicycle parking options.
Measure T-2: Bicycle Parking– Provide additional options for bicycle parking.	
Measure T-3: End of Trip Facilities – Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.	**Not Applicable**. The WRCOG CAP recommends requiring the installation of end of trip facilities where more than 50,000 square feet of commercial space is proposed. The proposed commercial uses total less than 50,000 square feet and do not require implementation of end of trip facilities.
Measure T-8: Density – Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.	**Consistent.** The project proposes commercial uses in proximity to residential uses and is anticipated to reduce VMT.
Measure T-9: Mixed-Use Development – Provide for a variety of development types and uses.	**Consistent.** The project proposes commercial uses in proximity to residential uses where there are limited commercial amenities.

Source: WRCOG 2014

As shown in Table 22, the project would be consistent with applicable goals from the WRCOG CAP. The project would not conflict with applicable GHG emission reduction plans including CARB's Scoping Plan, SCAG's RTP/SCS, and the WRCOG CAP. Impacts would be less than significant.

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Appendix A

CalEEMod Output

Cherry Outpost and Bundy Canyon Road Widening Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Cherry Outpost and Bundy Canyon Road Widening
Construction Start Date	8/1/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.20
Location	33.62821210512077, -117.27209524617696
County	Riverside-South Coast
City	Wildomar
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5576
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.26

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
Convenience Market (24 hour)	4.20	1000sqft	0.10	4,200	0.00	—	—	—

Gasoline/Service Station	14.0	Pump	0.05	1,976	0.00	—	—	—
Fast Food Restaurant with Drive Thru	2.40	1000sqft	0.06	2,400	0.00	—	—	—
Hotel	72.0	Room	2.40	45,571	0.00	—	—	—
Fast Food Restaurant with Drive Thru	4.40	1000sqft	0.10	4,400	0.00	—	—	—
Automobile Care Center	5.70	1000sqft	0.13	5,700	0.00	—	—	—
Parking Lot	2.85	Acre	2.85	0.00	4,000	—	—	—
Road Widening	0.10	Mile	0.60	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces

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.	16.8	16.8	52.5	61.8	0.12	2.28	20.6	22.3	2.10	10.3	11.8	—	13,642	13,642	0.53	0.33	5.62	13,755
Mit.	16.8	16.8	12.0	73.1	0.12	0.41	5.64	5.82	0.40	2.73	2.91	—	13,642	13,642	0.53	0.33	5.62	13,755
% Reduced	—	—	77%	-18%	—	82%	73%	74%	81%	73%	75%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.52	3.80	33.4	42.6	0.08	1.34	2.38	3.72	1.23	0.36	1.59	—	8,676	8,676	0.35	0.33	0.12	8,726
Mit.	1.88	1.68	10.0	50.1	0.08	0.35	1.20	1.55	0.33	0.23	0.56	—	8,676	8,676	0.35	0.33	0.12	8,726
% Reduced	58%	56%	70%	-18%	—	74%	50%	58%	73%	35%	65%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.74	1.46	12.8	15.6	0.03	0.53	2.03	2.57	0.49	0.69	1.18	—	3,261	3,261	0.13	0.06	0.58	3,283
Mit.	1.19	1.16	3.40	18.3	0.03	0.12	0.73	0.85	0.11	0.23	0.34	—	3,261	3,261	0.13	0.06	0.58	3,283
% Reduced	31%	20%	74%	-17%	—	78%	64%	67%	77%	67%	71%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.32	0.27	2.34	2.86	0.01	0.10	0.37	0.47	0.09	0.13	0.22	—	540	540	0.02	0.01	0.10	544
Mit.	0.22	0.21	0.62	3.33	0.01	0.02	0.13	0.16	0.02	0.04	0.06	—	540	540	0.02	0.01	0.10	544
% Reduced	31%	20%	74%	-17%	—	78%	64%	67%	77%	67%	71%	—	—	—	—	—	—	—

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																		
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	7.23	6.05	52.5	61.8	0.12	2.28	20.6	22.3	2.10	10.3	11.8	—	13,642	13,642	0.53	0.32	5.62	13,755
2026	16.8	16.8	9.33	11.5	0.03	0.36	0.72	1.08	0.33	0.19	0.52	—	3,671	3,671	0.11	0.33	4.70	3,777
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	4.52	3.80	33.4	42.6	0.08	1.34	2.38	3.72	1.23	0.36	1.59	—	8,676	8,676	0.35	0.14	0.10	8,726
2026	3.10	2.60	22.8	33.6	0.05	0.87	0.72	1.56	0.80	0.19	0.97	—	6,239	6,239	0.23	0.33	0.12	6,279
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.74	1.46	12.8	15.6	0.03	0.53	2.03	2.57	0.49	0.69	1.18	—	3,262	3,262	0.13	0.06	0.58	3,283
2026	1.48	1.39	4.11	5.86	0.01	0.16	0.15	0.30	0.14	0.04	0.18	—	1,185	1,185	0.04	0.04	0.32	1,197
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.32	0.27	2.34	2.86	0.01	0.10	0.37	0.47	0.09	0.13	0.22	—	540	540	0.02	0.01	0.10	544
2026	0.27	0.25	0.75	1.07	< 0.005	0.03	0.03	0.06	0.03	0.01	0.03	—	196	196	0.01	0.01	0.05	198

2.3. Construction Emissions by Year, Mitigated

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

Year																		
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.16	1.95	12.0	73.1	0.12	0.41	5.64	5.82	0.40	2.73	2.91	—	13,642	13,642	0.53	0.32	5.62	13,755
2026	16.8	16.8	4.56	12.2	0.03	0.14	0.72	0.85	0.13	0.19	0.32	—	3,671	3,671	0.11	0.33	4.70	3,777
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.88	1.68	10.0	50.1	0.08	0.35	1.20	1.55	0.33	0.23	0.56	—	8,676	8,676	0.35	0.14	0.10	8,726
2026	1.45	1.29	7.70	37.3	0.05	0.27	0.72	0.95	0.25	0.19	0.42	—	6,239	6,239	0.23	0.33	0.12	6,279
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.62	0.56	3.40	18.3	0.03	0.12	0.73	0.85	0.11	0.23	0.34	—	3,262	3,262	0.13	0.06	0.58	3,283
2026	1.19	1.16	1.50	6.50	0.01	0.05	0.15	0.20	0.05	0.04	0.08	—	1,185	1,185	0.04	0.04	0.32	1,197
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.11	0.10	0.62	3.33	0.01	0.02	0.13	0.16	0.02	0.04	0.06	—	540	540	0.02	0.01	0.10	544
2026	0.22	0.21	0.27	1.19	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	196	196	0.01	0.01	0.05	198

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.																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.20	2.10	1.25	3.82	0.01	0.10	0.00	0.10	0.10	0.00	0.10	99.0	4,221	4,320	10.3	0.07	953	5,550
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.71	1.64	1.22	1.03	0.01	0.09	0.00	0.09	0.09	0.00	0.09	99.0	4,209	4,308	10.3	0.07	953	5,539
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.05	1.95	1.24	2.94	0.01	0.10	0.00	0.10	0.10	0.00	0.10	99.0	4,217	4,316	10.3	0.07	953	5,546
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.37	0.36	0.23	0.54	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	16.4	698	715	1.71	0.01	158	918

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																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	2.07	2.03	0.02	2.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.5
Energy	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	4,166	4,166	0.39	0.03	—	4,186
Water	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Waste	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953

Total	2.20	2.10	1.25	3.82	0.01	0.10	0.00	0.10	0.10	0.00	0.10	99.0	4,221	4,320	10.3	0.07	953	5,550
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	1.57	1.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	4,166	4,166	0.39	0.03	—	4,186
Water	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Waste	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Total	1.71	1.64	1.22	1.03	0.01	0.09	0.00	0.09	0.09	0.00	0.09	99.0	4,209	4,308	10.3	0.07	953	5,539
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	1.91	1.89	0.02	1.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.87	7.87	< 0.005	< 0.005	—	7.90
Energy	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	4,166	4,166	0.39	0.03	—	4,186
Water	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Waste	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Total	2.05	1.95	1.24	2.94	0.01	0.10	0.00	0.10	0.10	0.00	0.10	99.0	4,217	4,316	10.3	0.07	953	5,546
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.35	0.34	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.30	1.30	< 0.005	< 0.005	—	1.31
Energy	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	690	690	0.06	0.01	—	693
Water	—	—	—	—	—	—	—	—	—	—	—	2.14	7.25	9.38	0.22	0.01	—	16.5
Waste	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.42	0.00	—	49.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158	158
Total	0.37	0.36	0.23	0.54	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	16.4	698	715	1.71	0.01	158	918

2.6. Operations Emissions by Sector, Mitigated

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

Sector																	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	2.07	2.03	0.02	2.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.5
Energy	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	4,166	4,166	0.39	0.03	—	4,186
Water	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Waste	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Total	2.20	2.10	1.25	3.82	0.01	0.10	0.00	0.10	0.10	0.00	0.10	99.0	4,221	4,320	10.3	0.07	953	5,550
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	1.57	1.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	4,166	4,166	0.39	0.03	—	4,186
Water	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Waste	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Total	1.71	1.64	1.22	1.03	0.01	0.09	0.00	0.09	0.09	0.00	0.09	99.0	4,209	4,308	10.3	0.07	953	5,539
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	1.91	1.89	0.02	1.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.87	7.87	< 0.005	< 0.005	—	7.90
Energy	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	4,166	4,166	0.39	0.03	—	4,186
Water	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Waste	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Total	2.05	1.95	1.24	2.94	0.01	0.10	0.00	0.10	0.10	0.00	0.10	99.0	4,217	4,316	10.3	0.07	953	5,546
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.35	0.34	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.30	1.30	< 0.005	< 0.005	—	1.31
Energy	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	690	690	0.06	0.01	—	693
Water	—	—	—	—	—	—	—	—	—	—	—	2.14	7.25	9.38	0.22	0.01	—	16.5
Waste	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.42	0.00	—	49.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158	158
Total	0.37	0.36	0.23	0.54	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	16.4	698	715	1.71	0.01	158	918

3. Construction Emissions Details

3.1. Grubbing & Land Clearing (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.49	4.22	4.50	0.01	0.24	—	0.24	0.22	—	0.22	—	632	632	0.03	0.01	—	634
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.3	17.3	< 0.005	< 0.005	—	17.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.87	2.87	< 0.005	< 0.005	—	2.88
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.59	3.59	< 0.005	< 0.005	0.01	3.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grubbing & Land Clearing (2025) - Mitigated

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	0.26	0.23	1.83	4.47	0.01	0.06	—	0.06	0.05	—	0.05	—	632	632	0.03	0.01	—	634
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.01	0.01	0.05	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.3	17.3	< 0.005	< 0.005	—	17.4
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.87	2.87	< 0.005	< 0.005	—	2.88
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.59	3.59	< 0.005	< 0.005	0.01	3.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading & Excavation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.39	3.69	32.6	36.9	0.07	1.46	—	1.46	1.35	—	1.35	—	7,645	7,645	0.31	0.06	—	7,671
Dust From Material Movement	—	—	—	—	—	—	3.71	3.71	—	0.40	0.40	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.68	3.03	0.01	0.12	—	0.12	0.11	—	0.11	—	628	628	0.03	0.01	—	631
Dust From Material Movement	—	—	—	—	—	—	0.31	0.31	—	0.03	0.03	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.49	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	104	104	< 0.005	< 0.005	—	104
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.18	0.18	3.09	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	564	564	0.02	0.02	2.07	572
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.09	32.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	43.1	43.1	< 0.005	< 0.005	0.07	43.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.52	2.52	< 0.005	< 0.005	< 0.005	2.63
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.14	7.14	< 0.005	< 0.005	0.01	7.24
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.44
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading & Excavation (2025) - Mitigated

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	1.33	1.22	7.68	45.7	0.07	0.29	—	0.29	0.28	—	0.28	—	7,645	7,645	0.31	0.06	—	7,671
Dust From Material Movement	—	—	—	—	—	—	0.97	0.97	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	0.63	3.75	0.01	0.02	—	0.02	0.02	—	0.02	—	628	628	0.03	0.01	—	631
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.12	0.68	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	104	104	< 0.005	< 0.005	—	104
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.18	0.18	3.09	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	564	564	0.02	0.02	2.07	572
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.09	32.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	43.1	43.1	< 0.005	< 0.005	0.07	43.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.52	2.52	< 0.005	< 0.005	< 0.005	2.63
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.14	7.14	< 0.005	< 0.005	0.01	7.24
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.44
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Drainage, Utilities, & Sub-grade (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.25	1.88	17.2	19.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,090	4,090	0.17	0.03	—	4,104
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.25	1.88	17.2	19.9	0.04	0.69	—	0.69	0.64	—	0.64	—	4,090	4,090	0.17	0.03	—	4,104
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	3.44	3.98	0.01	0.14	—	0.14	0.13	—	0.13	—	818	818	0.03	0.01	—	821
Dust From Material Movement	—	—	—	—	—	—	0.32	0.32	—	0.03	0.03	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.63	0.73	< 0.005	0.03	—	0.03	0.02	—	0.02	—	135	135	0.01	< 0.005	—	136
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.12	0.12	2.12	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	388	388	0.02	0.01	1.42	393
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.13	1.60	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	356	356	0.02	0.01	0.04	361
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	72.2	72.2	< 0.005	< 0.005	0.12	73.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.02	12.1

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Drainage, Utilities, & Sub-grade (2025) - Mitigated

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	0.81	0.73	4.66	24.5	0.04	0.17	—	0.17	0.17	—	0.17	—	4,090	4,090	0.17	0.03	—	4,104
Dust From Material Movement	—	—	—	—	—	—	0.41	0.41	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	0.73	4.66	24.5	0.04	0.17	—	0.17	0.17	—	0.17	—	4,090	4,090	0.17	0.03	—	4,104
Dust From Material Movement	—	—	—	—	—	—	0.41	0.41	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.16	0.15	0.93	4.91	0.01	0.03	—	0.03	0.03	—	0.03	—	818	818	0.03	0.01	—	821
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.17	0.90	< 0.005	0.01	—	0.01	0.01	—	0.01	—	135	135	0.01	< 0.005	—	136
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.12	0.12	2.12	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	388	388	0.02	0.01	1.42	393
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.13	1.60	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	356	356	0.02	0.01	0.04	361
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	72.2	72.2	< 0.005	< 0.005	0.12	73.2

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.02	12.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Roadway Paving (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	7.53	11.7	0.02	0.30	—	0.30	0.28	—	0.28	—	1,768	1,768	0.07	0.01	—	1,774
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.93	1.44	< 0.005	0.04	—	0.04	0.03	—	0.03	—	218	218	0.01	< 0.005	—	219
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.02	0.02	0.17	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.1	36.1	< 0.005	< 0.005	—	36.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.09	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	254	254	< 0.005	0.01	0.02	257
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.7	31.7	< 0.005	< 0.005	0.05	32.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.24	5.24	< 0.005	< 0.005	0.01	5.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Roadway Paving (2026) - Mitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.40	2.47	12.4	0.02	0.10	—	0.10	0.10	—	0.10	—	1,768	1,768	0.07	0.01	—	1,774
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.31	1.53	< 0.005	0.01	—	0.01	0.01	—	0.01	—	218	218	0.01	< 0.005	—	219
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	36.1	36.1	< 0.005	< 0.005	—	36.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.09	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	254	254	< 0.005	0.01	0.02	257
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.7	31.7	< 0.005	< 0.005	0.05	32.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.24	5.24	< 0.005	< 0.005	0.01	5.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	33.7	32.4	0.06	1.44	—	1.44	1.32	—	1.32	—	6,294	6,294	0.26	0.05	—	6,316
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.92	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	172	172	0.01	< 0.005	—	173

Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.6	28.6	< 0.005	< 0.005	—	28.6
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.09	1.54	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	282	282	0.01	0.01	1.04	286
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	0.01	3.21
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.19	7.19	< 0.005	< 0.005	0.01	7.29
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.19	1.19	< 0.005	< 0.005	< 0.005	1.21

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2025) - Mitigated

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

Location	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	0.59	0.59	3.08	33.2	0.06	0.12	—	0.12	0.12	—	0.12	—	6,294	6,294	0.26	0.05	—	6,316
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.08	0.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	172	172	0.01	< 0.005	—	173
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.6
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.09	1.54	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	282	282	0.01	0.01	1.04	286
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	0.01	3.21
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.19	7.19	< 0.005	< 0.005	0.01	7.29
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.19	1.19	< 0.005	< 0.005	< 0.005	1.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.47	2.08	18.3	20.1	0.04	0.79	—	0.79	0.73	—	0.73	—	3,958	3,958	0.16	0.03	—	3,972
Dust From Material Movement	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.51	1.65	< 0.005	0.07	—	0.07	0.06	—	0.06	—	325	325	0.01	< 0.005	—	326
Dust From Material Movement	—	—	—	—	—	—	0.58	0.58	—	0.28	0.28	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.27	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.9	53.9	< 0.005	< 0.005	—	54.0

Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.35	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	247	247	0.01	0.01	0.91	250
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	0.01	3.21
Hauling	0.05	0.02	1.32	0.32	0.01	0.02	0.31	0.34	0.02	0.09	0.11	—	1,194	1,194	0.02	0.19	2.55	1,254
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.9	18.9	< 0.005	< 0.005	0.03	19.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.2	98.2	< 0.005	0.02	0.09	103
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	0.01	3.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	16.3	16.3	< 0.005	< 0.005	0.01	17.0

3.12. Grading (2025) - Mitigated

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	0.48	0.46	2.70	22.7	0.04	0.10	—	0.10	0.10	—	0.10	—	3,958	3,958	0.16	0.03	—	3,972
Dust From Material Movement	—	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.22	1.87	< 0.005	0.01	—	0.01	0.01	—	0.01	—	325	325	0.01	< 0.005	—	326
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.34	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	53.9	53.9	< 0.005	< 0.005	—	54.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.35	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	247	247	0.01	0.01	0.91	250
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.06	3.06	< 0.005	< 0.005	0.01	3.21
Hauling	0.05	0.02	1.32	0.32	0.01	0.02	0.31	0.34	0.02	0.09	0.11	—	1,194	1,194	0.02	0.19	2.55	1,254
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.9	18.9	< 0.005	< 0.005	0.03	19.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.26
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	98.2	98.2	< 0.005	0.02	0.09	103
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	0.01	3.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	16.3	16.3	< 0.005	< 0.005	0.01	17.0

3.13. Building Construction (2025) - Unmitigated

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

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

Off-Road Equipment	2.01	1.68	15.6	19.4	0.03	0.64	—	0.64	0.59	—	0.59	—	3,573	3,573	0.14	0.03	—	3,586
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.01	1.68	15.6	19.4	0.03	0.64	—	0.64	0.59	—	0.59	—	3,573	3,573	0.14	0.03	—	3,586
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.42	3.88	4.84	0.01	0.16	—	0.16	0.15	—	0.15	—	889	889	0.04	0.01	—	893
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.88	< 0.005	0.03	—	0.03	0.03	—	0.03	—	147	147	0.01	< 0.005	—	148
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.11	1.99	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	364	364	0.02	0.01	1.34	369
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	322	322	0.01	0.05	0.91	338

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.12	1.51	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	334	334	0.02	0.01	0.03	338
Vendor	0.01	0.01	0.37	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	322	322	0.01	0.05	0.02	337
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.40	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.3	84.3	< 0.005	< 0.005	0.14	85.4
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.2	80.2	< 0.005	0.01	0.10	84.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.02	14.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.02	13.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2025) - Mitigated

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	0.80	0.72	4.73	22.3	0.03	0.17	—	0.17	0.16	—	0.16	—	3,573	3,573	0.14	0.03	—	3,586
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.72	4.73	22.3	0.03	0.17	—	0.17	0.16	—	0.16	—	3,573	3,573	0.14	0.03	—	3,586
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.18	5.56	0.01	0.04	—	0.04	0.04	—	0.04	—	889	889	0.04	0.01	—	893
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.22	1.01	< 0.005	0.01	—	0.01	0.01	—	0.01	—	147	147	0.01	< 0.005	—	148
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.11	1.99	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	364	364	0.02	0.01	1.34	369
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	322	322	0.01	0.05	0.91	338
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.12	1.51	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	334	334	0.02	0.01	0.03	338

Vendor	0.01	0.01	0.37	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	322	322	0.01	0.05	0.02	337
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.40	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.3	84.3	< 0.005	< 0.005	0.14	85.4
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.2	80.2	< 0.005	0.01	0.10	84.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.02	14.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.02	13.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.91	1.60	14.7	19.3	0.03	0.56	—	0.56	0.52	—	0.52	—	3,573	3,573	0.14	0.03	—	3,585
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.33	0.27	2.52	3.32	0.01	0.10	—	0.10	0.09	—	0.09	—	612	612	0.02	< 0.005	—	615
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.46	0.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	101	101	< 0.005	< 0.005	—	102
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.11	1.40	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.01	0.01	0.03	331
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	317	317	0.01	0.05	0.02	332
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	56.8	56.8	< 0.005	< 0.005	0.09	57.6
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.4	54.4	< 0.005	0.01	0.06	57.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.40	9.40	< 0.005	< 0.005	0.01	9.53
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.00	9.00	< 0.005	< 0.005	0.01	9.43
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Building Construction (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.70	4.67	22.3	0.03	0.16	—	0.16	0.15	—	0.15	—	3,573	3,573	0.14	0.03	—	3,585
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.12	0.80	3.83	0.01	0.03	—	0.03	0.03	—	0.03	—	612	612	0.02	< 0.005	—	615
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.70	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	101	101	< 0.005	< 0.005	—	102
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.11	1.40	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.01	0.01	0.03	331
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	317	317	0.01	0.05	0.02	332
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.25	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	56.8	56.8	< 0.005	< 0.005	0.09	57.6
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.4	54.4	< 0.005	0.01	0.06	57.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.40	9.40	< 0.005	< 0.005	0.01	9.53
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.00	9.00	< 0.005	< 0.005	0.01	9.43
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Paving (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.70	210
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	0.01	3.16
Hauling	0.08	0.03	2.15	0.53	0.01	0.04	0.52	0.56	0.04	0.15	0.18	—	1,950	1,950	0.04	0.31	3.99	2,048

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.15
Hauling	0.08	0.03	2.23	0.54	0.01	0.04	0.52	0.56	0.04	0.15	0.18	—	1,951	1,951	0.04	0.31	0.10	2,045
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.02	0.09	112
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	17.7	17.7	< 0.005	< 0.005	0.02	18.6

3.18. Paving (2026) - Mitigated

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	0.43	0.38	2.35	10.6	0.01	0.10	—	0.10	0.09	—	0.09	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.38	2.35	10.6	0.01	0.10	—	0.10	0.09	—	0.09	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.37	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.58	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	207	207	0.01	0.01	0.70	210
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	0.01	3.16
Hauling	0.08	0.03	2.15	0.53	0.01	0.04	0.52	0.56	0.04	0.15	0.18	—	1,950	1,950	0.04	0.31	3.99	2,048

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	193
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.15
Hauling	0.08	0.03	2.23	0.54	0.01	0.04	0.52	0.56	0.04	0.15	0.18	—	1,951	1,951	0.04	0.31	0.10	2,045
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	< 0.005	0.02	0.09	112
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.75	1.75	< 0.005	< 0.005	< 0.005	1.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	17.7	17.7	< 0.005	< 0.005	0.02	18.6

3.19. Architectural Coating (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	16.6	16.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	0.91	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.17	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.37	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.2	71.2	< 0.005	< 0.005	0.24	72.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	0.01	3.16
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.63	3.63	< 0.005	< 0.005	0.01	3.68
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Architectural Coating (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	16.6	16.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	0.91	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.17	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.37	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.2	71.2	< 0.005	< 0.005	0.24	72.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	0.01	3.16
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.63	3.63	< 0.005	< 0.005	0.01	3.68

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	< 0.005	0.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

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																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	128	128	0.01	< 0.005	—	129
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	14.1	14.1	< 0.005	< 0.005	—	14.2

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	226	226	0.02	< 0.005	—	228
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	1,864	1,864	0.18	0.02	—	1,875
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	370	370	0.04	< 0.005	—	372
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.01	< 0.005	—	104
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,705	2,705	0.26	0.03	—	2,721
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	128	128	0.01	< 0.005	—	129
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	14.1	14.1	< 0.005	< 0.005	—	14.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	226	226	0.02	< 0.005	—	228
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	1,864	1,864	0.18	0.02	—	1,875
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	370	370	0.04	< 0.005	—	372
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.01	< 0.005	—	104

Total	—	—	—	—	—	—	—	—	—	—	—	—	2,705	2,705	0.26	0.03	—	2,721
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	21.2	21.2	< 0.005	< 0.005	—	21.3
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	2.33	2.33	< 0.005	< 0.005	—	2.35
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	37.5	37.5	< 0.005	< 0.005	—	37.7
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	309	309	0.03	< 0.005	—	310
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	61.2	61.2	0.01	< 0.005	—	61.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	17.1	17.1	< 0.005	< 0.005	—	17.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	448	448	0.04	0.01	—	450

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	128	128	0.01	< 0.005	—	129

Gasolin Station	—	—	—	—	—	—	—	—	—	—	—	—	14.1	14.1	< 0.005	< 0.005	—	14.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	226	226	0.02	< 0.005	—	228
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	1,864	1,864	0.18	0.02	—	1,875
Automo bile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	370	370	0.04	< 0.005	—	372
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.01	< 0.005	—	104
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,705	2,705	0.26	0.03	—	2,721
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Conveni ence Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	128	128	0.01	< 0.005	—	129
Gasolin e/Servic e Station	—	—	—	—	—	—	—	—	—	—	—	—	14.1	14.1	< 0.005	< 0.005	—	14.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	226	226	0.02	< 0.005	—	228
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	1,864	1,864	0.18	0.02	—	1,875
Automo bile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	370	370	0.04	< 0.005	—	372

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	103	103	0.01	< 0.005	—	104
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,705	2,705	0.26	0.03	—	2,721
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	21.2	21.2	< 0.005	< 0.005	—	21.3
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	2.33	2.33	< 0.005	< 0.005	—	2.35
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	37.5	37.5	< 0.005	< 0.005	—	37.7
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	309	309	0.03	< 0.005	—	310
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	61.2	61.2	0.01	< 0.005	—	61.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	17.1	17.1	< 0.005	< 0.005	—	17.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	448	448	0.04	0.01	—	450

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Convenience Market (24 hour)	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Gasoline/Service Station	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.4	21.4	< 0.005	< 0.005	—	21.4
Fast Food Restaurant with Drive Thru	0.02	0.01	0.21	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	249	249	0.02	< 0.005	—	249
Hotel	0.11	0.05	0.98	0.82	0.01	0.07	—	0.07	0.07	—	0.07	—	1,168	1,168	0.10	< 0.005	—	1,171
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	1,461	1,461	0.13	< 0.005	—	1,465
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Gasoline/Service Station	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.4	21.4	< 0.005	< 0.005	—	21.4

Fast Food Restaurant with Drive Thru	0.02	0.01	0.21	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	249	249	0.02	< 0.005	—	249
Hotel	0.11	0.05	0.98	0.82	0.01	0.07	—	0.07	0.07	—	0.07	—	1,168	1,168	0.10	< 0.005	—	1,171
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	1,461	1,461	0.13	< 0.005	—	1,465
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.74	3.74	< 0.005	< 0.005	—	3.75
Gasoline/Service Station	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.54	3.54	< 0.005	< 0.005	—	3.55
Fast Food Restaurant with Drive Thru	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.2	41.2	< 0.005	< 0.005	—	41.3
Hotel	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	193	193	0.02	< 0.005	—	194
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	242	242	0.02	< 0.005	—	242

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Gasoline/Service Station	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.4	21.4	< 0.005	< 0.005	—	21.4
Fast Food Restaurant with Drive Thru	0.02	0.01	0.21	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	249	249	0.02	< 0.005	—	249
Hotel	0.11	0.05	0.98	0.82	0.01	0.07	—	0.07	0.07	—	0.07	—	1,168	1,168	0.10	< 0.005	—	1,171
Automobile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	1,461	1,461	0.13	< 0.005	—	1,465
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7

Gasolin Station	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.4	21.4	< 0.005	< 0.005	—	21.4
Fast Food Restaurant with Drive Thru	0.02	0.01	0.21	0.17	< 0.005	0.02	—	0.02	0.02	—	0.02	—	249	249	0.02	< 0.005	—	249
Hotel	0.11	0.05	0.98	0.82	0.01	0.07	—	0.07	0.07	—	0.07	—	1,168	1,168	0.10	< 0.005	—	1,171
Automo bile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.07	1.22	1.03	0.01	0.09	—	0.09	0.09	—	0.09	—	1,461	1,461	0.13	< 0.005	—	1,465
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Conveni ence Market (24 hour)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.74	3.74	< 0.005	< 0.005	—	3.75
Gasolin e/Servic e Station	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.54	3.54	< 0.005	< 0.005	—	3.55
Fast Food Restaurant with Drive Thru	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.2	41.2	< 0.005	< 0.005	—	41.3
Hotel	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	193	193	0.02	< 0.005	—	194
Automo bile Care Center	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	242	242	0.02	< 0.005	—	242

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																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.38	1.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.50	0.46	0.02	2.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.5
Total	2.07	2.03	0.02	2.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.38	1.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.57	1.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.30	1.30	< 0.005	< 0.005	—	1.31
Total	0.35	0.34	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.30	1.30	< 0.005	< 0.005	—	1.31

4.3.2. Mitigated

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

Source																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.38	1.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.50	0.46	0.02	2.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.5
Total	2.07	2.03	0.02	2.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.38	1.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.57	1.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.25	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.30	1.30	< 0.005	< 0.005	—	1.31
Total	0.35	0.34	< 0.005	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.30	1.30	< 0.005	< 0.005	—	1.31

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Conveni Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.60	2.01	2.60	0.06	< 0.005	—	4.58
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.28	0.94	1.22	0.03	< 0.005	—	2.15
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	3.96	13.3	17.3	0.41	0.01	—	30.4
Hotel	—	—	—	—	—	—	—	—	—	—	—	4.08	13.8	17.8	0.42	0.01	—	31.4
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	3.99	13.4	17.4	0.41	0.01	—	30.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.32	0.32	< 0.005	< 0.005	—	0.32
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.60	2.01	2.60	0.06	< 0.005	—	4.58
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.28	0.94	1.22	0.03	< 0.005	—	2.15
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	3.96	13.3	17.3	0.41	0.01	—	30.4

Hotel	—	—	—	—	—	—	—	—	—	—	—	4.08	13.8	17.8	0.42	0.01	—	31.4
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	3.99	13.4	17.4	0.41	0.01	—	30.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.32	0.32	< 0.005	< 0.005	—	0.32
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.10	0.33	0.43	0.01	< 0.005	—	0.76
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.05	0.16	0.20	< 0.005	< 0.005	—	0.36
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.65	2.21	2.86	0.07	< 0.005	—	5.03
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.68	2.28	2.95	0.07	< 0.005	—	5.19
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	0.66	2.22	2.88	0.07	< 0.005	—	5.07
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.05	0.05	< 0.005	< 0.005	—	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	2.14	7.25	9.38	0.22	0.01	—	16.5

4.4.2. Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.60	2.01	2.60	0.06	< 0.005	—	4.58
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.28	0.94	1.22	0.03	< 0.005	—	2.15
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	3.96	13.3	17.3	0.41	0.01	—	30.4
Hotel	—	—	—	—	—	—	—	—	—	—	—	4.08	13.8	17.8	0.42	0.01	—	31.4
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	3.99	13.4	17.4	0.41	0.01	—	30.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.32	0.32	< 0.005	< 0.005	—	0.32
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.60	2.01	2.60	0.06	< 0.005	—	4.58
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.28	0.94	1.22	0.03	< 0.005	—	2.15

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	3.96	13.3	17.3	0.41	0.01	—	30.4
Hotel	—	—	—	—	—	—	—	—	—	—	—	4.08	13.8	17.8	0.42	0.01	—	31.4
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	3.99	13.4	17.4	0.41	0.01	—	30.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.32	0.32	< 0.005	< 0.005	—	0.32
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	43.8	56.7	1.33	0.03	—	99.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	0.10	0.33	0.43	0.01	< 0.005	—	0.76
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.05	0.16	0.20	< 0.005	< 0.005	—	0.36
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.65	2.21	2.86	0.07	< 0.005	—	5.03
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.68	2.28	2.95	0.07	< 0.005	—	5.19
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	0.66	2.22	2.88	0.07	< 0.005	—	5.07
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.05	0.05	< 0.005	< 0.005	—	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	2.14	7.25	9.38	0.22	0.01	—	16.5

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	6.80	0.00	6.80	0.68	0.00	—	23.8
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.07	0.00	4.07	0.41	0.00	—	14.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	42.2	0.00	42.2	4.22	0.00	—	148
Hotel	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.3
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.7	0.00	11.7	1.17	0.00	—	41.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	6.80	0.00	6.80	0.68	0.00	—	23.8
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.07	0.00	4.07	0.41	0.00	—	14.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	42.2	0.00	42.2	4.22	0.00	—	148
Hotel	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.3
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.7	0.00	11.7	1.17	0.00	—	41.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	1.13	0.00	1.13	0.11	0.00	—	3.94
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.36
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	6.99	0.00	6.99	0.70	0.00	—	24.5

Hotel	—	—	—	—	—	—	—	—	—	—	—	3.52	0.00	3.52	0.35	0.00	—	12.3
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.94	0.00	1.94	0.19	0.00	—	6.80
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.42	0.00	—	49.9

4.5.2. Mitigated

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

Land Use																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	6.80	0.00	6.80	0.68	0.00	—	23.8
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.07	0.00	4.07	0.41	0.00	—	14.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	42.2	0.00	42.2	4.22	0.00	—	148
Hotel	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.3
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.7	0.00	11.7	1.17	0.00	—	41.1

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	6.80	0.00	6.80	0.68	0.00	—	23.8
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.07	0.00	4.07	0.41	0.00	—	14.2
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	42.2	0.00	42.2	4.22	0.00	—	148
Hotel	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.3
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	11.7	0.00	11.7	1.17	0.00	—	41.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.1	0.00	86.1	8.60	0.00	—	301
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	1.13	0.00	1.13	0.11	0.00	—	3.94
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.67	0.00	0.67	0.07	0.00	—	2.36

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	6.99	0.00	6.99	0.70	0.00	—	24.5
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.52	0.00	3.52	0.35	0.00	—	12.3
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1.94	0.00	1.94	0.19	0.00	—	6.80
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.42	0.00	—	49.9

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																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	871	871
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71.2	71.2

Automobile	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	871	871
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71.2	71.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	144	144
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.76	1.76
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.8	11.8
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158	158

4.6.2. Mitigated

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

Land Use																		
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	871	871
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71.2	71.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	871	871

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71.2	71.2
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	953	953
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	144	144
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.76	1.76
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.8	11.8
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158	158

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

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

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

4.8.2. Mitigated

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

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

4.9.2. Mitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	8/1/2025	8/12/2025	6.00	10.0	—
Grading & Excavation	Linear, Grading & Excavation	8/13/2025	9/16/2025	6.00	30.0	—
Drainage, Utilities, & Sub-grade	Linear, Drainage, Utilities, & Sub-Grade	9/17/2025	12/10/2025	6.00	73.0	—
Roadway Paving	Linear, Paving	1/15/2026	3/7/2026	6.00	45.0	—
Site Preparation	Site Preparation	8/1/2025	8/12/2025	6.00	10.0	—
Grading	Grading	8/13/2025	9/16/2025	6.00	30.0	—
Building Construction	Building Construction	9/17/2025	3/14/2026	6.00	154	—
Paving	Paving	3/15/2026	4/7/2026	6.00	20.0	—
Architectural Coating	Architectural Coating	4/8/2026	4/30/2026	6.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Grading & Excavation	Graders	Diesel	Average	2.00	8.00	148	0.41
Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Drainage, Utilities, & Sub-grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Drainage, Utilities, & Sub-grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Drainage, Utilities, & Sub-grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Drainage, Utilities, & Sub-grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Drainage, Utilities, & Sub-grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Drainage, Utilities, & Sub-grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40

Drainage, Utilities, & Sub-grade	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Drainage, Utilities, & Sub-grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Drainage, Utilities, & Sub-grade	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Roadway Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Roadway Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Roadway Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Roadway Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Roadway Paving	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Building Construction	Cranes	Diesel	Average	2.00	5.20	367	0.29
Building Construction	Forklifts	Diesel	Average	5.00	7.20	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	4.00	7.80	84.0	0.37
Building Construction	Welders	Diesel	Average	2.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Grading & Excavation	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Grading & Excavation	Graders	Diesel	Tier 4 Final	2.00	8.00	148	0.41
Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Grading & Excavation	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Drainage, Utilities, & Sub-grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Drainage, Utilities, & Sub-grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Drainage, Utilities, & Sub-grade	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Drainage, Utilities, & Sub-grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Drainage, Utilities, & Sub-grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Drainage, Utilities, & Sub-grade	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40

Drainage, Utilities, & Sub-grade	Scrapers	Diesel	Tier 4 Final	1.00	8.00	423	0.48
Drainage, Utilities, & Sub-grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Drainage, Utilities, & Sub-grade	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Roadway Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Roadway Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Roadway Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Roadway Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Roadway Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Site Preparation	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	6.00	376	0.38
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Grading	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	6.00	376	0.38
Building Construction	Cranes	Diesel	Tier 4 Final	2.00	5.20	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	5.00	7.20	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	6.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	7.80	84.0	0.37
Building Construction	Welders	Diesel	Average	2.00	6.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	20.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	0.10	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	18.5	LDA,LDT1,LDT2
Grading	Vendor	0.10	10.2	HHDT,MHDT
Grading	Hauling	17.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	25.8	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.5	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.10	10.2	HHDT,MHDT
Paving	Hauling	28.8	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.16	18.5	LDA,LDT1,LDT2

Architectural Coating	Vendor	0.10	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Grubbing & Land Clearing	—	—	—	—
Grubbing & Land Clearing	Worker	10.0	18.5	LDA,LDT1,LDT2
Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Grading & Excavation	—	—	—	—
Grading & Excavation	Worker	40.0	18.5	LDA,LDT1,LDT2
Grading & Excavation	Vendor	1.00	10.2	HHDT,MHDT
Grading & Excavation	Hauling	0.00	20.0	HHDT
Grading & Excavation	Onsite truck	—	—	HHDT
Drainage, Utilities, & Sub-grade	—	—	—	—
Drainage, Utilities, & Sub-grade	Worker	27.5	18.5	LDA,LDT1,LDT2
Drainage, Utilities, & Sub-grade	Vendor	0.00	10.2	HHDT,MHDT
Drainage, Utilities, & Sub-grade	Hauling	0.00	20.0	HHDT
Drainage, Utilities, & Sub-grade	Onsite truck	—	—	HHDT
Roadway Paving	—	—	—	—
Roadway Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Roadway Paving	Vendor	0.00	10.2	HHDT,MHDT
Roadway Paving	Hauling	0.00	20.0	HHDT
Roadway Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	20.0	18.5	LDA,LDT1,LDT2

Site Preparation	Vendor	0.10	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	17.5	18.5	LDA,LDT1,LDT2
Grading	Vendor	0.10	10.2	HHDT,MHDT
Grading	Hauling	17.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	25.8	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	10.5	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.10	10.2	HHDT,MHDT
Paving	Hauling	28.8	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	5.16	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.10	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Grubbing & Land Clearing	—	—	—	—
Grubbing & Land Clearing	Worker	10.0	18.5	LDA,LDT1,LDT2
Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Grubbing & Land Clearing	Onsite truck	—	—	HHDT

Grading & Excavation	—	—	—	—
Grading & Excavation	Worker	40.0	18.5	LDA,LDT1,LDT2
Grading & Excavation	Vendor	1.00	10.2	HHDT,MHDT
Grading & Excavation	Hauling	0.00	20.0	HHDT
Grading & Excavation	Onsite truck	—	—	HHDT
Drainage, Utilities, & Sub-grade	—	—	—	—
Drainage, Utilities, & Sub-grade	Worker	27.5	18.5	LDA,LDT1,LDT2
Drainage, Utilities, & Sub-grade	Vendor	0.00	10.2	HHDT,MHDT
Drainage, Utilities, & Sub-grade	Hauling	0.00	20.0	HHDT
Drainage, Utilities, & Sub-grade	Onsite truck	—	—	HHDT
Roadway Paving	—	—	—	—
Roadway Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Roadway Paving	Vendor	0.00	10.2	HHDT,MHDT
Roadway Paving	Hauling	0.00	20.0	HHDT
Roadway Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name					
Architectural Coating	0.00	0.00	96,371	32,124	7,449

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)
Grubbing & Land Clearing	—	—	0.60	0.00	—
Grading & Excavation	—	—	0.60	0.00	—
Drainage, Utilities, & Sub-grade	—	—	0.60	0.00	—
Site Preparation	—	—	15.0	0.00	—
Grading	—	4,160	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	2.85

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Convenience Market (24 hour)	0.00	0%
Gasoline/Service Station	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Hotel	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Automobile Care Center	0.00	0%
Parking Lot	2.85	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	88.1	349	0.03	< 0.005
2026	29.4	346	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	210,182	70,061	7,449

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Convenience Market (24 hour)	134,735	346	0.0330	0.0040	70,496
Gasoline/Service Station	14,861	346	0.0330	0.0040	66,702
Fast Food Restaurant with Drive Thru	112,368	346	0.0330	0.0040	364,988
Hotel	1,964,964	346	0.0330	0.0040	3,644,849
Fast Food Restaurant with Drive Thru	126,414	346	0.0330	0.0040	410,612
Automobile Care Center	389,864	346	0.0330	0.0040	0.00
Parking Lot	108,752	346	0.0330	0.0040	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Convenience Market (24 hour)	134,735	346	0.0330	0.0040	70,496
Gasoline/Service Station	14,861	346	0.0330	0.0040	66,702
Fast Food Restaurant with Drive Thru	112,368	346	0.0330	0.0040	364,988
Hotel	1,964,964	346	0.0330	0.0040	3,644,849

Fast Food Restaurant with Drive Thru	126,414	346	0.0330	0.0040	410,612
Automobile Care Center	389,864	346	0.0330	0.0040	0.00
Parking Lot	108,752	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Convenience Market (24 hour)	311,105	0.00
Gasoline/Service Station	146,101	0.00
Fast Food Restaurant with Drive Thru	971,308	0.00
Hotel	2,130,809	0.00
Fast Food Restaurant with Drive Thru	1,092,721	0.00
Automobile Care Center	2,080,000	0.00
Parking Lot	0.00	63,423

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Convenience Market (24 hour)	311,105	0.00
Gasoline/Service Station	146,101	0.00
Fast Food Restaurant with Drive Thru	971,308	0.00
Hotel	2,130,809	0.00
Fast Food Restaurant with Drive Thru	1,092,721	0.00
Automobile Care Center	2,080,000	0.00
Parking Lot	0.00	63,423

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Convenience Market (24 hour)	12.6	—
Gasoline/Service Station	7.55	—
Fast Food Restaurant with Drive Thru	27.6	—
Hotel	39.4	—
Fast Food Restaurant with Drive Thru	50.7	—
Automobile Care Center	21.8	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Convenience Market (24 hour)	12.6	—
Gasoline/Service Station	7.55	—
Fast Food Restaurant with Drive Thru	27.6	—
Hotel	39.4	—
Fast Food Restaurant with Drive Thru	50.7	—
Automobile Care Center	21.8	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Convenience Market (24 hour)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Convenience Market (24 hour)	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Automobile Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Convenience Market (24 hour)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market (24 hour)	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0

Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Automobile Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.15.2. Mitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	28.1	annual days of extreme heat
Extreme Precipitation	3.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	16.0	annual hectares burned

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

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	48.2
AQ-DPM	79.4
Drinking Water	31.7
Lead Risk Housing	30.9
Pesticides	0.00
Toxic Releases	13.9
Traffic	85.2
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	51.6

Cardio-vascular	98.9
Low Birth Weights	9.64
Socioeconomic Factor Indicators	—
Education	63.6
Housing	34.2
Linguistic	—
Poverty	58.0
Unemployment	11.9

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	42.12755037
Employed	35.14692673
Median HI	50.10907224
Education	—
Bachelor's or higher	22.22507378
High school enrollment	100
Preschool enrollment	33.37610676
Transportation	—
Auto Access	86.34672142
Active commuting	12.62671628
Social	—
2-parent households	53.70204029
Voting	38.53458232
Neighborhood	—
Alcohol availability	85.05068651

Park access	2.194276915
Retail density	8.263826511
Supermarket access	2.399589375
Tree canopy	1.822148082
Housing	—
Homeownership	87.02681894
Housing habitability	43.77005004
Low-inc homeowner severe housing cost burden	14.34620814
Low-inc renter severe housing cost burden	24.27819838
Uncrowded housing	47.26036186
Health Outcomes	—
Insured adults	31.25882202
Arthritis	0.0
Asthma ER Admissions	50.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	22.8
Cognitively Disabled	64.4
Physically Disabled	37.2
Heart Attack ER Admissions	0.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	56.4

Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	3.2
SLR Inundation Area	0.0
Children	69.7
Elderly	44.5
English Speaking	55.9
Foreign-born	42.3
Outdoor Workers	22.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	85.4
Traffic Density	81.0
Traffic Access	23.0
Other Indices	—
Hardship	60.1
Other Decision Support	—
2016 Voting	54.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	39.0
Healthy Places Index Score for Project Location (b)	38.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Per project applicant, construction will begin in August 2025and last 9 months. Demolition phase removed, grading phase suggested in CalEEMod memo of 30 days for sites over 5 acres applied, and default building phase duration reduced from 230 days to complete schedule in 9 months. Roadway widening schedule provided by project engineer.
Operations: Vehicle Data	Trip generation provided by Trames Solutions. Pass-by trips subtracted to generate project trip generation rates.
Operations: Energy Use	Car wash electricity use per Car Wash Advisory report and USEIA electricity pricing information.
Operations: Water and Waste Water	Water use based on Car Wash Advisory report of up to 65 gallons per car with 60% reclamation in accordance with AB 2230.
Operations: Refrigerants	Removed refrigeration from automobile center as project proposes conveyor car wash.
Construction: Dust From Material Movement	Grading quantity provided by project applicant
Construction: Architectural Coatings	SCAQMD Rule 1113
Construction: Off-Road Equipment	Building construction equipment adjusted to result in same number of total construction hours per equipment in 154 days as under 230-day default period. Water truck added as off-highway truck for dust suppression during site preparation and grading. Roadway widening equipment defaults maintained, 1 signal board designated given length.

Construction: Trips and VMT	Vendor trips added per suggested defaults in CalEEMod memo. Asphalt hauling trips calculated based on 2.85 acre parking area, 1 foot depth of paving, and haul truck capacity of 16 CY.
Land Use	Default square footages adjusted per site plan.
Operations: Architectural Coatings	SCAQMD Rule 1113

Appendix B

Dispersion Modeling

Cherry Outpost PM Dispersion Modeling Emissions

Area Source (m^2)	26322.5
Number Volume Sources	54
grams per pound	453.5924
Work days in 2025	131

Fugitive Dust Emissions (Areas Source), Unmitigated

	tons/year	Total lb/day	Total lb/hr	Total lb/s	Total g/s	g/s m^2
2025 Average Annual PM10	0.32102	4.90112	6.1264E-01	1.7018E-04	7.7191E-02	2.9325E-06
Maximum Daily PM10		20.18726	2.5234E+00	7.0095E-04	3.1794E-01	1.2079E-05
Maximum Daily PM2.5		10.15970	1.2700E+00	3.5277E-04	1.6001E-01	6.0789E-06

Exhaust Emissions (Volume Sources), Unmitigated

	tons/year	Total lb/day	Total lb/hr	Total lb/s	Total g/s	Per Source g/s
2025 Average Annual PM10	0.08481	1.29482	1.6185E-01	4.4959E-05	2.0393E-02	3.7765E-04
Maximum Daily PM10		1.673722	2.0922E-01	5.8115E-05	2.6361E-02	4.8816E-04
Maximum Daily PM2.5		1.53982	1.9248E-01	5.3466E-05	2.4252E-02	4.4911E-04

Fugitive Dust Emissions (Areas Source), Mitigated

	tons/year	Total lb/day	Total lb/hr	Total lb/s	Total g/s	Per Source g/s
2025 Average Annual PM10	0.08347	1.27429	1.5929E-01	4.4246E-05	2.0070E-02	7.6246E-07
Maximum Daily PM10		5.24869	6.5609E-01	1.8225E-04	8.2665E-02	3.1405E-06
Maximum Daily PM2.5		2.64152	3.3019E-01	9.1720E-05	4.1603E-02	1.5805E-06

Exhaust Emissions (Volume Sources), Mitigated

	tons/year	Total lb/day	Total lb/hr	Total lb/s	Total g/s	Per Source g/s
2025 Average Annual PM10	0.02072	0.31641	3.9551E-02	1.0986E-05	4.9833E-03	9.2284E-05
Maximum Daily PM10		0.17675	2.2094E-02	6.1371E-06	2.7838E-03	5.1551E-05
Maximum Daily PM2.5		0.17262	2.1577E-02	5.9936E-06	2.7187E-03	5.0346E-05

PROJECT TITLE:

Cherry Outpost Maximum 24-Hour Average PM10, Unmitigated

COMMENTS:

SOURCES:

55

RECEPTORS:

758

OUTPUT TYPE:

Concentration

MAX:

51.1 ug/m^3

COMPANY NAME:

MODELER:

DATE:

8/5/2024

SCALE: 1:6,849

0 0.2 km

PROJECT NO.:

AERMOD View - Lakes Environmental Software

C:\Users\MartinR\Desktop\Cherry Outpost Dispersion\Cherry Outpost Dispersion.isc

PROJECT TITLE:

Cherry Outpost Maximum 24-Hour Average PM10, Mitigated

COMMENTS:

Mitigation to require watering exposed areas 3 times daily and Tier 4 Final engines for construction equipment.

SOURCES:

55

RECEPTORS:

758

OUTPUT TYPE:

Concentration

MAX:

13.1 ug/m^3

COMPANY NAME:

MODELER:

DATE:

8/5/2024

SCALE: 1:6,849

0 ——— 0.2 km

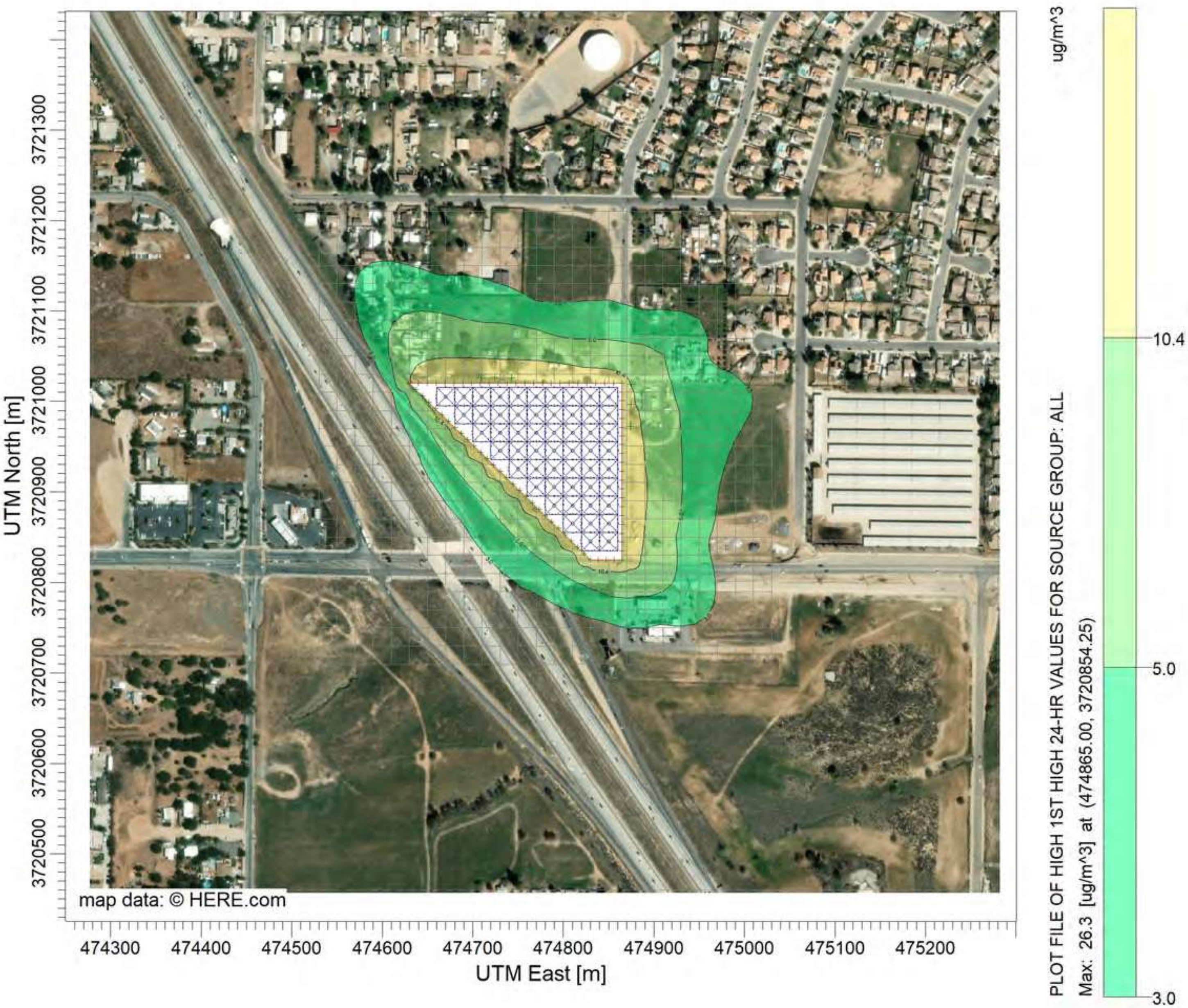
PROJECT NO.:

AERMOD View - Lakes Environmental Software

C:\Users\MartinR\Desktop\Cherry Outpost Dispersion\Cherry Outpost Dispersion.isc

PROJECT TITLE:

Cherry Outpost Maximum 24-Hour Average PM2.5, Unitigated



COMMENTS:

SOURCES:

55

RECEPTORS:

758

OUTPUT TYPE:

Concentration

MAX:

26.3 ug/m^3

COMPANY NAME:

MODELER:

DATE:

8/5/2024

SCALE: 1:6,849

0 0.2 km

PROJECT NO.:

PROJECT TITLE:

Cherry Outpost Maximum 24-Hour Average PM2.5, Mitigated

COMMENTS:

Mitigation to require watering exposed areas 3 times daily and Tier 4 Final engines for construction equipment.

SOURCES:

55

RECEPTORS:

758

OUTPUT TYPE:

Concentration

MAX:

6.64 ug/m^3

COMPANY NAME:

MODELER:

DATE:

8/5/2024

SCALE: 1:6,918

0 0.2 km

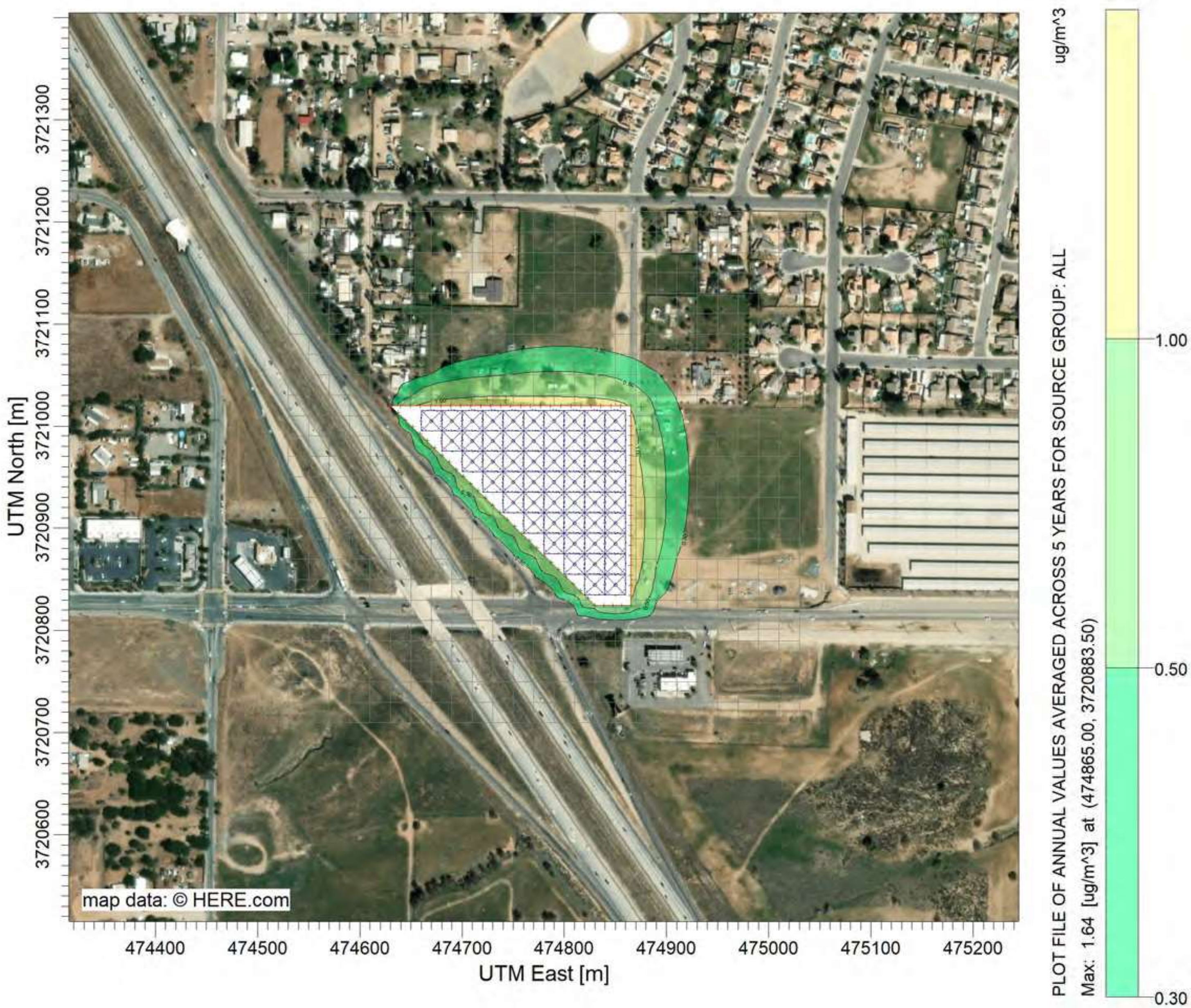
PROJECT NO.:

AERMOD View - Lakes Environmental Software

C:\Users\MartinR\Desktop\Cherry Outpost Dispersion\Cherry Outpost Dispersion.isc

PROJECT TITLE:

Cherry Outpost Average Annual PM10, Unmitigated



COMMENTS:

SOURCES:

55

RECEPTORS:

758

OUTPUT TYPE:

Concentration

MAX:

1.64 ug/m^3

COMPANY NAME:

MODELER:

DATE:

8/5/2024

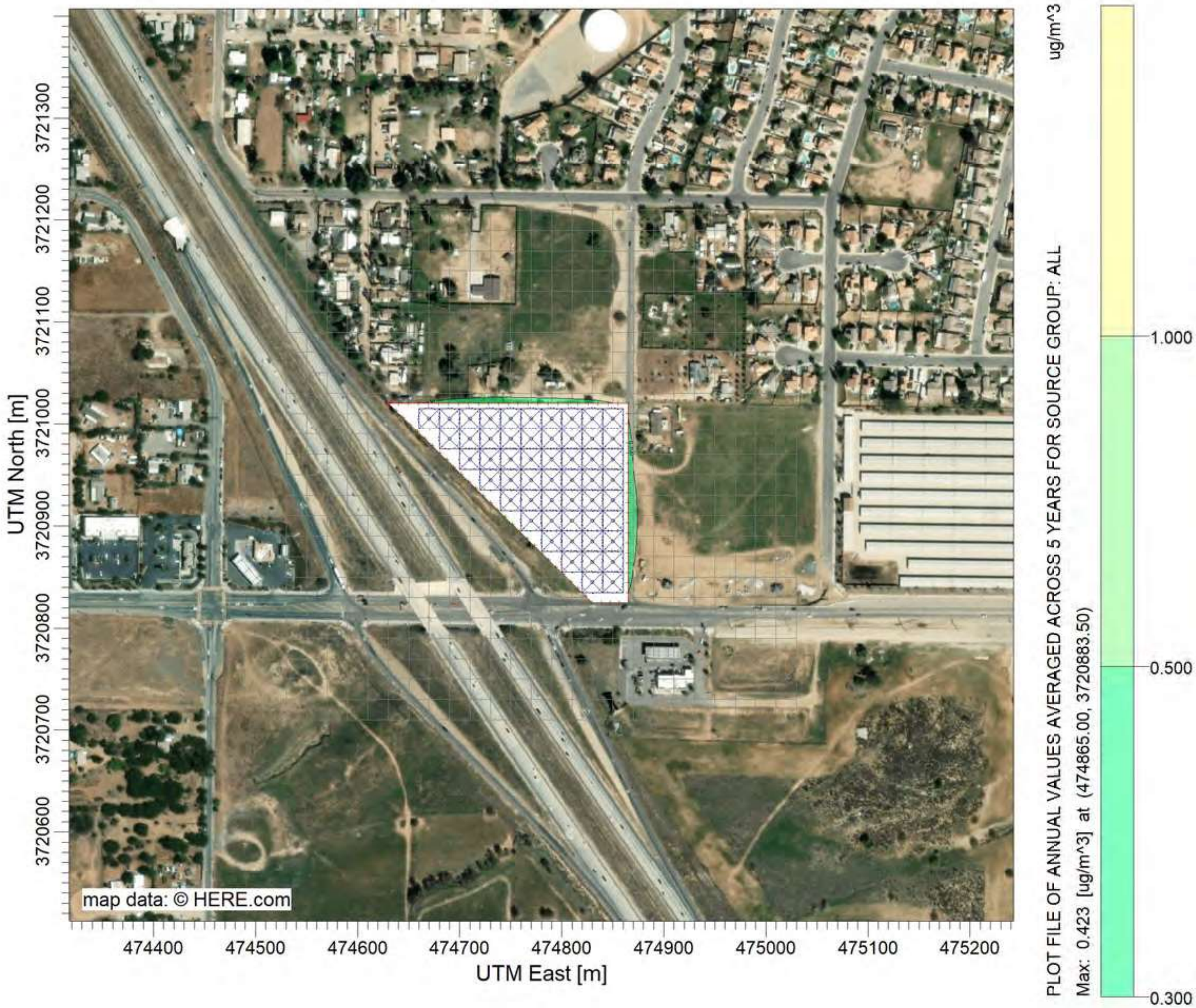
SCALE: 1:6,058

0 0.1 km

PROJECT NO.:

PROJECT TITLE:

Cherry Outpost Average Annual PM10, Mitigated



COMMENTS:

Mitigation to require watering exposed areas 3 times daily and Tier 4 Final engines for construction equipment.

SOURCES:

55

RECEPTORS:

758

OUTPUT TYPE:

Concentration

MAX:

0.423 ug/m^3

COMPANY NAME:

MODELER:

DATE:

8/5/2024

SCALE: 1:6,092

0 0.1 km

PROJECT NO.:

AERMOD View - Lakes Environmental Software

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Cherry Outpost Dispersion Model Results: 24-Hour PM10, Unmitigated

AERMOD plot file for receptors near three closest residences

AEEMOD (23132)

AERMET (16216)

MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL FOR A TOTAL OF 693 RECEPTORS.

FORMAT: (3(1X,F13.5),3(1X,F8.2),3X,A5,2X,A8,2X,A5,5X,A8,2X,I8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	RANK	DATE(CONC)
33890 Cherry Street									
474874.06	3720972.29	27.463	432.66	742.00	2.00	24-HR	ALL	1ST	16122224
474874.36	3720996.91	22.471	433.65	742.00	2.00	24-HR	ALL	1ST	16122224
474874.96	3721018.67	19.490	434.78	742.00	2.00	24-HR	ALL	1ST	16120924
33805 Cherry Street									
474709.06	3721025.79	35.057	429.64	742.00	2.00	24-HR	ALL	1ST	14120324
474724.08	3721025.98	34.208	430.15	742.00	2.00	24-HR	ALL	1ST	14120324
474742.81	3721025.59	33.533	430.75	742.00	2.00	24-HR	ALL	1ST	14120324
33850 Paradise Lane									
474659.38	3721020.00	38.645	428.31	742.00	2.00	24-HR	ALL	1ST	14120324
474649.58	3721020.00	35.309	428.15	742.00	2.00	24-HR	ALL	1ST	14120324
474639.79	3721020.00	29.123	428.00	742.00	2.00	24-HR	ALL	1ST	14120324

Cherry Outpost Dispersion Model Results: 24-Hour PM10, Mitigated

AERMOD plot file for receptors near three closest residences

AEEMOD (23132)

AERMET (16216)

MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL FOR A TOTAL OF 693 RECEPTORS.

FORMAT: (3(1X,F13.5),3(1X,F8.2),3X,A5,2X,A8,2X,A5,5X,A8,2X,I8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	RANK	DATE(CONC)
33890 Cherry Street									
474874.06	3720972.29	6.990	432.66	742.00	2.00	24-HR	ALL	1ST	16122224
474874.36	3720996.91	5.724	433.65	742.00	2.00	24-HR	ALL	1ST	16122224
474874.96	3721018.67	4.983	434.78	742.00	2.00	24-HR	ALL	1ST	16120924
33805 Cherry Street									
474709.06	3721025.79	9.120	429.64	742.00	2.00	24-HR	ALL	1ST	14120324
474724.08	3721025.98	9.203	430.15	742.00	2.00	24-HR	ALL	1ST	14120324
474742.81	3721025.59	9.359	430.75	742.00	2.00	24-HR	ALL	1ST	14120324
33850 Paradise Lane									
474659.38	3721020.00	9.891	428.31	742.00	2.00	24-HR	ALL	1ST	14120324
474649.58	3721020.00	9.066	428.15	742.00	2.00	24-HR	ALL	1ST	14120324
474639.79	3721020.00	7.490	428.00	742.00	2.00	24-HR	ALL	1ST	14120324

Cherry Outpost Dispersion Model Results: 24-Hour PM2.5, Unmitigated

AERMOD plot file for receptors near three closest residences
AEEMOD (23132)
AERMET (16216)
MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL FOR A TOTAL OF 693 RECEPTORS.
FORMAT: (3(1X,F13.5),3(1X,F8.2),3X,A5,2X,A8,2X,A5,5X,A8,2X,I8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	RANK	DATE(CONC)
33890 Cherry Street									
474874.06	3720972.29	14.228	432.66	742.00	2.00	24-HR	ALL	1ST	16122224
474874.36	3720996.91	11.627	433.65	742.00	2.00	24-HR	ALL	1ST	16122224
474874.96	3721018.67	10.037	434.78	742.00	2.00	24-HR	ALL	1ST	16120924
33805 Cherry Street									
474709.06	3721025.79	18.586	429.64	742.00	2.00	24-HR	ALL	1ST	14120324
474724.08	3721025.98	18.809	430.15	742.00	2.00	24-HR	ALL	1ST	14120324
474742.81	3721025.59	19.174	430.75	742.00	2.00	24-HR	ALL	1ST	14120324
33850 Paradise Lane									
474659.38	3721020.00	19.871	428.31	742.00	2.00	24-HR	ALL	1ST	14120324
474649.58	3721020.00	18.080	428.15	742.00	2.00	24-HR	ALL	1ST	14120324
474639.79	3721020.00	14.879	428.00	742.00	2.00	24-HR	ALL	1ST	14120324

Cherry Outpost Dispersion Model Results: 24-Hour PM2.5, Mitigated

AERMOD plot file for receptors near three closest residences
AEEMOD (23132)
AERMET (16216)
MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL FOR A TOTAL OF 693 RECEPTORS.
FORMAT: (3(1X,F13.5),3(1X,F8.2),3X,A5,2X,A8,2X,A5,5X,A8,2X,I8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	RANK	DATE(CONC)
33890 Cherry Street									
474874.06	3720972.29	3.566	432.66	742.00	2.00	24-HR	ALL	1ST	16122224
474874.36	3720996.91	2.919	433.65	742.00	2.00	24-HR	ALL	1ST	16122224
474874.96	3721018.67	2.535	434.78	742.00	2.00	24-HR	ALL	1ST	16120924
33805 Cherry Street									
474709.06	3721025.79	4.655	429.64	742.00	2.00	24-HR	ALL	1ST	14120324
474724.08	3721025.98	4.701	430.15	742.00	2.00	24-HR	ALL	1ST	14120324
474742.81	3721025.59	4.784	430.75	742.00	2.00	24-HR	ALL	1ST	14120324
33850 Paradise Lane									
474659.38	3721020.00	5.029	428.31	742.00	2.00	24-HR	ALL	1ST	14120324
474649.58	3721020.00	4.600	428.15	742.00	2.00	24-HR	ALL	1ST	14120324
474639.79	3721020.00	3.796	428.00	742.00	2.00	24-HR	ALL	1ST	14120324

Cherry Outpost Dispersion Model Results: Annual PM10, Unmitigated

AERMOD plot file for receptors near three closest residences

AEEMOD (23132)

AERMET (16216)

MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL FOR A TOTAL OF 693 RECEPTORS.

FORMAT: (3(1X,F13.5),3(1X,F8.2),3X,A5,2X,A8,2X,A5,5X,A8,2X,I8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS
33890 Cherry Street								
474874.06	3720972.29	0.961	432.66	742.00	2.00	ANNUAL	ALL	5
474874.36	3720996.91	0.857	433.65	742.00	2.00	ANNUAL	ALL	5
474874.96	3721018.67	0.677	434.78	742.00	2.00	ANNUAL	ALL	5
33805 Cherry Street								
474709.06	3721025.79	1.108	429.64	742.00	2.00	ANNUAL	ALL	5
474724.08	3721025.98	1.136	430.15	742.00	2.00	ANNUAL	ALL	5
474742.81	3721025.59	1.187	430.75	742.00	2.00	ANNUAL	ALL	5
33850 Paradise Lane								
474659.38	3721020.00	1.069	428.31	742.00	2.00	ANNUAL	ALL	5
474649.58	3721020.00	0.878	428.15	742.00	2.00	ANNUAL	ALL	5
474639.79	3721020.00	0.599	428.00	742.00	2.00	ANNUAL	ALL	5

Cherry Outpost Dispersion Model Results: Annual PM10, Mitigated

AERMOD plot file for receptors near three closest residences

AEEMOD (23132)

AERMET (16216)

MODELING OPTIONS USED: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL FOR A TOTAL OF 693 RECEPTORS.

FORMAT: (3(1X,F13.5),3(1X,F8.2),3X,A5,2X,A8,2X,A5,5X,A8,2X,I8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS
33890 Cherry Street								
474874.06	3720972.29	0.248	432.66	742.00	2.00	ANNUAL	ALL	5
474874.36	3720996.91	0.221	433.65	742.00	2.00	ANNUAL	ALL	5
474874.96	3721018.67	0.175	434.78	742.00	2.00	ANNUAL	ALL	5
33805 Cherry Street								
474709.06	3721025.79	0.286	429.64	742.00	2.00	ANNUAL	ALL	5
474724.08	3721025.98	0.293	430.15	742.00	2.00	ANNUAL	ALL	5
474742.81	3721025.59	0.306	430.75	742.00	2.00	ANNUAL	ALL	5
33850 Paradise Lane								
474659.38	3721020.00	0.277	428.31	742.00	2.00	ANNUAL	ALL	5
474649.58	3721020.00	0.228	428.15	742.00	2.00	ANNUAL	ALL	5
474639.79	3721020.00	0.155	428.00	742.00	2.00	ANNUAL	ALL	5

Source Pathway - Source Inputs

AERMOD

Source Pathway - Source Inputs

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Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL1	474850.00	3721005.00	433.94	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL2	474830.00	3721005.00	433.28	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL3	474810.00	3721005.00	432.61	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL4	474790.00	3721005.00	431.95	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL5	474770.00	3721005.00	430.64	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL6	474750.00	3721005.00	429.64	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL7	474730.00	3721005.00	428.98	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL8	474710.00	3721005.00	428.31	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL9	474690.00	3721005.00	427.97	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL10	474670.00	3721005.00	427.97	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL11	474850.00	3720985.00	432.61	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL12	474830.00	3720985.00	431.95	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								
VOLUME	VOL13	474810.00	3720985.00	431.28	5.00	0.00049	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Unmitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL14	474790.00 24 Hour PM10, Unmitigated	3720985.00	430.61	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL15	474770.00 24 Hour PM10, Unmitigated	3720985.00	429.75	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL16	474750.00 24 Hour PM10, Unmitigated	3720985.00	428.98	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL17	474730.00 24 Hour PM10, Unmitigated	3720985.00	428.31	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL18	474710.00 24 Hour PM10, Unmitigated	3720985.00	427.64	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL19	474690.00 24 Hour PM10, Unmitigated	3720985.00	427.30	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL20	474850.00 24 Hour PM10, Unmitigated	3720965.00	431.28	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL21	474830.00 24 Hour PM10, Unmitigated	3720965.00	430.85	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL22	474810.00 24 Hour PM10, Unmitigated	3720965.00	430.31	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL23	474790.00 24 Hour PM10, Unmitigated	3720965.00	429.64	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL24	474770.00 24 Hour PM10, Unmitigated	3720965.00	428.98	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL25	474750.00 24 Hour PM10, Unmitigated	3720965.00	428.43	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL26	474730.00 24 Hour PM10, Unmitigated	3720965.00	428.00	5.00	0.00049	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL27	474710.00 24 Hour PM10, Unmitigated	3720965.00	427.10	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL28	474850.00 24 Hour PM10, Unmitigated	3720945.00	429.98	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL29	474830.00 24 Hour PM10, Unmitigated	3720945.00	429.95	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL30	474810.00 24 Hour PM10, Unmitigated	3720945.00	429.62	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL31	474790.00 24 Hour PM10, Unmitigated	3720945.00	428.98	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL32	474770.00 24 Hour PM10, Unmitigated	3720945.00	428.31	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL33	474750.00 24 Hour PM10, Unmitigated	3720945.00	427.96	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL34	474730.00 24 Hour PM10, Unmitigated	3720945.00	427.94	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL35	474850.00 24 Hour PM10, Unmitigated	3720925.00	429.31	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL36	474830.00 24 Hour PM10, Unmitigated	3720925.00	428.84	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL37	474810.00 24 Hour PM10, Unmitigated	3720925.00	428.51	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL38	474790.00 24 Hour PM10, Unmitigated	3720925.00	428.31	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL39	474770.00 24 Hour PM10, Unmitigated	3720925.00	427.64	5.00	0.00049	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL40	474750.00 24 Hour PM10, Unmitigated	3720925.00	427.08	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL41	474850.00 24 Hour PM10, Unmitigated	3720905.00	428.64	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL42	474830.00 24 Hour PM10, Unmitigated	3720905.00	427.74	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL43	474810.00 24 Hour PM10, Unmitigated	3720905.00	427.40	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL44	474790.00 24 Hour PM10, Unmitigated	3720905.00	427.64	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL45	474770.00 24 Hour PM10, Unmitigated	3720905.00	426.98	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL46	474850.00 24 Hour PM10, Unmitigated	3720885.00	427.98	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL47	474830.00 24 Hour PM10, Unmitigated	3720885.00	426.67	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL48	474810.00 24 Hour PM10, Unmitigated	3720885.00	426.32	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL49	474790.00 24 Hour PM10, Unmitigated	3720885.00	426.97	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL50	474850.00 24 Hour PM10, Unmitigated	3720865.00	427.31	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL51	474830.00 24 Hour PM10, Unmitigated	3720865.00	426.44	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL52	474810.00 24 Hour PM10, Unmitigated	3720865.00	426.10	5.00	0.00049	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL53	474850.00 24 Hour PM10, Unmitigated	3720845.00	427.00	5.00	0.00049	20.00	Surface-Based	4.65	1.40
VOLUME	VOL54	474830.00 24 Hour PM10, Unmitigated	3720845.00	426.34	5.00	0.00049	20.00	Surface-Based	4.65	1.40

Polygon Area Sources

Source Type: AREA POLY

Source: AREA1 (24 Hour PM10, Unmitigated)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
427.83	0.00	0.00001	1.00	4	474630.02	3721019.99
		0.00001			474830.00	3720825.00
		0.00001			474865.00	3720825.00
		0.00001			474865.00	3721020.00

Source Pathway - Source Inputs

AERMOD

Source Pathway - Source Inputs

AERMOD

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL1	474850.00 24 Hour PM10, Mitigated	3721005.00	433.94	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL2	474830.00 24 Hour PM10, Mitigated	3721005.00	433.28	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL3	474810.00 24 Hour PM10, Mitigated	3721005.00	432.61	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL4	474790.00 24 Hour PM10, Mitigated	3721005.00	431.95	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL5	474770.00 24 Hour PM10, Mitigated	3721005.00	430.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL6	474750.00 24 Hour PM10, Mitigated	3721005.00	429.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL7	474730.00 24 Hour PM10, Mitigated	3721005.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL8	474710.00 24 Hour PM10, Mitigated	3721005.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL9	474690.00 24 Hour PM10, Mitigated	3721005.00	427.97	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL10	474670.00 24 Hour PM10, Mitigated	3721005.00	427.97	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL11	474850.00 24 Hour PM10, Mitigated	3720985.00	432.61	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL12	474830.00 24 Hour PM10, Mitigated	3720985.00	431.95	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL13	474810.00 24 Hour PM10, Mitigated	3720985.00	431.28	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL14	474790.00 24 Hour PM10, Mitigated	3720985.00	430.61	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL15	474770.00 24 Hour PM10, Mitigated	3720985.00	429.75	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL16	474750.00 24 Hour PM10, Mitigated	3720985.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL17	474730.00 24 Hour PM10, Mitigated	3720985.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL18	474710.00 24 Hour PM10, Mitigated	3720985.00	427.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL19	474690.00 24 Hour PM10, Mitigated	3720985.00	427.30	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL20	474850.00 24 Hour PM10, Mitigated	3720965.00	431.28	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL21	474830.00 24 Hour PM10, Mitigated	3720965.00	430.85	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL22	474810.00 24 Hour PM10, Mitigated	3720965.00	430.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL23	474790.00 24 Hour PM10, Mitigated	3720965.00	429.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL24	474770.00 24 Hour PM10, Mitigated	3720965.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL25	474750.00 24 Hour PM10, Mitigated	3720965.00	428.43	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL26	474730.00 24 Hour PM10, Mitigated	3720965.00	428.00	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL27	474710.00 24 Hour PM10, Mitigated	3720965.00	427.10	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL28	474850.00 24 Hour PM10, Mitigated	3720945.00	429.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL29	474830.00 24 Hour PM10, Mitigated	3720945.00	429.95	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL30	474810.00 24 Hour PM10, Mitigated	3720945.00	429.62	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL31	474790.00 24 Hour PM10, Mitigated	3720945.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL32	474770.00 24 Hour PM10, Mitigated	3720945.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL33	474750.00 24 Hour PM10, Mitigated	3720945.00	427.96	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL34	474730.00 24 Hour PM10, Mitigated	3720945.00	427.94	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL35	474850.00 24 Hour PM10, Mitigated	3720925.00	429.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL36	474830.00 24 Hour PM10, Mitigated	3720925.00	428.84	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL37	474810.00 24 Hour PM10, Mitigated	3720925.00	428.51	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL38	474790.00 24 Hour PM10, Mitigated	3720925.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL39	474770.00 24 Hour PM10, Mitigated	3720925.00	427.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL40	474750.00 24 Hour PM10, Mitigated	3720925.00	427.08	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL41	474850.00 24 Hour PM10, Mitigated	3720905.00	428.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL42	474830.00 24 Hour PM10, Mitigated	3720905.00	427.74	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL43	474810.00 24 Hour PM10, Mitigated	3720905.00	427.40	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL44	474790.00 24 Hour PM10, Mitigated	3720905.00	427.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL45	474770.00 24 Hour PM10, Mitigated	3720905.00	426.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL46	474850.00 24 Hour PM10, Mitigated	3720885.00	427.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL47	474830.00 24 Hour PM10, Mitigated	3720885.00	426.67	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL48	474810.00 24 Hour PM10, Mitigated	3720885.00	426.32	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL49	474790.00 24 Hour PM10, Mitigated	3720885.00	426.97	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL50	474850.00 24 Hour PM10, Mitigated	3720865.00	427.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL51	474830.00 24 Hour PM10, Mitigated	3720865.00	426.44	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL52	474810.00 24 Hour PM10, Mitigated	3720865.00	426.10	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL53	474850.00	3720845.00	427.00	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Mitigated								
VOLUME	VOL54	474830.00	3720845.00	426.34	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM10, Mitigated								

Polygon Area Sources

Source Type: AREA POLY

Source: AREA1 (24 Hour PM10, Mitigated)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
427.83	0.00	3.14E-6	1.00	4	474630.02	3721019.99
		3.14E-6			474830.00	3720825.00
		3.14E-6			474865.00	3720825.00
		3.14E-6			474865.00	3721020.00

Source Pathway - Source Inputs

AERMOD

Source Pathway - Source Inputs

AERMOD

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL1	474850.00	3721005.00	433.94	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL2	474830.00	3721005.00	433.28	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL3	474810.00	3721005.00	432.61	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL4	474790.00	3721005.00	431.95	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL5	474770.00	3721005.00	430.64	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL6	474750.00	3721005.00	429.64	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL7	474730.00	3721005.00	428.98	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL8	474710.00	3721005.00	428.31	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL9	474690.00	3721005.00	427.97	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL10	474670.00	3721005.00	427.97	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL11	474850.00	3720985.00	432.61	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL12	474830.00	3720985.00	431.95	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL13	474810.00	3720985.00	431.28	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL14	474790.00 24 Hour PM2.5, Unmitigated	3720985.00	430.61	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL15	474770.00 24 Hour PM2.5, Unmitigated	3720985.00	429.75	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL16	474750.00 24 Hour PM2.5, Unmitigated	3720985.00	428.98	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL17	474730.00 24 Hour PM2.5, Unmitigated	3720985.00	428.31	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL18	474710.00 24 Hour PM2.5, Unmitigated	3720985.00	427.64	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL19	474690.00 24 Hour PM2.5, Unmitigated	3720985.00	427.30	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL20	474850.00 24 Hour PM2.5, Unmitigated	3720965.00	431.28	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL21	474830.00 24 Hour PM2.5, Unmitigated	3720965.00	430.85	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL22	474810.00 24 Hour PM2.5, Unmitigated	3720965.00	430.31	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL23	474790.00 24 Hour PM2.5, Unmitigated	3720965.00	429.64	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL24	474770.00 24 Hour PM2.5, Unmitigated	3720965.00	428.98	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL25	474750.00 24 Hour PM2.5, Unmitigated	3720965.00	428.43	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL26	474730.00 24 Hour PM2.5, Unmitigated	3720965.00	428.00	5.00	0.00045	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL27	474710.00	3720965.00	427.10	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL28	474850.00	3720945.00	429.98	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL29	474830.00	3720945.00	429.95	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL30	474810.00	3720945.00	429.62	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL31	474790.00	3720945.00	428.98	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL32	474770.00	3720945.00	428.31	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL33	474750.00	3720945.00	427.96	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL34	474730.00	3720945.00	427.94	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL35	474850.00	3720925.00	429.31	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL36	474830.00	3720925.00	428.84	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL37	474810.00	3720925.00	428.51	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL38	474790.00	3720925.00	428.31	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL39	474770.00	3720925.00	427.64	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL40	474750.00	3720925.00	427.08	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL41	474850.00	3720905.00	428.64	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL42	474830.00	3720905.00	427.74	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL43	474810.00	3720905.00	427.40	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL44	474790.00	3720905.00	427.64	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL45	474770.00	3720905.00	426.98	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL46	474850.00	3720885.00	427.98	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL47	474830.00	3720885.00	426.67	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL48	474810.00	3720885.00	426.32	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL49	474790.00	3720885.00	426.97	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL50	474850.00	3720865.00	427.31	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL51	474830.00	3720865.00	426.44	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								
VOLUME	VOL52	474810.00	3720865.00	426.10	5.00	0.00045	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Unmitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL53	474850.00 24 Hour PM2.5, Unmitigated	3720845.00	427.00	5.00	0.00045	20.00	Surface-Based	4.65	1.40
VOLUME	VOL54	474830.00 24 Hour PM2.5, Unmitigated	3720845.00	426.34	5.00	0.00045	20.00	Surface-Based	4.65	1.40

Polygon Area Sources

Source Type: AREA POLY

Source: AREA1 (24 Hour PM2.5, Unmitigated)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
427.83	0.00	6.08E-6	1.00	4	474630.02	3721019.99
		6.08E-6			474830.00	3720825.00
		6.08E-6			474865.00	3720825.00
		6.08E-6			474865.00	3721020.00

Source Pathway - Source Inputs

AERMOD

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL1	474850.00	3721005.00	433.94	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL2	474830.00	3721005.00	433.28	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL3	474810.00	3721005.00	432.61	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL4	474790.00	3721005.00	431.95	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL5	474770.00	3721005.00	430.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL6	474750.00	3721005.00	429.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL7	474730.00	3721005.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL8	474710.00	3721005.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL9	474690.00	3721005.00	427.97	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL10	474670.00	3721005.00	427.97	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL11	474850.00	3720985.00	432.61	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL12	474830.00	3720985.00	431.95	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								
VOLUME	VOL13	474810.00	3720985.00	431.28	5.00	0.00005	20.00	Surface-Based	4.65	1.40
		24 Hour PM2.5, Miitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL14	474790.00 24 Hour PM2.5, Miitigated	3720985.00	430.61	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL15	474770.00 24 Hour PM2.5, Miitigated	3720985.00	429.75	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL16	474750.00 24 Hour PM2.5, Miitigated	3720985.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL17	474730.00 24 Hour PM2.5, Miitigated	3720985.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL18	474710.00 24 Hour PM2.5, Miitigated	3720985.00	427.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL19	474690.00 24 Hour PM2.5, Miitigated	3720985.00	427.30	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL20	474850.00 24 Hour PM2.5, Miitigated	3720965.00	431.28	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL21	474830.00 24 Hour PM2.5, Miitigated	3720965.00	430.85	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL22	474810.00 24 Hour PM2.5, Miitigated	3720965.00	430.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL23	474790.00 24 Hour PM2.5, Miitigated	3720965.00	429.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL24	474770.00 24 Hour PM2.5, Miitigated	3720965.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL25	474750.00 24 Hour PM2.5, Miitigated	3720965.00	428.43	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL26	474730.00 24 Hour PM2.5, Miitigated	3720965.00	428.00	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL27	474710.00 24 Hour PM2.5, Miitigated	3720965.00	427.10	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL28	474850.00 24 Hour PM2.5, Miitigated	3720945.00	429.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL29	474830.00 24 Hour PM2.5, Miitigated	3720945.00	429.95	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL30	474810.00 24 Hour PM2.5, Miitigated	3720945.00	429.62	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL31	474790.00 24 Hour PM2.5, Miitigated	3720945.00	428.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL32	474770.00 24 Hour PM2.5, Miitigated	3720945.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL33	474750.00 24 Hour PM2.5, Miitigated	3720945.00	427.96	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL34	474730.00 24 Hour PM2.5, Miitigated	3720945.00	427.94	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL35	474850.00 24 Hour PM2.5, Miitigated	3720925.00	429.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL36	474830.00 24 Hour PM2.5, Miitigated	3720925.00	428.84	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL37	474810.00 24 Hour PM2.5, Miitigated	3720925.00	428.51	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL38	474790.00 24 Hour PM2.5, Miitigated	3720925.00	428.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL39	474770.00 24 Hour PM2.5, Miitigated	3720925.00	427.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL40	474750.00 24 Hour PM2.5, Miitigated	3720925.00	427.08	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL41	474850.00 24 Hour PM2.5, Miitigated	3720905.00	428.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL42	474830.00 24 Hour PM2.5, Miitigated	3720905.00	427.74	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL43	474810.00 24 Hour PM2.5, Miitigated	3720905.00	427.40	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL44	474790.00 24 Hour PM2.5, Miitigated	3720905.00	427.64	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL45	474770.00 24 Hour PM2.5, Miitigated	3720905.00	426.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL46	474850.00 24 Hour PM2.5, Miitigated	3720885.00	427.98	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL47	474830.00 24 Hour PM2.5, Miitigated	3720885.00	426.67	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL48	474810.00 24 Hour PM2.5, Miitigated	3720885.00	426.32	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL49	474790.00 24 Hour PM2.5, Miitigated	3720885.00	426.97	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL50	474850.00 24 Hour PM2.5, Miitigated	3720865.00	427.31	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL51	474830.00 24 Hour PM2.5, Miitigated	3720865.00	426.44	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL52	474810.00 24 Hour PM2.5, Miitigated	3720865.00	426.10	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL53	474850.00 24 Hour PM2.5, Miitigated	3720845.00	427.00	5.00	0.00005	20.00	Surface-Based	4.65	1.40
VOLUME	VOL54	474830.00 24 Hour PM2.5, Miitigated	3720845.00	426.34	5.00	0.00005	20.00	Surface-Based	4.65	1.40

Polygon Area Sources

Source Type: AREA POLY

Source: AREA1 (24 Hour PM2.5, Mitigated)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
427.83	0.00	1.58E-6	1.00	4	474630.02	3721019.99
		1.58E-6			474830.00	3720825.00
		1.58E-6			474865.00	3720825.00
		1.58E-6			474865.00	3721020.00

Source Pathway - Source Inputs

AERMOD

Source Pathway - Source Inputs

AERMOD

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL1	474850.00	3721005.00	433.94	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL2	474830.00	3721005.00	433.28	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL3	474810.00	3721005.00	432.61	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL4	474790.00	3721005.00	431.95	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL5	474770.00	3721005.00	430.64	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL6	474750.00	3721005.00	429.64	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL7	474730.00	3721005.00	428.98	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL8	474710.00	3721005.00	428.31	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL9	474690.00	3721005.00	427.97	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL10	474670.00	3721005.00	427.97	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL11	474850.00	3720985.00	432.61	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL12	474830.00	3720985.00	431.95	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL13	474810.00	3720985.00	431.28	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL14	474790.00	3720985.00	430.61	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL15	474770.00	3720985.00	429.75	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL16	474750.00	3720985.00	428.98	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL17	474730.00	3720985.00	428.31	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL18	474710.00	3720985.00	427.64	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL19	474690.00	3720985.00	427.30	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL20	474850.00	3720965.00	431.28	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL21	474830.00	3720965.00	430.85	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL22	474810.00	3720965.00	430.31	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL23	474790.00	3720965.00	429.64	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL24	474770.00	3720965.00	428.98	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL25	474750.00	3720965.00	428.43	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL26	474730.00	3720965.00	428.00	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL27	474710.00	3720965.00	427.10	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL28	474850.00	3720945.00	429.98	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL29	474830.00	3720945.00	429.95	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL30	474810.00	3720945.00	429.62	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL31	474790.00	3720945.00	428.98	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL32	474770.00	3720945.00	428.31	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL33	474750.00	3720945.00	427.96	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL34	474730.00	3720945.00	427.94	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL35	474850.00	3720925.00	429.31	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL36	474830.00	3720925.00	428.84	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL37	474810.00	3720925.00	428.51	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL38	474790.00	3720925.00	428.31	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								
VOLUME	VOL39	474770.00	3720925.00	427.64	5.00	0.00038	20.00	Surface-Based	4.65	1.40
		Annual PM10, Unmitigated								

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL40	474750.00 Annual PM10, Unmitigated	3720925.00	427.08	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL41	474850.00 Annual PM10, Unmitigated	3720905.00	428.64	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL42	474830.00 Annual PM10, Unmitigated	3720905.00	427.74	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL43	474810.00 Annual PM10, Unmitigated	3720905.00	427.40	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL44	474790.00 Annual PM10, Unmitigated	3720905.00	427.64	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL45	474770.00 Annual PM10, Unmitigated	3720905.00	426.98	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL46	474850.00 Annual PM10, Unmitigated	3720885.00	427.98	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL47	474830.00 Annual PM10, Unmitigated	3720885.00	426.67	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL48	474810.00 Annual PM10, Unmitigated	3720885.00	426.32	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL49	474790.00 Annual PM10, Unmitigated	3720885.00	426.97	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL50	474850.00 Annual PM10, Unmitigated	3720865.00	427.31	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL51	474830.00 Annual PM10, Unmitigated	3720865.00	426.44	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL52	474810.00 Annual PM10, Unmitigated	3720865.00	426.10	5.00	0.00038	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL53	474850.00 Annual PM10, Unmitigated	3720845.00	427.00	5.00	0.00038	20.00	Surface-Based	4.65	1.40
VOLUME	VOL54	474830.00 Annual PM10, Unmitigated	3720845.00	426.34	5.00	0.00038	20.00	Surface-Based	4.65	1.40

Polygon Area Sources

Source Type: AREA POLY

Source: AREA1 (Annual PM10, Unmitigated)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
427.83	0.00	2.93E-6	1.00	4	474630.02	3721019.99
		2.93E-6			474830.00	3720825.00
		2.93E-6			474865.00	3720825.00
		2.93E-6			474865.00	3721020.00

Source Pathway - Source Inputs

AERMOD

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL1	474850.00 Annual PM10, Mitigated	3721005.00	433.94	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL2	474830.00 Annual PM10, Mitigated	3721005.00	433.28	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL3	474810.00 Annual PM10, Mitigated	3721005.00	432.61	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL4	474790.00 Annual PM10, Mitigated	3721005.00	431.95	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL5	474770.00 Annual PM10, Mitigated	3721005.00	430.64	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL6	474750.00 Annual PM10, Mitigated	3721005.00	429.64	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL7	474730.00 Annual PM10, Mitigated	3721005.00	428.98	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL8	474710.00 Annual PM10, Mitigated	3721005.00	428.31	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL9	474690.00 Annual PM10, Mitigated	3721005.00	427.97	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL10	474670.00 Annual PM10, Mitigated	3721005.00	427.97	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL11	474850.00 Annual PM10, Mitigated	3720985.00	432.61	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL12	474830.00 Annual PM10, Mitigated	3720985.00	431.95	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL13	474810.00 Annual PM10, Mitigated	3720985.00	431.28	5.00	0.00009	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL14	474790.00 Annual PM10, Mitigated	3720985.00	430.61	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL15	474770.00 Annual PM10, Mitigated	3720985.00	429.75	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL16	474750.00 Annual PM10, Mitigated	3720985.00	428.98	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL17	474730.00 Annual PM10, Mitigated	3720985.00	428.31	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL18	474710.00 Annual PM10, Mitigated	3720985.00	427.64	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL19	474690.00 Annual PM10, Mitigated	3720985.00	427.30	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL20	474850.00 Annual PM10, Mitigated	3720965.00	431.28	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL21	474830.00 Annual PM10, Mitigated	3720965.00	430.85	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL22	474810.00 Annual PM10, Mitigated	3720965.00	430.31	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL23	474790.00 Annual PM10, Mitigated	3720965.00	429.64	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL24	474770.00 Annual PM10, Mitigated	3720965.00	428.98	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL25	474750.00 Annual PM10, Mitigated	3720965.00	428.43	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL26	474730.00 Annual PM10, Mitigated	3720965.00	428.00	5.00	0.00009	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL27	474710.00 Annual PM10, Mitigated	3720965.00	427.10	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL28	474850.00 Annual PM10, Mitigated	3720945.00	429.98	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL29	474830.00 Annual PM10, Mitigated	3720945.00	429.95	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL30	474810.00 Annual PM10, Mitigated	3720945.00	429.62	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL31	474790.00 Annual PM10, Mitigated	3720945.00	428.98	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL32	474770.00 Annual PM10, Mitigated	3720945.00	428.31	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL33	474750.00 Annual PM10, Mitigated	3720945.00	427.96	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL34	474730.00 Annual PM10, Mitigated	3720945.00	427.94	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL35	474850.00 Annual PM10, Mitigated	3720925.00	429.31	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL36	474830.00 Annual PM10, Mitigated	3720925.00	428.84	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL37	474810.00 Annual PM10, Mitigated	3720925.00	428.51	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL38	474790.00 Annual PM10, Mitigated	3720925.00	428.31	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL39	474770.00 Annual PM10, Mitigated	3720925.00	427.64	5.00	0.00009	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL40	474750.00 Annual PM10, Mitigated	3720925.00	427.08	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL41	474850.00 Annual PM10, Mitigated	3720905.00	428.64	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL42	474830.00 Annual PM10, Mitigated	3720905.00	427.74	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL43	474810.00 Annual PM10, Mitigated	3720905.00	427.40	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL44	474790.00 Annual PM10, Mitigated	3720905.00	427.64	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL45	474770.00 Annual PM10, Mitigated	3720905.00	426.98	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL46	474850.00 Annual PM10, Mitigated	3720885.00	427.98	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL47	474830.00 Annual PM10, Mitigated	3720885.00	426.67	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL48	474810.00 Annual PM10, Mitigated	3720885.00	426.32	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL49	474790.00 Annual PM10, Mitigated	3720885.00	426.97	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL50	474850.00 Annual PM10, Mitigated	3720865.00	427.31	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL51	474830.00 Annual PM10, Mitigated	3720865.00	426.44	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL52	474810.00 Annual PM10, Mitigated	3720865.00	426.10	5.00	0.00009	20.00	Surface-Based	4.65	1.40

Source Pathway - Source Inputs

AERMOD

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL53	474850.00 Annual PM10, Mitigated	3720845.00	427.00	5.00	0.00009	20.00	Surface-Based	4.65	1.40
VOLUME	VOL54	474830.00 Annual PM10, Mitigated	3720845.00	426.34	5.00	0.00009	20.00	Surface-Based	4.65	1.40

Polygon Area Sources

Source Type: AREA POLY

Source: AREA1 (Annual PM10, Mitigated)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
427.83	0.00	7.62E-7	1.00	4	474630.02	3721019.99
		7.62E-7			474830.00	3720825.00
		7.62E-7			474865.00	3720825.00
		7.62E-7			474865.00	3721020.00

Control Pathway

Dispersion Options

Titles

C:\Users\martinr\Desktop\Cherry Outpost Dispersion\Cherry Outpost Di

Dispersion Options

- [x] Regulatory Default
- [ ] Non-Default Options

Dispersion Coefficient

Urban

Population:
Name (Optional):
Roughness Length:

Output Type

- [x] Concentration
- [ ] Total Deposition (Dry & Wet)
- [ ] Dry Deposition
- [ ] Wet Deposition

Plume Depletion

- [ ] Dry Removal
- [ ] Wet Removal

Output Warnings

- [ ] No Output Warnings
- [ ] Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

PM2.5

Averaging Time Options

Hours	1	2	3	4	6	8	12	24
	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[x]

- [ ] Month
- [ ] Period
- [ ] Annual

Exponential Decay

Half Life of 4 hrs will be used

Terrain Height Options

- [ ] Flat
- [x] Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

- [x] Yes
- [ ] No

Default Height = 2.00 m

Optional Files

☐ Re-Start File	☐ Init File	☐ Multi-Year Analyses	☐ Event Input File	☒ Error Listing File

Detailed Error Listing File

Filename: Cherry Outpost Dispersion.err

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elavations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	474530.00	3720710.00	26	26	20.00	20.00

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	474874.06	3720972.29		432.66	
2	474874.36	3720996.91		433.65	
3	474874.96	3721018.67		434.78	
4	474709.06	3721025.79		429.64	
5	474724.08	3721025.98		430.15	
6	474742.81	3721025.59		430.75	

Plant Boundary Receptors

Cartesian Plant Boundary

Primary

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	474630.00	3721020.00	FENCEPRI	427.83	
2	474830.00	3720825.00	FENCEPRI	426.34	
3	474865.00	3720825.00	FENCEPRI	427.50	
4	474865.00	3721020.00	FENCEPRI	434.71	

Intermediate

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	474637.14	3721013.04	FENCEINT	427.93	
2	474644.29	3721006.07	FENCEINT	428.00	
3	474651.43	3720999.11	FENCEINT	427.78	
4	474658.57	3720992.14	FENCEINT	427.54	
5	474665.71	3720985.18	FENCEINT	427.31	
6	474672.86	3720978.21	FENCEINT	427.08	
7	474680.00	3720971.25	FENCEINT	426.85	
8	474687.14	3720964.29	FENCEINT	426.61	

9	474694.29	3720957.32	FENCEINT	426.38	
10	474701.43	3720950.36	FENCEINT	426.25	
11	474708.57	3720943.39	FENCEINT	426.53	
12	474715.71	3720936.43	FENCEINT	426.72	
13	474722.86	3720929.46	FENCEINT	426.70	
14	474730.00	3720922.50	FENCEINT	426.45	
15	474737.14	3720915.54	FENCEINT	426.24	
16	474744.29	3720908.57	FENCEINT	426.36	
17	474751.43	3720901.61	FENCEINT	426.38	
18	474758.57	3720894.64	FENCEINT	426.28	
19	474765.71	3720887.68	FENCEINT	426.26	
20	474772.86	3720880.71	FENCEINT	426.26	
21	474780.00	3720873.75	FENCEINT	426.27	
22	474787.14	3720866.79	FENCEINT	426.27	
23	474794.29	3720859.82	FENCEINT	426.11	
24	474801.43	3720852.86	FENCEINT	425.94	
25	474808.57	3720845.89	FENCEINT	425.87	
26	474815.71	3720838.93	FENCEINT	425.92	
27	474822.86	3720831.96	FENCEINT	426.10	
28	474838.75	3720825.00	FENCEINT	426.63	
29	474847.50	3720825.00	FENCEINT	426.92	
30	474856.25	3720825.00	FENCEINT	427.21	
31	474865.00	3720834.75	FENCEINT	427.50	
32	474865.00	3720844.50	FENCEINT	427.50	
33	474865.00	3720854.25	FENCEINT	427.50	
34	474865.00	3720864.00	FENCEINT	427.78	
35	474865.00	3720873.75	FENCEINT	428.10	
36	474865.00	3720883.50	FENCEINT	428.43	
37	474865.00	3720893.25	FENCEINT	428.75	
38	474865.00	3720903.00	FENCEINT	429.08	
39	474865.00	3720912.75	FENCEINT	429.40	
40	474865.00	3720922.50	FENCEINT	429.84	
41	474865.00	3720932.25	FENCEINT	430.33	
42	474865.00	3720942.00	FENCEINT	430.82	
43	474865.00	3720951.75	FENCEINT	431.30	
44	474865.00	3720961.50	FENCEINT	431.79	
45	474865.00	3720971.25	FENCEINT	432.27	
46	474865.00	3720981.00	FENCEINT	432.76	
47	474865.00	3720990.75	FENCEINT	433.25	
48	474865.00	3721000.50	FENCEINT	433.73	
49	474865.00	3721010.25	FENCEINT	434.22	

50	474855.21	3721020.00	FENCEINT	434.56	
51	474845.42	3721020.00	FENCEINT	434.32	
52	474835.63	3721020.00	FENCEINT	434.00	
53	474825.83	3721020.00	FENCEINT	433.67	
54	474816.04	3721020.00	FENCEINT	433.34	
55	474806.25	3721020.00	FENCEINT	433.02	
56	474796.46	3721020.00	FENCEINT	432.69	
57	474786.67	3721020.00	FENCEINT	432.31	
58	474776.88	3721020.00	FENCEINT	431.81	
59	474767.08	3721020.00	FENCEINT	431.31	
60	474757.29	3721020.00	FENCEINT	430.86	
61	474747.50	3721020.00	FENCEINT	430.53	
62	474737.71	3721020.00	FENCEINT	430.20	
63	474727.92	3721020.00	FENCEINT	429.88	
64	474718.13	3721020.00	FENCEINT	429.55	
65	474708.33	3721020.00	FENCEINT	429.22	
66	474698.54	3721020.00	FENCEINT	428.92	
67	474688.75	3721020.00	FENCEINT	428.77	
68	474678.96	3721020.00	FENCEINT	428.61	
69	474669.17	3721020.00	FENCEINT	428.46	
70	474659.38	3721020.00	FENCEINT	428.31	
71	474649.58	3721020.00	FENCEINT	428.15	
72	474639.79	3721020.00	FENCEINT	428.00	

Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors
2	FENCEGRD	Receptors generated from Fenceline Grid
3	FENCEINT	Cartesian plant boundary Intermediate Receptors
4	UCART1	Receptors generated from Uniform Cartesian Grid

Meteorology Pathway

Met Input Data

Surface Met Data

Filename: ELSI_v9.SFC

Format Type: Default AERMET format

Profile Met Data

Filename: ELSI_v9.PFL

Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 406.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2012			
Upper Air		2012			
On-Site		2012			

Data Period

Data Period to Process

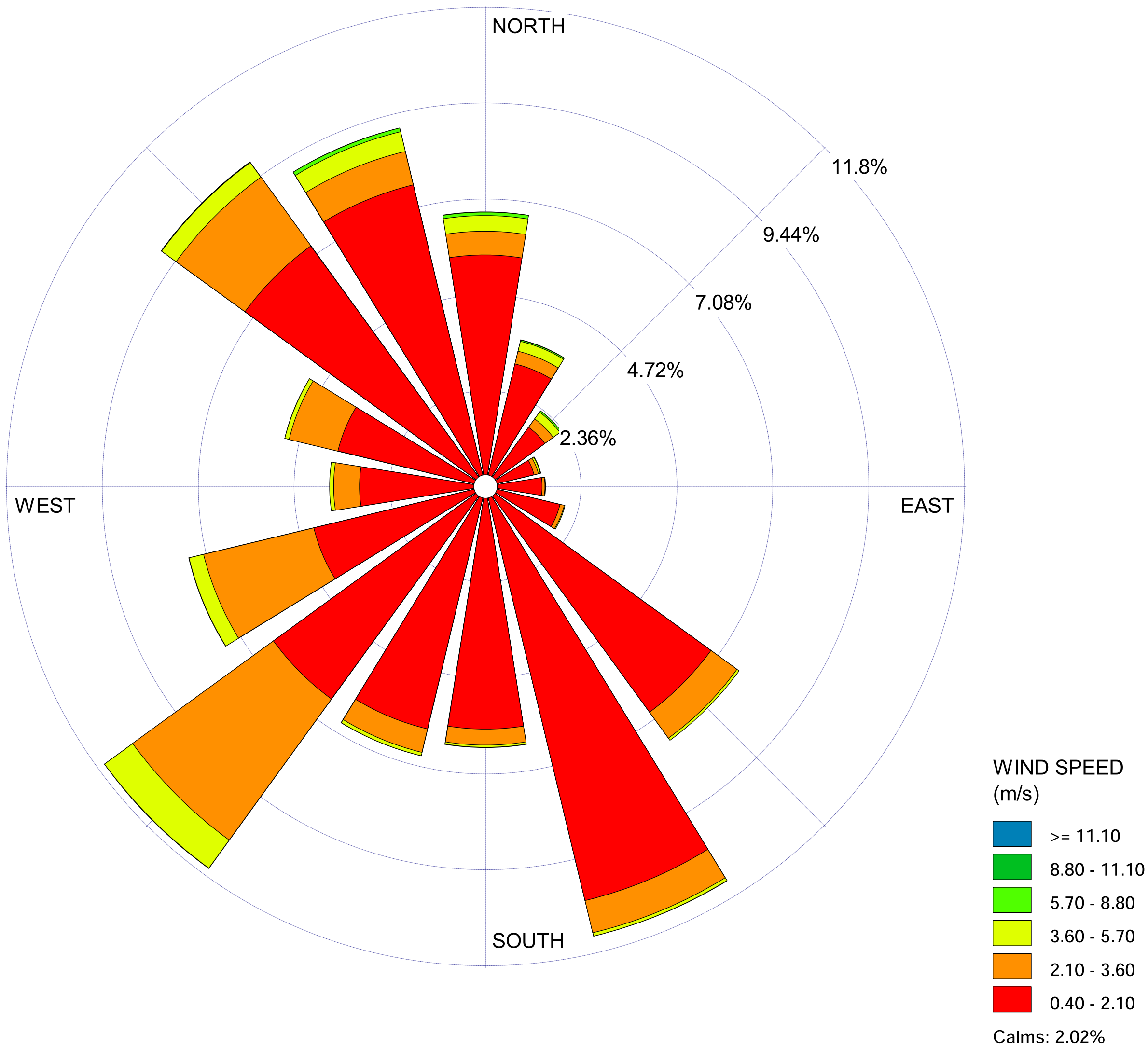
Start Date: 1/1/2012 Start Hour: 1 End Date: 12/31/2016 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

WIND ROSE PLOT:
Station #3171

DISPLAY:
Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2012 - 00:00 **End Date: 12/31/2016 - 23:59**	**South Coast Air Quality Management District**	
		MODELER: **Melissa Sheffer**	
	CALM WINDS: **2.02%**	TOTAL COUNT: **43346 hrs.**	
	AVG. WIND SPEED: **1.36 m/s**	DATE: **5/25/2017**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software