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AIR QUALITY TECHNICAL REPORT

MORRO BAY BATTERY ENERGY STORAGE SYSTEM PROJECT

MORRO BAY, CALIFORNIA

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ACRONYMS AND ABBREVIATIONS

2001 CAP	2001 Clean Air Plan
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Air Dispersion Model
AERMET	AERMOD's Meteorological Preprocessor
APCD	Air Pollution Control District
AQI	Air Quality Index
ARB	California Air Resources Board
ASF	Age-sensitivity Factor
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAMP	Construction Area Management Plan
CAP	Criteria Air Pollutant
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
CPF	Cancer Potency Factor
DPM	Diesel Particulate Matter
EDFZ	Electricity demand forecast zone
EIR	Environmental Impact Report
EMFAC	EMission FACTor model
GHG	Greenhouse Gas
HI	Hazard Index
HRA	Health Risk Assessment
I-SIP	California Infrastructure State Implementation Plan
KSBP	San Luis County Regional Airport meteorological station
lb(s)	pound(s)
MEIR	Maximally Exposed Individual Receptor
mph	miles per hour

NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NSR	New Source Review
OEHHA	California Office of Environmental Health Hazard Assessment
PG&E	Pacific Gas and Electric
PM	Particulate Matter
PM _{2.5}	Fine Particulate Matter Less than 2.5 Micrometers in Aerodynamic Diameter
PM ₁₀	Particulate Matter Less than 10 Micrometers in Aerodynamic Diameter
ppb	Parts Per Billion
ppm	Parts Per Million
ROG	Reactive Organic Gases
SLO	San Luis Obispo
SFDPH	San Francisco Department of Public Health
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
tpy	tons per year
µg/m ³	Micrograms Per Cubic Meter
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

1. INTRODUCTION

Morro Bay Power Company LLC (“Vistra”), is proposing to develop a 600-megawatt (MW) battery energy storage system (BESS) (referred to hereafter as “Project”) in the City of Morro Bay (“City”), California. The project includes three components: (1) construction and operation of a 600-MW Battery Energy Storage System, (2) demolition and removal of the existing Morro Bay Power Plant building and stacks, and (3) adoption of a Master Plan. The BESS Facility would be constructed on a 24-acre portion of the Project Site and would consist of three two-story buildings with a total building area of 91,000 sq ft. Supporting infrastructure, including power conversion systems, substations, and tie-ins to the existing Pacific Gas and Electric substation adjacent to the project site, would also be included. The project also includes demolition of the existing Morro Bay Power Plant building and stacks and backfill and restoration of the site. A Master Plan would be developed in accordance with the requirements of Plan Morro Bay Policy LU-5.4 to change the land use designation of the 24-acre BESS portion of the Project Site from Visitor Serving Commercial to General (Light) Industrial.

This technical report discusses the existing air quality conditions in the Proposed Project area, presents the regulatory framework for air quality management, and analyzes the potential for the Proposed Project to affect existing air quality conditions, both regionally and locally, from activities that emit criteria and non-criteria air pollutants (CAPs). The technical report analyzes short-term CAP emissions that would be generated from the Project’s construction activities and long-term CAP emissions from Project operation. The analysis determines whether the Project emissions are significant in relation to applicable air quality criteria and identifies feasible mitigation measures for significant adverse impacts, if required. This report also includes an analysis of cumulative air quality impacts. The Project’s emissions of greenhouse gases (GHGs) and potential impacts on climate change and the City’s and state’s goals for GHG emissions are discussed in the GHG Technical Report. The Project’s energy usage characteristics are discussed in the Energy Technical Report.

The analysis is based on a review of existing conditions in the Project’s region and air quality regulations administered by the United States Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the San Luis Obispo County Air Pollutant Control District (SLO County APCD). This analysis includes methodologies identified in SLO County APCD’s 2012 California Environmental Quality Act (CEQA) Air Quality Guidelines¹ and its 2017 Clarification Memo.² Calculations were prepared to quantitatively assess the air quality contributions of the Project (see Appendix Tables); this information forms the basis of much of the assessment of air quality impacts presented here.

The air quality impact methodologies and approaches to the analysis (described under “Approach to Analysis”) assume that the Project is built out in a single phase from 2023 to 2028. The Project construction would consist of two components: 1) construction between 2023 and 2026 and subsequent operation of the BESS on approximately 24 acres of the 107-

¹ SLO County APCD, CEQA Air Quality Handbook, 2012, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf, accessed November 2022.

² SLO County APCD, CEQA Air Quality Clarification Memo, 2017, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/FINAL_Clarification%20Memorandum%202017%28UpdatedTable1-1_July2021%29.pdf, accessed November 2022.

acre project site, and 2) demolition and removal of the existing Power Plant building and stack beginning in 2026 with completion in 2028. Operational impacts are analyzed assuming full occupancy immediately after the end of BESS construction in 2026. Further details on the air quality impact methodologies and approaches to the analyses are presented below.

2. ENVIRONMENTAL SETTING

2.1 Climate and Meteorology

The City of Morro Bay is located within the South Central Coast Air Basin ("air basin"), which includes all of San Luis Obispo, Santa Barbara, and Ventura counties. SLO County APCD is the local agency with jurisdictional authority in SLO County. The regional climate can be generally characterized as Mediterranean, with warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. This effect is diminished inland in proportion to distance from the ocean or by major intervening terrain features, such as the coastal mountain ranges. As a result, inland areas are characterized by a considerably wider range of temperature conditions. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90's. Minimum winter temperatures average from the low 30's along the coast to the low 20's inland.

Regional meteorology is largely dominated by a persistent high-pressure area that commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause seasonal changes in the weather patterns of the area. The Pacific High remains generally fixed several hundred miles offshore from May through September, enhancing onshore winds and opposing offshore winds. From November through April the Pacific High tends to migrate southward, allowing northern storms to move across the county. About 90 percent of the total annual rainfall is received during this period. Prevailing winds are onshore winds from the west and north.

Two types of temperature inversions (warmer air on top of cooler air) are created in the area: subsidence and radiational. The subsidence inversion is a regional effect created by the Pacific High in which air is heated as it is compressed and is further enhanced by the presence of relatively cold ocean waters which cool the air below the inversion. This type of inversion generally forms at about 1,000 to 2,000 feet and can occur throughout the year, but it is most evident during the summer months. Radiational, or surface, inversions are formed by the more rapid cooling of air near the ground at night, especially during winter. This type of inversion is typically lower and is generally accompanied by stable air. Both types of inversions limit the dispersal of air pollutants within the regional airshed, with the more stable the air (low wind speeds, uniform temperatures), the lower the amount of pollutant dispersion.

2.2 Ambient Air Quality – Criteria Air Pollutants

As required by the 1970 Federal Clean Air Act, the USEPA initially identified six CAPs that are pervasive in urban environments and for which state and federal health-based ambient air quality standards have been established. The USEPA calls these pollutants "criteria air pollutants," because it has regulated them by developing specific public-health-based and welfare-based criteria as the basis for setting permissible levels. Ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead are the six CAPs originally identified by the USEPA. Since adoption of the 1970 act, subsets of PM have been identified for which permissible levels have been established. These include PM of 10 microns in diameter or less (PM₁₀) and PM of 2.5 microns in diameter or less (PM_{2.5}).

SLO County APCD is the regional agency with jurisdiction for regulating air quality within SLO County. The region's air quality monitoring network provides information on ambient

concentrations of CAPs at various monitoring sites. **Table 1**³ presents the most recent highest annual CAP concentrations at the Morro Bay site, and other available sites if the Morro Bay site data are not available. **Table 1** also compares measured pollutant concentrations with the most stringent applicable ambient air quality standards (state or federal). These concentrations are health-based standards established with an adequate margin of safety. To determine attainment with air quality standards, exceedances are assessed on a region-wide basis (and in some cases over a 3-year period). Concentrations shown in boldface type indicate only a localized exceedance of the standard. Since SLO County has never exceeded State CO standards since 1975 and because of the consistently low lead concentration in the region, ambient CO and lead concentrations are not monitored.

TABLE 1: SUMMARY OF PROJECT AREA AIR QUALITY MONITORING DATA

Pollutant ^A	Most Stringent Applicable Standard ^B	Concentrations Measured (2020) ^C
Ozone		
Maximum 1-Hour Concentration (ppb)	90	72
Maximum 8-Hour Concentration (ppb)	70	58
Suspended Particulates (PM₁₀)		
Maximum 24-Hour Concentration (µg/m ³)	50	131
Annual Average (µg/m ³)	20	15.8
Suspended Particulates (PM_{2.5})		
Maximum 24-Hour Concentration (µg/m ³)	35	113.7
Annual Average (µg/m ³)	12	7.92
Nitrogen Dioxide (NO₂)		
Maximum 1-Hour Concentration (ppb)	100	33
Notes: ppb = parts per billion; µg/m ³ = micrograms per cubic meter		
^A SLO County does not conduct monitoring for CO and lead, so the concentrations of these two criteria air pollutants are not available		
^B The Most Stringent Applicable Standard is either Federal or California Standard, based on the San Luis Obispo Attainment Status Table available at: https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/AttainmentStatus29January2019.pdf		
^C Concentration measured are from the Morro Bay monitoring site, or other sites in SLO County if the Morro Bay site data are not available		

Source: SLO County APCD, 2020 Annual Air Quality Report

Table 2⁴ presents the California and Federal Ambient Air Quality Standards for different CAPs and their respective attainment statuses for SLO County. An attainment status shown

³ SLO County APCD, Annual Air Quality Report, 2020, <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/%28E-2%29.pdf>, accessed November 2022.

⁴ SLO County, Attainment Status, 2019, <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/AttainmentStatus29January2019.pdf>, accessed November 2022.

in boldface type with an "N" indicates that SLO County has a non-attainment status for the given pollutant.

TABLE 2: STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR SLO COUNTY

Pollutant	Averaging Time	State (CAAQS ^A)		Federal (NAAQS ^B)	
		Standard	Attainment Status	Standard	Attainment Status
Ozone	1-hour	0.09 ppm	N	NA	See Note D
	8-hour	0.070 ppm	N	0.070 ppm ^C	
Carbon Monoxide (CO)	1-hour	20 ppm	A	35 ppm	U
	8-hour	9.0 ppm	A	9 ppm	U
Nitrogen Dioxide (NO ₂)	1-hour	0.18 ppm	A	0.100 ppm ^E	U
	Annual	0.030 ppm	A	0.053 ppm	U
Sulfur Dioxide (SO ₂)	1-hour	0.25 ppm	A	0.075 ppm ^F	U
	24-hour	0.04 ppm	A	0.14 ppm	U
	3-hour	NA	A	0.5 ppm	U
Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	N	150 µg/m ³	U
	Annual	20 µg/m ³	N	NA	A
Fine Particulate Matter (PM _{2.5})	24-hour	NA	A	35 µg/m ³	U
	Annual	12 µg/m ³	A	12.0 µg/m ³	A
Sulfates	24-hour	25 µg/m ³	A	NA	U
Lead	30-day	1.5 µg/m ³	A	NA	NA
	Cal. Quarter	NA	NA	1.5 µg/m ³	NA
	Rolling 3-month	NA	NA	0.15 µg/m ³	NA
Hydrogen Sulfide	1-hour	0.03 ppm	A	NA	NA

Notes: A = Attainment; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; **N** = Non-attainment; U = Unclassified; NA = Not Applicable, no applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter

^A CAAQS for ozone, CO (except 8-hour Lake Tahoe), SO₂ (1-hour and 24-hour), NO₂, PM, and visibility reducing particles are values that are not to be exceeded. All other state standards shown are values not to be equaled or exceeded.

^B NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 8-hour ozone standard is attained when the 3-year average of the fourth highest daily concentration is 0.070 ppm or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than the standard. The 24-hour PM_{2.5} standard is attained when the 3-year average of the 98th percentile is less than the standard.

^C This federal 8-hour ozone standard was approved by USEPA in October 2015 and became effective on December 28, 2015.

^D Non-attainment Eastern SLO County/ Attainment Western SLO County.

^E To attain the 1-hour NO₂ NAAQS, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations must not exceed 100 parts per billion.

^F To attain the 1-hour SO₂ NAAQS, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations must not exceed 75 parts per billion.

Source: SLO County Attainment Status, 2019

2.2.1 Ozone

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG, also sometimes referred to as volatile organic compounds [VOCs] by some regulatory agencies) and oxides of nitrogen (NO_x) in the presence of sunlight. The main sources of ROG and NO_x, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels. If project-generated concentrations of ROG and/or NO_x exceed the applicable thresholds of significance, concentrations of ground level ozone resulting from these pollutants could potentially result in significant adverse human health impacts.

2.2.2 Carbon Monoxide

CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration. Concentration of carbon monoxide is a direct function of vehicle idling time and, thus, traffic flow conditions. Transport of CO emissions is extremely limited; it disperses rapidly from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to a congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). Emissions thresholds established for CO apply to direct or stationary sources.

Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal.

2.2.3 Particulate Matter

PM is a class of air pollutants that consists of a complex mix of solid and liquid airborne particles from human-made and natural sources. Particulate matter is measured in two size ranges: PM₁₀ and PM_{2.5}. According to CARB, studies in the United States and elsewhere “have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks,” and studies of children’s health in California have demonstrated that particle pollution “may significantly reduce lung function growth in children.”⁵ CARB also reports that statewide attainment of PM standards could prevent thousands of premature deaths, lower hospital admissions for cardiovascular and respiratory disease and asthma-related emergency room visits, and avoid hundreds of thousands of episodes of respiratory illness in California.⁶ While particulate matter has many natural sources like wildfire, human derived sources such as vehicle exhaust, road dust, mineral quarries, grading, demolition, agricultural tilling, and burning are major contributors to exceedances in SLO County. Inter-regional transport of particles from the San Joaquin Valley also contributed to PM exceedances.⁷

⁵ ARB, Recent Research Findings: Health Effects of Particulate Matter and Ozone Air Pollution, November 2007, p. 1.

⁶ Ibid.

⁷ SLO County APCD, 2020 Annual Air Quality Report, 2020, <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/%28E-2%29.pdf>, accessed November 2022.

2.2.4 Nitrogen Dioxide

NO₂ is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Aside from its contribution to ozone formation, NO₂ can increase the risk of acute and chronic respiratory disease and reduce visibility. NO₂ may be visible as a coloring component of the air on high-pollution days, especially in conjunction with high ozone levels. In 2010, the USEPA implemented a new 1-hour NO₂ standard (0.10 ppm), which is presented in **Table 2**.

2.2.5 Sulfur Dioxide

SO₂ is a colorless, acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO₂ has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease.⁸ Monitoring data show that SLO County currently meets the state standard for SO₂.

2.2.6 Lead

Leaded gasoline (phased out from use in automobiles in the United States beginning in 1973), paint (on older houses, cars), smelters (metal refineries), and manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects, which put children at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline in automobiles was eliminated.

Ambient lead concentrations are monitored only on an as-warranted, site-specific basis in California. On October 15, 2008, the USEPA strengthened the NAAQS for lead by lowering it from 1.50 µg/m³ to 0.15 µg/m³ on a rolling 3-month average. The USEPA revised the monitoring requirements for lead in December 2010.⁹ These requirements focus on airports and large urban areas and resulted in an increase in 76 monitors nationally.

2.2.7 Naturally Occurring Asbestos (NOA)

Asbestos is commonly found in serpentine rock, which is in many regions of SLO County. If a project site is located within the green "buffer" area on the SLO County APCD NOA map, then the Proposed Project would need to comply with CARB's Airborne Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (17 CCR 93105). While Project construction activities would occur outside of the buffer area, demolition activities would partially occur within the buffer area; therefore, the Proposed Project is subject to the NOA ATCM.

2.3 Air Quality Index (AQI)

The USEPA developed the AQI scale to make the public health impacts of air pollution concentrations easily understandable. The AQI, much like an air quality "thermometer," translates daily air pollution concentrations into a number on a scale between 0 and 500, and assigns the number to one of the following six color-coded ranges that rank air quality:

⁸ ARB, Sulfur Dioxide & Health, <https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health>, accessed November 2022.

⁹ USEPA, Fact Sheet: Revisions to Lead Ambient Air Quality Monitoring Requirements, https://www.epa.gov/sites/production/files/2016-03/documents/leadmonitoring_finalrule_factsheet.pdf, accessed November 2022.

- **Good (Green, AQI = 0 to 50):** Air quality is considered satisfactory, and air pollution poses little or no risk.
- **Moderate (Yellow, AQI = 51 to 100):** Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution. Unusually sensitive people should consider reducing prolonged or heavy outdoor exertion.
- **Unhealthy for Sensitive Groups (Orange, AQI = 101 to 150):** Although the general public is not likely to be affected at this AQI range, people with lung disease as well as older adults and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults, and children are at greater risk from the presence of particles in the air. Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged or heavy outdoor exertion.
- **Unhealthy (Red, AQI = 151 to 200):** Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects. Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
- **Very Unhealthy (Purple, AQI = 201 to 300):** The rating of “very unhealthy” air quality would trigger a health alert signifying that everyone may experience more serious health effects. Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit outdoor exertion.
- **Hazardous (Maroon, AQI = 301 to 500):** The rating of “hazardous” air quality would trigger health warnings of emergency conditions. The entire population is more likely to be affected. Everyone, especially children, should limit outdoor exertion.

The AQI numbers refer to specific amounts of pollution in the air. They are based on the federal air quality standards for ozone, CO, NO₂, SO₂, PM₁₀, and PM_{2.5}. In most cases, the federal standard for these air pollutants corresponds to the number 100 on the AQI chart. If the concentration of any of these pollutants rises above its respective standard, the air quality can be unhealthy for the public.

2.4 Toxic Air Contaminants and Local Health Risks and Hazards

In addition to CAPs, individual projects may emit toxic air contaminants (TACs). TACs collectively refer to a diverse group of air pollutants that can cause chronic (i.e., of long duration) and acute (i.e., severe but short-term) adverse effects on human health, including carcinogenic effects.¹⁰ Human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

Unlike CAPs, TACs are not subject to ambient air quality standards but are regulated by SLO County APCD using a risk-based approach to determine which sources and pollutants to

¹⁰ “Carcinogenic” indicates that scientific studies have shown that exposure to a substance or mixture of substances at certain levels for some period of time has the potential to promote the formation of cancer.

control as well as the degree of control. A health risk assessment (HRA) is an analysis that estimates human health exposure to toxic substances and, when considered together with information regarding the toxic potency of the substances, provides quantitative estimates of health risks.¹¹ Diesel PM (DPM), a by-product of diesel fuel combustion, is a major source of TAC. CARB identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.¹² The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

2.4.1 Fine Particulate Matter

Exposures to fine PM (PM_{2.5}) are strongly associated with mortality, respiratory diseases, and lung development in children, as well as other end results, such as hospitalization for cardiopulmonary disease.¹³ In April 2011, the USEPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*. In this document, USEPA staff concludes that the then-current federal annual PM_{2.5} standard of 15 µg/m³ should be revised to a level within the range of 13 to 11 µg/m³, with evidence strongly supporting a standard within the range of 12 to 11 µg/m³. The current California and National annual average ambient air quality standard for PM_{2.5} is 12 µg/m³.

2.4.2 Toxic Air Contaminants

Certain air pollutants have been classified as TACs because they are known to increase the risk of cancer and/or other serious health effects, ranging from eye irritation to neurological damage. Air toxics can come from a variety of sources including on-road mobile sources, all types of burning, business and industry, indoor sources like paints and solvents, and natural sources like wildfires. Negative health impacts from nearly 200 TACs have been estimated using toxicity information and methods developed by California's Office of Environmental Health Hazard Assessment (OEHHA)¹⁴.

Generally, TACs are classified into carcinogens and non-carcinogens, depending on the level of physiological effects associated with the exposure to a pollutant. Carcinogens are TACs with the potential to cause cancer effects. Non-carcinogenic substances typically have a safe level of exposure below which no negative health impacts occur due to exposure. Chronic and acute exposures to non-carcinogens are expressed as a Hazard Index (HI), which is the ratio of expected exposure levels to an acceptable reference exposure level¹⁵. Monitoring stations have been established in California to measure the ambient concentrations of carcinogenic TACs. Currently, there is no ambient TAC monitoring site in SLO County.

¹¹ In general, a health risk assessment is required if the air district concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant is then subject to a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more TACs.

¹² ARB, Fact Sheet: The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines, October 1998.

¹³ SFDPH, Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review, May 2008.

¹⁴ OEHHA, Toxic Air Contaminants, <https://oehha.ca.gov/air/toxic-air-contaminants>, accessed November 2022.

¹⁵ BAAQMD, CEQA Air Quality Guidelines, May 2017, https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed November 2022.

2.4.3 Roadway Related Pollutants

Motor vehicles are responsible for a large share of air pollution, especially in California. Vehicle tailpipe emissions contain diverse forms of particles and gases, and vehicles also contribute to particulates by generating road dust through tire wear. Epidemiological studies¹⁶ have demonstrated that people living close to freeways or busy roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections, and decreased pulmonary function and lung development in children. While SLO County APCD CEQA guidelines do not identify a quantitative impact threshold for roadway related pollutants, the Bay Area Air Quality Management District (BAAQMD) requires that roadway health impact should be analyzed for receptors within 1,000 feet from the nearest significant traffic volume roadway (i.e., defined as a freeway or arterial roadway with greater than 10,000 vehicles per day).¹⁷

2.4.4 Diesel Particulate Matter

As previously stated, CARB identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. Subsequent regulations approved by CARB apply to new trucks and diesel fuel. With new controls and fuel requirements, a medium-heavy duty or heavy-heavy duty truck built in 2010 or later has particulate exhaust emissions that are over 50 times lower than a medium-heavy duty or heavy-heavy duty truck built before 1990.¹⁸ The regulations are anticipated to result in an 80 percent decrease in statewide diesel health risk in 2020 as compared with the diesel risk in 2000. Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and the elderly, who often have chronic health problems.

2.5 Sensitive Receptors

Air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Population subgroups sensitive to the health effects of air pollutants include the elderly and the young, those with higher rates of respiratory disease, such as asthma and chronic obstructive pulmonary disease, and those with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases. These sensitive receptors are commonly associated with specific land uses such as residential dwelling units, schools, day care centers, nursing homes, and hospitals. In addition, certain air pollutants, such as CO, only have significant effects if they directly affect a sensitive population. SLO County APCD's

¹⁶ Brugge, D., Durant, J. L., & Rioux, C. (2007). Near-highway pollutants in motor vehicle exhaust: a review of epidemiologic evidence of cardiac and pulmonary health risks. *Environmental health*, 6(1), 23.

¹⁷ BAAQMD, CEQA Air Quality Guidelines, May 2017, https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed November 2022.

¹⁸ ARB, Methods to Find the Cost-Effectiveness of Funding Air Quality Projects for Evaluating Motor Vehicle Registration Fee Projects and Congestion Mitigation and Air Quality Improvement (CMAQ) Projects Table 5-A, May 2005, https://ww2.arb.ca.gov/sites/default/files/2020-06/Congestion_Mitigation_Air%20Quality_Improvement_Program_cost-effectiveness_methods_may2005.pdf, accessed November 2022.

CEQA Guidelines suggests that the proximity of sensitive individuals (receptors) to a construction site constitutes a special condition and may require a more comprehensive evaluation of toxic DPM impacts. SLO County APCD also identifies areas where sensitive receptors are most likely to spend time such as schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The proximity of sensitive receptors to motor vehicles is an air pollution concern. Vehicles also contribute to particulates by generating road dust and through brake and tire wear.

Existing areas evaluated in this analysis include a representative sample of permanent residents living in the adjacent RV park, located approximately 400 feet from the northern border of the construction area, and a baseball park located within 1,000 feet of the northern tip of the construction area. The health risk impact analysis includes locations out to 1,000 feet from the Proposed Project site, which is conservative because the maximum impacts identified from the Proposed Project would be adjacent to the site. All off-site sensitive receptors are evaluated using residential exposure assumptions consistent with OEHHA Guidance.¹⁹

2.6 Existing Stationary Sources of Air Pollution

According to a public information request returned by SLO County APCD, there are as many as fourteen permitted operational sources in a one-mile radius. These sources include four gas stations, a wastewater treatment plant, and retail stores. Though risk estimates are not available for these sources through SLO County APCD, all of these sources contribute to the background levels of cancer risk.

2.7 Major Roadways Contributing to Air Pollution

Nearby on-road traffic emits PM_{2.5}, DPM and other air pollutants that can harm the health of workers at the Project site. The closest major freeway, SR-1, is approximately 2,000 feet away from the Project site. According to BAAQMD's recommended screening method²⁰, on-road mobile source impacts would occur if the nearest significant traffic volume roadway is within 1,000 feet of the Project. Therefore, workers on the Project site are unlikely to be adversely affected by the air pollutants emitted from on-road motor vehicles.

¹⁹ OEHHA, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf, accessed November 2022.

²⁰ BAAQMD, CEQA Air Quality Guidelines Update, 2017, http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed November 2022.

3. REGULATORY FRAMEWORK

3.1 Federal Regulations

3.1.1 Federal Clean Air Act

The 1970 Clean Air Act (last amended in 1990) requires that regional planning and air pollution control agencies prepare a regional air quality plan to outline the measures by which both stationary and mobile sources of pollutants are planned to be controlled in order to achieve all standards by the deadlines specified in the act. These ambient air quality standards are intended to protect the public health and welfare, and they specify the concentration of pollutants (with an ample margin of safety) to which the public can be exposed without adverse health effects. They are designed in consideration of those segments of the public most susceptible to respiratory distress, including asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels that are somewhat above ambient air quality standards without observing adverse health effects.

The current attainment status for SLO County, with respect to federal standards, is summarized in **Table 2**. In general, the air basin experiences low concentrations of most pollutants, except for ozone.

3.1.2 Emission Standards for New Off-Road Equipment

Before 1994, there were no standards to limit the amount of emissions from off-road equipment. In 1994, USEPA established emission standards for hydrocarbons, NO_x, CO, and PM to regulate new pieces of off-road equipment. These emission standards came to be known as Tier 1. Since that time, increasingly more stringent Tier 2, Tier 3, and Tier 4 (interim and final) standards were adopted by USEPA, as well as by CARB. Each adopted emission standard was phased in over time. New engines built in and after 2015 across all horsepower sizes must meet Tier 4 final emission standards. In other words, new manufactured engines cannot exceed the emissions established for Tier 4 final emissions standards. This has resulted in increasingly lower emissions from off-road equipment over time.

3.2 State Regulations

3.2.1 California Clean Air Act

Although the Federal Clean Air Act established the NAAQS, individual states retained the option to adopt more stringent standards and to include other pollution sources. California had already established its own air quality standards when federal standards were established, and because of the unique meteorological problems in California, there is considerable diversity between the state and national ambient air quality standards, as shown in **Table 2**. California ambient standards are at least as protective as national ambient standards, except for the 1-hour NO₂ and SO₂ standards, and are often more stringent.

In 1988, California passed the California Clean Air Act (California Health and Safety Code sections 39600 et seq.), which, like its federal counterpart, required the designation of areas as attainment or non-attainment, but based these designations on state ambient air quality standards rather than the federal standards. As indicated in **Table 2**, SLO County is

designated as “non-attainment” for state ozone and PM₁₀ standards, and as “attainment” or “unclassified” for other pollutants.

3.2.2 Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act

TACs in California are primarily regulated through the Tanner Air Toxics Act (Assembly Bill 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Assembly Bill 2588), also known as the Hot Spots Act. Assembly Bill 1807 created a program with a two-step process of risk identification followed by risk management. TAC emissions are identified from a variety of sources (risk identification), after which an ATCM is developed (risk management). CARB has twenty-six mobile and stationary source ATCMs.²¹ The fire pump is subject to the ATCM for Stationary Compression Engines (17 CCR 93115) and demolition activities would be subject to the NOA ATCM (17 CCR 93105).

Assembly Bill (AB) 2588 requires facilities to report the type and quantity of specified toxics released into the air by stationary sources. The Proposed Project does not include any stationary sources that would be subject to AB 2588 reporting requirements.

To date, CARB has identified more than 21 TACs in addition to adopting USEPA’s list of hazardous air pollutants as TACs.

3.2.3 California Air Resources Board’s In-Use Off-Road Diesel-Fueled Fleets Regulation

In 2007, CARB adopted a regulation to reduce DPM and NO_x emissions from in-use off-road heavy-duty diesel vehicles in California.²² The regulation imposes limits on vehicle idling and requires fleets to reduce emissions by retiring, replacing, repowering, or installing exhaust retrofits to older engines. In December 2010, major amendments were made to the regulation, including a delay of the first performance standards compliance date to no earlier than January 1, 2014.

3.2.4 Sales of GHG-emitting Cars After 2035

In August 2022, CARB issued a rule that will require that all new cars sold in the state by 2035 be free of GHG emissions. The rule also sets interim targets, requiring that 35 percent of new passenger vehicles sold by 2026 produce zero emissions. That requirement climbs to 68 percent by 2030. This will rapidly reduce fossil-fuel fired vehicles in the fleet in the state, which would also reduce criteria pollutant emissions from the reduction of gasoline and diesel consumption.

3.3 Regional Regulations and Plans

3.3.1 San Luis Obispo County Air Pollution Control District

SLO County APCD is the local agency working to protect the health of over 283,000 residents in SLO County by preserving good air quality. San Luis Obispo Council of Governments, cities and counties, local transportation agencies, and various non-governmental organizations also participated in efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of

²¹ ARB, Airborne Toxic Control Measures, <https://ww2.arb.ca.gov/resources/documents/airborne-toxic-control-measures>, accessed November 2022.

²² California Code of Regulations, title 13, sections 2449, 2449.1, 2449.2, and 2449.3.

extensive education and public outreach programs. SLO County APCD is responsible for implementing regulations and programs to reduce air pollution and assist the county in reaching federal and state ambient air quality standards.

SLO County APCD does not have authority to regulate emissions from motor vehicles. Specific rules and regulations adopted by SLO County APCD limit the emissions that can be generated by various stationary sources and identify specific pollution reduction measures that must be implemented in association with various activities. These rules regulate not only emissions of the six CAPs, but TAC emissions sources are also subject to these rules and are regulated through the district's permitting process and standards of operation.

3.3.1.1 SLO County APCD CEQA Air Quality Guidelines

SLO County APCD developed quantitative thresholds of significance for its CEQA Air Quality Guidelines in 2012²³ and subsequently developed a Clarification Memo in November 2017.²⁴ The 2017 CEQA Memo provide updated measures for mitigating potential air quality impacts consistent with CEQA requirements.

The CEQA guidelines specify recommended thresholds of significance for operational and construction criteria air pollutants and precursor emissions, GHG emissions, and risks and hazards associated with TACs from an individual project and cumulative impact. These thresholds are outlined below.

Operational Emissions Thresholds

Most adverse impacts on air quality come from the long-term operations of a project. **Table 3**, Criteria Air Pollutant Threshold, provides SLO County's project-level operational thresholds of significance for criteria air pollutants.

Construction Emissions Thresholds

Construction activities result in temporary impacts that, depending on the size and type of project, commonly occur in limited time periods. SLO County APCD has developed specific daily and quarterly numeric thresholds that apply to projects within the county. Daily thresholds are for projects that would be completed in less than one quarter (90 days). SLO County APCD's quarterly construction thresholds are applicable to the proposed project because construction would last for more than one quarter.

- **ROG and NO_x Emissions**

- Quarterly – Tier 1. For construction projects exceeding the 2.5 ton/quarter threshold, Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment are required. Off-site mitigation may be required if feasible mitigation measures are not implemented, or if no mitigation measures are feasible for the project; and

²³ SLO County APCD, CEQA Air Quality Handbook, 2012, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf, accessed November 2022.

²⁴ SLO County APCD, CEQA Air Quality Clarification Memo, 2017. https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/FINAL_Clarification%20Memorandum%202017%28UpdatedTable1-1_July2021%29.pdf, accessed November 2022.

- Quarterly – Tier 2. For construction projects exceeding the 6.3 ton/quarter threshold, Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation are required.
- **DPM Emissions**
 - Quarterly - Tier 1: For construction projects lasting more than one quarter, exceedance of the 0.13 tons/quarter threshold requires Standard Mitigation Measures, BACT for construction equipment; and,
 - Quarterly - Tier 2: For construction projects lasting more than one quarter, exceedance of the 0.32 ton/quarter threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Area Management Plan (CAMP), and off-site mitigation.
- **PM₁₀, Dust Emissions**
 - Quarterly: Exceedance of the 2.5 tons/quarter threshold requires Fugitive PM₁₀ Mitigation Measures and may require the implementation of a CAMP.

3.3.1.2 The SLO County Ozone Emergency Episode Plan

The SLO County Ozone Emergency Episode Plan²⁵ developed in 2020 provides the basis for taking actions when ambient ozone concentrations reach a level that could endanger public health in SLO County. It identifies criteria for the four levels of emergency episodes and related components for public announcements whenever an episode has been identified. This document will be incorporated into the California Infrastructure State Implementation Plan (I-SIP).

3.3.1.3 2001 Clean Air Plan

As part of the California Clean Air Act, SLO County APCD is required to develop a plan to achieve and maintain the state ozone standard by the earliest practicable date. The 2001 Clean Air Plan (2001 CAP)²⁶ was adopted by SLO County APCD on March 26, 2002. This remains the currently adopted plan. The 2001 CAP is the third update to the 1991 CAP, which was adopted by SLO County APCD in January 1992. The 1991 CAP contained a comprehensive set of control measures designed to reduce ozone precursor emissions from a wide variety of stationary and mobile sources. The 1995 CAP was an extensive update of the 1991 CAP but with fewer control strategies. The 2001 CAP is primarily a continuation of the 1995 CAP and proposed no new control measures for adoption. Implementation of the control measures adopted through previous plans is expected bring the county into attainment of the State ozone standard. These controls, combined with measures implemented by CARB, are expected to reduce over 5 tons per day of ROG emissions by the year 2003, with NO_x reductions projected at over 12 tons per day.

²⁵ SLO County APCD, SLO County Ozone Emergency Episode Plan, 2020, <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/San%20Luis%20Obispo%20County%20Ozone%20Emergency%20Episode%20Plan%202022%20January%202020.pdf>, accessed November 2022

²⁶ SLO County APCD, 2001 Clean Air Plan, 2001, <https://www.slocleanair.org/rules-regulations/clean-air-plan.php> accessed November 2022.

3.4 Local Regulations and Plans

3.4.1 City of Morro Bay General Plan

The General Plan for the City of Morro Bay contains several environmental management policies aimed at air quality and sustainability within the city. They are outlined below²⁷:

- POLICY C-3.1: State Attainment Levels. Reach and maintain state attainment levels for PM₁₀
- POLICY C-3.2: Interagency Cooperation. Continue to cooperate with SLO County APCD and other regional, state, and national agencies to implement the County Clean Air Plan, including enforcing air quality standards and improving air quality.
- POLICY C-3.3: Pollutant Sites. Identify opportunities to locate new air pollutant sources away from the general population.
- POLICY C-4.1: Emissions Reduction Target. By 2040, reduce GHG emissions by 53.33 percent below the 2020 target, placing the community on a path to meet the state's 2050 GHG emissions reduction goals.
- POLICY C-4.4: GHG Reduction Strategies. Pursue a variety of a GHG reduction strategies across the transportation, residential, waste, and commercial sectors, commensurate with their share of the community's GHG emissions

²⁷ Plan Morro Bay, 2021, <https://www.morrobayca.gov/DocumentCenter/View/15424/Plan-Morro-Bay-GP-LCP-Final>, accessed November 2022.

4. IMPACTS AND MITIGATION MEASURES

4.1 Significance Thresholds

Consistent with Appendix G of the California CEQA Guidelines, for the impacts analyzed in this section, the Proposed Project would have a significant impact related to air quality if it were to:

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

4.2 Approach to Analysis

As stated in the CEQA Guidelines²⁸ the Proposed Project would result in two types of potential air quality impacts: impacts from construction activities and impacts from project operations due to increased vehicle travel, energy consumption, consumer product usage, landscaping, and architectural coating.

Each of these types of direct impacts is, in turn, separated into impacts from CAP emissions, which are generally regional in nature, and impacts associated with exposure to PM_{2.5} and TACs, which are localized health impacts expressed in terms of exposure to PM_{2.5} concentrations, probability of developing cancer per 10 in a million persons exposed to TAC concentrations, and non-cancer chronic HI. The assessment of CAP impacts addresses the second and third bulleted significance thresholds identified above. The assessment of exposure to PM_{2.5} concentrations and localized health risk addresses the fourth bulleted significance threshold identified above.

The air quality analysis conducted for this impact assessment uses emission factors, models, and tools distributed by a variety of agencies, including CARB, the California Air Pollution Officers Association, OEHHA, and the USEPA. Additionally, the analysis includes methodologies identified in the SLO County APCD CEQA Handbook^{29,30}. These analyses are described in detail in Section 4.9, and assumptions are shown in **Appendix A**.

4.3 Air Quality Plan

The applicable air quality plan is SLO County APCD's 2001 Clean Air Plan. Consistency with the 2001 Clean Air Plan can be determined if the Proposed Project supports the goals of the plan, includes applicable control measures from the plan, and would not disrupt or hinder implementation of any control measures from the plan. Consistency with the 2001 Clean Air

²⁸ SLO County APCD, CEQA Air Quality Handbook, 2012, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf, accessed November 2022.

²⁹ Ibid

³⁰ SLO County APCD, 2017 Clarification Memo, 2017, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/FINAL_Clarification%20Memorandum%202017%28UpdatedTable1-1_July2021%29.pdf, accessed November 2022.

Plan is the basis for determining whether the Proposed Project would conflict with or obstruct implementation of an applicable air quality plan, the first bulleted significance criterion previously identified.

4.4 Criteria Air Pollutants

As described above under “Regulatory Framework,” SLO County experiences low concentrations of most pollutants when compared to federal or state standards and is designated as either in attainment or unclassified for most criteria pollutants, except for ozone and PM₁₀, for which these pollutants are designated as non-attainment for either the state or federal standards.

By definition, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project’s individual emissions are considered to contribute to the existing, cumulative air quality conditions. According to the SLO County APCD CEQA guidelines, if a project’s contribution to cumulative air quality conditions is considerable, then the project’s impact on air quality would be considered significant.³¹

Table 3 identifies quantitative CAP significance thresholds published by SLO County APCD. The emission thresholds are based on the California Health & Safety Code and the CARB Carl Moyer Guidelines.³²

TABLE 3: CRITERIA AIR POLLUTANT THRESHOLDS

Pollutant	Construction			Operation	
	Daily (lbs)	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)	Daily (lbs)	Annual (tons)
ROG+ NO _x	137	2.5	6.3	25	25
Diesel Particulate Matter (DPM)	7	0.13	0.32	1.25	--
Fugitive Particulate Matter (PM ₁₀), Dust	--	2.5	--	25	25

Source: SLO County APCD, CEQA Air Quality Handbook, 2012

The construction emission thresholds include both daily and quarterly limits. For projects lasting longer than a quarter, quarterly threshold will be applied. For construction projects, exceedance of the quarterly Tier 1 threshold requires Standard Mitigation Measures and BACT for construction equipment. Off-site mitigation may be required if feasible mitigation measures are not implemented, or if no mitigation measures are feasible for the project. If mitigated emissions (i.e., those that include Standard Mitigation Measures and BACT) exceed

³¹ SLO County APCD, CEQA Air Quality Handbook, 2012, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf, accessed November 2022.

³² Ibid, p2-2

the Tier 2 threshold (6.3 tons per quarter), then implementation of a Construction Activity Management Plan (CAMP) and off-site mitigation is additionally required.

The operation emission thresholds include both daily and annual limits. Projects that exceed the daily limits for ROG+ NO_x have the potential to cause significant air quality impacts and should be submitted to SLO County APCD for review. On-site mitigation measures are recommended to reduce air quality impacts to a level of insignificance. Projects that exceed the annual ROG+ NO_x limits require the preparation of an environmental impact report (EIR). Projects that emit more than 1.25 lbs/day of DPM need to implement on-site BACT measures. If sensitive receptors are within 1,000 feet of the project site, an HRA may also be required. Projects that emit more than 25 lbs/day or 25 tons/year of fugitive PM need to implement permanent dust control measures to mitigate the emissions below these thresholds or provide suitable off-site mitigation approved by the SLO County APCD.³³

4.5 Other Criteria Pollutants

Regional concentrations of SO₂ in SLO County are below the state standards. Construction-related SO₂ emissions represent a negligible portion of the total basin-wide emissions. Given SLO County's attainment status and the limited SO₂ emissions that could result from the Proposed Project, the Proposed Project would not result in a project or cumulatively considerable net increase in SO₂, and a quantitative analysis is not required.

4.6 Local Health Risks and Hazards

In addition to CAPs, individual projects may emit TACs. These include TACs from vehicles, construction equipment, demolition, and operations. These potential sources of TACs are discussed Section 4.9.

As part of the environmental review for the Proposed Project, an HRA was conducted to provide quantitative estimates of health risks from exposures to TACs because of the Proposed Project. There are two health risk thresholds put forth by SLO County APCD, and the relevant threshold depends on the planned project type. Type A projects are "new proposed land use projects that generate toxic air contaminants (such as gasoline stations, distribution facilities or asphalt batch plants) that impact sensitive receptors." Type B projects are those that "...will place sensitive receptors (e.g., residential units) in close proximity to existing toxics sources (e.g., freeway)." The Proposed Project is a Type A project and would therefore be considered to have a significant health risk impact if it would result in excess cancer risk greater than 10.0 in a million³⁴.

4.7 Cumulative Impacts

As discussed above, the contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and future projects in the vicinity of the Proposed Project also have or will contribute to adverse regional air quality impacts on a cumulative basis. Typically, no single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. As described above, the project-level thresholds for CAPs are based on levels at which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase

³³ Ibid

³⁴ SLO County APCD, CEQA Air Quality Handbook, April 2012, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf, accessed November 2022.

in CAPs. Therefore, if a project's emissions are below the project-level thresholds, the project would not be considered to result in a considerable contribution to cumulative regional air quality impacts. Similarly, for air pollution associated HRA, the cumulative impacts can be analyzed based on the Project's health risks relative to risk thresholds. This is because risk is localized and all nearby projects would be compliant with SLO County APCD rule requirements.

4.8 Odor Impacts

For odors, SLO County APCD CEQA Guidelines states that *"If a project has the potential to cause an odor or other nuisance problem which could impact a considerable number of people, then it may be considered significant."* SLO County APCD also lists the types of projects that should be evaluated for potential odor impacts and the associated screening distances.³⁵ Because the Project is not in the list of project types and no special circumstances warrant further evaluation, the Project does not qualify for an odor impact analysis.

4.9 Impact Evaluation

4.9.1 Impact AQ-1

The Proposed Project would not conflict with implementation of the 2001 Clean Air Plan for San Luis Obispo County. (Less than Significant)

The most recently adopted air quality plan for SLO County is the 2001 Clean Air Plan.³⁶ The 2001 Clean Air Plan is a road map that demonstrates how SLO County will, in accordance with the requirements of the California Clean Air Act, implement all feasible measures to reduce ozone precursors (ROG and NO_x) and reduce transport of ozone and its precursors to neighboring air basins. It also provides a climate and air pollution control strategy to reduce ozone, PM, toxic air contaminants, and GHGs that builds upon existing regional, state, and national programs. In determining consistency with the 2001 Clean Air Plan, this analysis considers whether the Proposed Project would (1) support the primary goals of the 2001 Clean Air Plan, (2) include applicable control measures from the 2001 Clean Air Plan, and (3) avoid disrupting or hindering implementation of control measures identified in the 2001 Clean Air Plan.

The goals of the 2001 Clean Air Plan are to protect air quality and health at the regional and local scale and protect the climate. Since climate change is addressed in another report, this section addresses only the air quality and health aspects of the 2001 SLO County Clean Air Plan. Air quality protection and the safeguarding of public health from harmful air pollutants is accomplished through meeting state and national ambient air quality standards. To meet these goals, the 2001 SLO County Clean Air Plan recommends specific control measures and actions to reduce emissions and decrease concentrations of harmful air pollutants. To this end, the 2001 Clean Air Plan includes over 30 control measures aimed at reducing air pollutants in the air basin.³⁷ These control measures are grouped into various categories: stationary source sector, transportation sector, and land use planning sector. Primary

³⁵ Ibid

³⁶ SLO County APCD, 2001 San Luis Obispo Clean Air Plan, December 2001, <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/business/pdf/CAP.pdf>, accessed November 2022.

³⁷ SLO County APCD, 2001 Clean Air Plan for SLO County, Tables 8-1 to 8-3.

emission control techniques used by many of the control measures include vapor recovery, solvent content reduction, improved transfer efficiency, improved fuel combustion, fuel-switching or electrification, chemical or catalytic reduction, reduced vehicle use, new source review, and indirect source review. Only those sectors relevant to the Proposed Project are discussed in this section.

The control measures identified in the 2001 Clean Air Plan that are most applicable to the Proposed Project are associated with the stationary source sector and transportation strategies. The Proposed Project would comply with all applicable regulations to reduce energy consumption and reduce fossil fuel combustion.

Stationary source sector control measures that are identified in the 2001 Clean Air Plan and would be incorporated into the Proposed Project include Fueling-Switching/Electrification, Energy Conservation (N-5), and Internal Combustion Engines (N-14). Related to measure N-5, as explained by the 2001 Clean Air Plan:

“There are currently no APCD regulations specifying energy efficiency or energy conservation requirements...Potential energy conservations measures may include retrofit weather proofing and insulation of existing homes, incorporation of passive solar features in new construction, improving heating, ventilation, and air conditioning system efficiency in government buildings; replacing natural gas water heaters with solar water heaters; and adding flue gas dampers to existing residential water heaters.”³⁸

Given that the Project is not a residential or government project, the only applicable recommendations include passive solar features in construction and elimination of natural gas water heaters. Given the extremely limited occupancy during Project operation, the need for passive solar features such as improved lighting or heating is negligible. Additionally, the Project does not plan to include natural gas water heaters.

Control measure N-14 refers to the applicable APCD Rule 431 Stationary Internal Combustion Engines, wherein emissions of NO_x from spark-ignited engines are limited to 50 ppm and 125 ppm for rich- and lean-burn engines, respectively, and emissions of CO are limited to 4,500 ppm for both engine types.

An alternative to these limits for rich- and lean-burn engines is a demonstrated reduction of NO_x by volume of 90% and 80%, respectively. Under Rule 431, diesel engines must not emit more than 600 ppm_v (parts per million by volume) of NO_x, or else achieve a 30% reduction of NO_x emissions by volume. In addition, diesel engines must not emit more than 4,500 ppm_v of CO and 20 ppm_v of ammonia.

For the reasons described above, the Proposed Project would not interfere with implementation of the 2001 Clean Air Plan, and because the Proposed Project would be consistent with the applicable air quality plan that demonstrates how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be less than significant, and no mitigation measures are necessary.

³⁸ SLO County APCD, 2001 San Luis Obispo Clean Air Plan, December 2001. Available at: <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/business/pdf/CAP.pdf>, Accessed February 2023.

4.9.2 Impact AQ-2

During construction, the Proposed Project would not result in a cumulatively considerable net increase of any CAP for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. (Less than Significant with Mitigation)

During the Proposed Project's construction period, construction activities would result in emissions of ozone precursors and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions), as discussed below in more detail. Emissions of ozone precursors and PM (exhaust) are primarily a result of the combustion of fuel from on-road and off-road vehicles. However, ROG's are also emitted from activities that involve paint, other types of architectural coatings, or asphalt paving.

As previously noted, the Proposed Project development is expected to occur following the schedule presented in **Appendix A, Table 1** and would include fencing and site preparation, foundation and pile installation, BESS, substation, and Gen-tie installation, and demolition of existing power plant stacks. Construction activities would require the use of heavy trucks, graders, material loaders, dozers, forklifts, cranes, and other mobile and stationary construction equipment. Off-road equipment activity was provided by the Project Sponsor.

4.9.2.1 Fugitive Dust

Project-related excavation, grading, and other construction activities may cause wind-blown dust that could contribute PM to the local atmosphere. Despite the established federal standards for air pollutants and ongoing implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Depending on exposure, adverse health effects can occur due to PM in general as well as specific contaminants, such as lead or asbestos that may be constituents of dust.

Dust that is generated during construction activities primarily constitutes PM₁₀, with smaller amounts of PM_{2.5}. Even though most of the dust will settle down in or near the Proposed Project area, sensitive receptors near the Proposed Project site could still be exposed to small particulates that remain in the atmosphere. Sensitive individuals including those that may be living nearby could be exposed to fugitive dust from construction sources. Although construction emissions from the Proposed Project are temporary in duration, the Project includes grading areas that are within 1,000 feet of sensitive receptors and will therefore comply with mitigation measures set forth by SLO County APCD (Section 2.4 Fugitive Dust Mitigation Measures: Expanded List)³⁹, and repeated below.

The following measures are required by SLO County for all projects with grading areas that are greater than 4-acres or are within 1,000 feet of any sensitive receptor. These control measures were incorporated into CalEEMod as project design features in the unmitigated scenario to ensure that potential dust-related emissions would be lower than limits presented in Table 3 of Section 4.4, and that construction air quality impacts of the Proposed Project would be less than significant.

³⁹ SLO County APCD, CEQA Guidelines Section 2.4 Fugitive Dust Mitigation Measures: Expanded List, 2012, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf, accessed November 2022.

4.9.2.2 Construction Fugitive Dust Control Measures

Fugitive dust control measures to be implemented by the Project Sponsor during construction activities:

- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed.
- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets or wash off trucks and equipment leaving the site.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- All of these fugitive dust mitigation measures shall be shown on grading and building plans.
- The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork, or demolition.

4.9.2.3 Naturally Occurring Asbestos

Because demolition activities would occur in an area that could contain asbestos, the construction contractor must comply with the NOA ATCM before any grading activities can commence. The following requirements apply:

- For grading projects qualifying for NOA ATCM exemption:
 - Submit NOA Exemption form with geologic evaluation.
- For grading projects in serpentine rock less than 1 acre:
 - Submit Project Form with geologic evaluation.
 - Mini Dust Control Measures in Section 93105(e)(A-F)
- For grading projects in serpentine rock greater than 1 acre:
 - Submit Project Form with geologic evaluation
 - Asbestos Dust Mitigation Plan

The Project would be consistent with these requirements, and therefore asbestos impacts would be less than significant.

4.9.2.4 Criteria Air Pollutants from Construction

Construction-related emissions of CAPs were calculated using methods consistent with the California Emissions Estimator Model (CalEEMod) emissions calculator model (version 2022.1) developed for the California Air Pollution Control Officers Association.⁴⁰ Where available, the analysis used project-specific information for each phase of the construction program provided by the project sponsor, otherwise, defaults were used. The construction schedule is shown in **Appendix A, Table 1**.

All diesel-fueled off-road construction equipment was assumed to have equipment-wide average emission factors, consistent with CalEEMod default assumptions. Off-road construction equipment assumptions are presented in **Appendix A, Table 2**.

No on-road haul truck traffic is expected during construction, as the site will be balanced during the Site Preparation and Grading phases. Material/vendor trips are assumed to occur during the Grading, Building Construction, Paving, and Demolition subphases, based on information provided by the project sponsor. Material/vendor trip rates for each of these phases are 30, 40, 10, and 5 one-way trips per day, respectively. Worker trips are also assumed to occur throughout the construction of the Project, with an average of approximately 355 one-way trips per day. When combining haul trips, material/vendor trips, and worker trips, the average daily construction trips is approximately 127 one-way trips per day. CalEEMod default trip lengths are assumed. On-road construction trip generation inputs are presented in **Appendix A, Table 3**.

The emission factors used by CalEEMod for on-road vehicles are based on the CARB Emission FACTor model (EMFAC2021) program.

⁴⁰ SLO County APCD encourages the use of CalEEMod version 2022.1, noting that emissions estimates will likely be more accurate using this version as opposed to 2020.4.0: <https://www.slocleanair.org/rules-regulations/land-use-ceqa.php>

Emissions from architectural coating off-gassing were estimated using CalEEMod. Architectural coating emissions were based on the building square footage, as indicated by the Project Sponsor, as well as CalEEMod defaults regarding the size of coated areas.

Tables 1 through 3 in Appendix A provide detailed input values for construction emission calculations. Emissions from Proposed Project construction are shown in shown in the CalEEMod output files in **Appendix C**.

4.9.2.5 Proposed Project Unmitigated Emissions

Table 4 presents unmitigated construction-related emissions that would result from the Proposed Project, calculated in terms of annual emissions for each year of the construction period. The maximum year's quarterly emission rate during construction of the Proposed Project is compared to significance thresholds to establish a significance determination.

Construction emissions include emissions from both off-road construction equipment and on-road construction vehicles, including haul trucks and vendor/worker trips. As discussed in Section 4.1, ROG and NO_x are compared against thresholds jointly. As shown in **Table 4**, construction activities would result in emissions of ROG, NO_x, and DPM that would exceed the Tier 1 quarterly thresholds.

Therefore, criteria pollutant emissions generated from the Proposed Project during construction would have a significant air quality impact with no mitigation.

TABLE 4: EMISSIONS FROM THE PROPOSED PROJECT DURING CONSTRUCTION USING UNMITIGATED FLEET AVERAGE FOR ALL OFF-ROAD CONSTRUCTION EQUIPMENT

Year	Maximum Quarterly Emissions (tons/quarter) ^A		
	ROG + NO _x	DPM ^B	Fugitive PM ₁₀ ^C
2023	1.75	0.066	0.14
2024	11.13	0.43	0.32
2025	14.74	0.564	0.01
2026	8.68	0.285	0.06
2027	2.19	0.086	0.26
2028	0.92	0.036	0.11
Tier 1 Significance Threshold	2.5	0.13	3
Above Threshold?	<u>Yes</u>	<u>Yes</u>	<u>No</u>
Tier 2 Significance Threshold	6.3	0.32	2.5
Above Threshold?	<u>Yes</u>	<u>Yes</u>	<u>No</u>

Notes:

- ^A Construction emissions for each Project were estimated using CalEEMod and activity assumptions from the Project Sponsor.
- ^B PM emissions shown include exhaust emissions only.
- ^C PM emissions shown include fugitive dust emissions only.

Source: Ramboll, 2022, Appendix C.

4.9.2.6 Proposed Project Mitigated Emissions

Since the Tier 1 thresholds for ROG+NO_x and DPM would be exceeded, SLO County APCD CEQA guidance calls for implementation of standard mitigation measures (see Section 4.4) and BACT for construction equipment, and comparison of these mitigated emissions to the Tier 2 threshold. Table 5 shows estimates of mitigated emissions from project construction with a BACT measure applied, specifically, the use of CARB Tier 4 Interim offroad diesel engines. Implementation of this measure would reduce emissions below the Tier 2 quarterly threshold of significance.

TABLE 5: MITIGATED EMISSIONS FROM THE PROPOSED PROJECT DURING CONSTRUCTION USING TIER 4 INTERIM ENGINE TIERS FOR ALL OFF-ROAD CONSTRUCTION EQUIPMENT

Year	Maximum Quarterly Emissions (tons/quarter) ^A		
	ROG + NO _x	DPM ^B	Fugitive PM ₁₀ ^C
2023	0.8	0.009	0.14
2024	3.45	0.02	0.32
2025	1.6	0.011	0.01
2026	2.0	0.015	0.06
2027	1.6	0.016	0.26
2028	0.7	0.006	0.11
Tier 2 Significance Threshold	6.3	0.32	2.5
Above Threshold?	<u>No</u>	<u>No</u>	<u>No</u>

Notes:

- ^A Construction emissions were estimated using CalEEMod and activity assumptions from the Project Sponsor.
- ^B PM emissions shown include exhaust emissions only.
- ^C PM emissions shown include fugitive dust emissions only.

Source: Ramboll, 2022, Appendix C.

Specifically, **Table 5** indicates that the maximum average quarterly emissions from Project construction would be 3.45 tons/quarter for ROG and NO_x combined, 0.02 tons/quarter for DPM, and 0.32 tons/quarter for Fugitive PM₁₀ each of which is below the respective

thresholds of 6.3 tons/quarter for ROG and NO_x combined, 0.32 tons/quarter of DPM, and 3 tons/quarter for Fugitive PM₁₀.

Therefore, criteria pollutant emissions generated from the Proposed Project during construction would be a less than significant air quality impact with mitigation.

The Project will implement the following measures because quarterly ROG + NO_x and DPM emissions exceed the quarterly Tier 1 threshold.

4.9.2.7 Construction Standard Mitigation Measures

- Maintain all construction equipment in proper tune according to manufacturer's specifications.
- Fuel all off-road and portable diesel-powered equipment with CARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- Use diesel construction equipment meeting CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines and comply with the State Off-Road Regulation.
- Use on-road heavy-duty trucks that meet CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation.
- Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g., captive or NO_x exempt area fleets) may be eligible by proving alternative compliance.
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit.
- Diesel idling within 1,000 feet of sensitive receptors is not permitted.
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors.
- Electrify equipment when feasible
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible.
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

4.9.3 Impact AQ-3

At Project build-out, the operation of the Proposed Project would not result in a cumulatively considerable net increase of any CAP for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. (Less than Significant)

The Proposed Project would generate operational emissions from a variety of sources, including area sources (consumer products, architectural coatings), stationary sources, and mobile sources (daily trips). Because there would be no natural gas infrastructure, there would be no local emissions from building energy usage. **Table 4** in **Appendix A** contains a summary of the different land uses analyzed at full project buildout.

Emissions from all sources were calculated using CalEEMod 2022.1, which estimates emissions based on the type and size of land uses associated with the Proposed Project. Where not specified otherwise, CalEEMod default assumptions were used to estimate emissions. Edits to CalEEMod default assumptions include:

- Mobile trip generation was updated from CalEEMod default assumptions based on trip generation data provided by the Project Sponsor. This information is shown in **Appendix A, Table 3**.
- Because the CalEEMod analysis was conducted with a user-defined land use, energy use takes a default value of zero. Electricity consumption was updated using electricity intensity of a General Light Industry land use in electricity demand forecast zone (EDFZ) 6, from CalEEMod Appendix G. As explained above, no natural gas usage is expected at full build-out.
- A diesel-fueled emergency fire pump was added to the stationary source list based on information provided by the Project Sponsor.

The CalEEMod output file is included as **Appendix C**.

4.9.3.1 Proposed Project

The Proposed Project proposes one new operational stationary source of air pollution: a 350-horsepower emergency fire pump. The ATCM for Stationary Compression Engines contains emission standards and operating limits for various diesel engines. Section 93115.6(a)(4) sets emission standards and hours of operating requirements for new direct-drive emergency standby fire pump engines. Operating hours are limited to those necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 – “Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,” 2002 edition. As such, based on the DPM emission factor requirements for a 350-hp engine, the maximum operating hours for routine maintenance are limited to 30 hours per year; there is no limit for emergency use and for emission testing to show compliance with the ATCM. However, the annual hours can be increased to 50 hours per year if approved by the SLO County APCD.

The daily and annual increase in emissions associated with the Proposed Project are shown in **Table 6** for ROG (precursor of ozone) and NO_x (precursor of ozone), PM₁₀, and PM_{2.5} with results showing the contribution by source. As shown in **Table 6**, these emissions are well below the respective SLO County APCD CEQA significance thresholds of 25 lb/day for ROG and NO_x combined, 1.25 lb/day for DPM, 25 lb/day for fugitive PM₁₀, and 550 lb/day of carbon monoxide (CO), and below the annual thresholds of 25 tpy for ROG and NO_x combined, and 25 tpy of fugitive PM₁₀.

TABLE 6: EMISSIONS FROM THE PROPOSED PROJECT DURING FULL BUILDOUT OPERATION

Emissions Source	Average Daily Emissions (lb/day) ^{A,B}			
	ROG + NO _x	DPM	Fugitive PM ₁₀	CO
Area Sources	7.57	0	0	0
Building Energy Sources	0	0	0	0
Mobile Sources	0.11	0.005	0.005	0.35
Stationary Sources	0.18	0.01	0	0.12
Total Daily Emissions (lb/day)	7.86	0.01	0	0.47
Daily Significance Threshold (lb/day)	25	1.25	25	550
Above Daily Threshold?	No	No	No	No
Emissions Source	Average Annual Emissions (tpy)			
	ROG + NO _x	DPM	Fugitive PM ₁₀	CO
Area Sources	1.73	N/A	0	N/A
Building Energy Sources	0		0	
Mobile Sources	0.02		0.005	
Stationary Sources	0.03		0	
Total Annual Emissions (tpy)	1.78		0.005	
Annual Significance Threshold (tpy)	25		25	
Above Annual Threshold?	No		No	

Notes:

^A Emissions estimated using CalEEMod version 2022.1

^B Operational Criteria Air Pollutant (CAP) emissions were estimated for the Proposed Project assuming full project buildout in 2028.

Source: Ramboll, 2022, Appendix C.

Because the Proposed Project’s operational emissions at full project buildout would be below the operational significance criteria, the Proposed Project would have a less-than-significant air quality impacts.

4.9.4 Impact AQ-4

Construction and operation of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

Construction activities including site preparation, grading, building construction, paving, architectural coating, and demolition would affect localized air quality during the construction phases of the Proposed Project. Short-term emissions from construction equipment during these site preparation activities would include directly emitted PM (PM_{2.5} and PM₁₀) and TACs such as DPM. Additionally, the long-term emissions from operation of the Proposed Project such as the emergency fire pump, as described under Impact AQ-1 and Impact AQ-2, would

include PM (PM_{2.5}) and TACs such as DPM. The generation of these short and long-term emissions could potentially expose sensitive receptors to substantial pollutant concentrations of TACs, resulting in a localized health risk. Therefore, an HRA was conducted for the Proposed Project to evaluate the potential health risks to nearby residents resulting from project implementation.

4.9.4.1 Methodology

In general, an HRA is used to determine if chemicals pose a significant risk to human health and, if so, under what circumstances. For the Proposed Project, an HRA was conducted to identify maximum off-site health risks due to inhalation of DPM. The HRA results were based on the latest (2015) guidance by the OEHHA, as well as the latest (2012) CEQA guidance by SLO County APCD.^{41,42} Detailed inputs and methods used for this analysis are provided in **Appendix A, Tables 6 to 11.**

Ramboll characterized cancer risk associated with construction risks by estimating ambient air concentrations of DPM within 1,000 feet of the Project. This boundary represents the “zone of influence” recommended for the cumulative evaluation of a project in the SLO County APCD CEQA Guidelines. Acute non-cancer health effects were not estimated, as the only TAC evaluated is DPM, which does not have acute health impacts. This is standard practice and consistent with the current OEHHA guidance. While individual speciated components of DPM might have acute health impacts, the cancer impacts associated with DPM will almost always exceed the total acute health impact across the speciated components barring unusual circumstances (e.g., a sensitive receptor located directly above the emissions release point for a point source); according to OEHHA Guidance, if DPM is the only pollutant of concern, the air district should be consulted prior to performing an acute non-cancer health analysis to determine appropriate procedures and confirm the assessment is warranted.⁴³ Quantitative non-cancer chronic HI and PM_{2.5} concentrations were also not calculated because SLO County APCD does not currently have risk thresholds for these parameters.

Construction-Related TAC Emissions

As noted in **Section 4.9.2.6**, Table 5, CalEEMod was used to estimate TAC emissions from off-road construction equipment with Tier 4 engines and on-road sources. As discussed below, diesel particulate matter (DPM) emissions were used as a surrogate for all TACs because it provides a protective approach to estimating health risks. The TAC emissions associated with the Project construction were estimated from the CalEEMod outputs, with the following conservative assumptions:

1. **Diesel Particulate Matter (DPM):** DPM emissions were used to evaluate the cancer risk from Project construction. In this analysis, both onsite (i.e., construction equipment) and local offsite (i.e., construction mobile sources) PM₁₀ exhaust emissions were calculated

⁴¹ OEHHA Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf, accessed November 2022.

⁴² SLO County APCD, SLO County APCD CEQA Air Quality Handbook, April 2012, https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf, accessed November 2022.

⁴³ Ibid.

as DPM.⁴⁴ Diesel exhaust, a complex mixture that includes hundreds of individual constituents, is identified by the State of California as a known carcinogen.^{45,46} Under California regulatory guidelines, DPM is used as a surrogate measure of exposure for the mixture of chemicals that make up diesel exhaust as a whole. The California Environmental Protection Agency (CalEPA) and other proponents of using the surrogate approach to quantifying excess lifetime cancer risks associated with the diesel mixture indicate that this method is preferable to use of a component-based approach because it provides a protective approach to estimating health risks. A component-based approach involves estimating risks for each of the individual components of a mixture. Critics of the component-based approach believe it will underestimate the risks associated with diesel as a whole mixture because the identity of all chemicals in the mixture may not be known and/or exposure and health effects information for all chemicals identified within the mixture may not be available. Furthermore, CalEPA has concluded that “potential cancer risk from inhalation exposure to whole diesel exhaust will exceed the multi-pathway cancer risk from the speciated components”.⁴⁷ This analysis was based on the surrogate approach, as recommended by CalEPA. This analysis also conservatively assumed the small fraction of non-diesel PM₁₀ (i.e., PM₁₀ emissions from gasoline fueled or natural gas fueled vehicles in the CalEEMod default vendor fleet) was DPM, which has greater human health impacts than the speciated components of other fuels.⁴⁸ Worker trips are not evaluated, consistent with BAAQMD CEQA Guidelines, which state that 10,000 passenger vehicles per day or fewer is considered a minor, low-impact source that does not pose a significant health impact even in combination with other sources nearby. This screening criteria was developed prior to updated exposure parameters from OEHHA (2015).⁴⁹ To account for the updated exposure parameters, Ramboll conservatively assumes that traffic of less than 5,000 passenger vehicles per day is a minor source of TACs. Since the Project construction would have a maximum of 600 worker trips per day, these trips are considered minor and are not evaluated.

The modelled emissions and the sources they were attributed to are presented in **Appendix A, Table 6**.

⁴⁴ On-road construction worker trips are primarily gasoline-fueled which contribute negligible TAC emissions and are therefore not included in the HRA analysis.

⁴⁵ CalEPA, OEHHA, 1998, Findings of the Scientific Review Panel on The Report on Diesel Exhaust, as adopted at the Panel’s April 22, 1998, meeting.

⁴⁶ CalEPA, OEHHA, OEHHA/ARB Consolidated Table of Approved Risk Assessment Health Values, May 2018, <https://www.arb.ca.gov/toxics/healthval/contable.pdf>, accessed November 2022.

⁴⁷ CalEPA, OEHHA, Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. Appendix D: Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines. February 2015, <https://oehha.ca.gov/media/downloads/crn/2015gmappendices.pdf>, accessed November 2022.

⁴⁸ A comprehensive analysis of human health impacts associated with diesel and gasoline exhaust by the International Agency for Research on Cancer (IARC) found that while there is sufficient evidence for the carcinogenicity of diesel engine exhaust, there is inadequate evidence in humans for the carcinogenicity of gasoline engine exhaust. For more information, see: IARC. 2014, Diesel and Gasoline Engine Exhausts and Some Nitroarenes, Volume 105, https://www.ncbi.nlm.nih.gov/books/NBK294269/pdf/Bookshelf_NBK294269.pdf

⁴⁹ Ibid.

Estimated Air Concentrations

To estimate air concentrations of DPM, Ramboll used the American Meteorological Society/Environmental Protection Agency Regulatory Air Dispersion Model (AERMOD) (version 22112), a steady-state Gaussian plume model developed by USEPA for regulatory applications.⁵⁰ AERMOD requires emission source locations and release parameters, receptor locations, and processed meteorological data. The construction and operational source parameters are shown in **Appendix A, Table 7**. Ramboll used five years of meteorological data from the San Luis County Regional Airport meteorological station (KSBP), which was the best available dataset to represent the Project site conditions, based on terrain and wind data. The KSBP site was chosen because it is close to the Project site with the most comprehensive available meteorological data. Additionally, it exhibits similar terrain to the Project site, without major disturbances between them (e.g., mountain ranges or influences from large bodies of water). Meteorological data were processed by SLO County APCD using AERMOD's Meteorological Preprocessor (AERMET) (version 18018).

In order to evaluate health impacts to nearby off-site receptors, Ramboll modelled receptors at every structure within the vicinity of the Project. Off-site receptors were modelled at a height of 1.5 meters above terrain height. **Figure 1** shows the modeling extent and nearby off-site sensitive receptor locations evaluated in the HRA.

Exposure Assessment

This analysis evaluates nearby off-site sensitive receptors based on the updated Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015), which combines information from previously released and adopted technical support documents to delineate OEHHA's revised risk assessment methodologies based on current science. SLO County APCD has issued HRA Guidelines formally adopting the OEHHA 2015 Guidance Manual. This analysis followed the recommended methodology from the 2015 OEHHA Hot Spots Guidance. Ramboll conservatively evaluated Project impacts due to construction emissions using default exposure assumptions for a resident child from OEHHA (2015) unless otherwise noted. The resident child scenario assumes a much higher daily breathing rate and age-sensitivity factor (ASF)⁵¹ than other sensitive receptor populations and therefore is the most conservative scenario to evaluate for this analysis. The exposure parameters used to estimate excess lifetime cancer risks for a resident child are presented in **Appendix A, Table 8**.

The dose estimated for each exposure pathway is a function of the concentration of a chemical and the intake of that chemical. The intake factor for inhalation, IF_{inh} , can be calculated as follows:

$$IF_{inh} = \frac{DBR * FAH * EF * ED * CF}{AT}$$

Where:

IF_{inh} = Intake Factor for Inhalation ($m^3/kg\text{-day}$)

⁵⁰ USEPA, User's Guide for the AMS/EPA Regulatory Model - AERMOD, August 2019, https://www3.epa.gov/ttn/scram/models/aermod/aermod_userguide.pdf, accessed November 2022.

⁵¹ Ibid.

- DBR = Daily Breathing Rate (L/kg-day)
- FAH = Fraction of Time at Home (unitless)
- EF = Exposure Frequency (days/year)
- ED = Exposure Duration (years)
- AT = Averaging Time (days)
- CF = Conversion Factor, 0.001 (m³/L)

The chemical intake or dose is estimated by multiplying the inhalation intake factor, IF_{inh} , by the chemical concentration in air, C_i . When coupled with the chemical concentration, this calculation is mathematically equivalent to the dose algorithm given in the OEHHA Hot Spots guidance (CalEPA 2003).

Toxicity Assessment

The toxicity assessment characterizes the relationship between the magnitude of exposure and the nature and magnitude of adverse health effects that may result from such exposure. This HRA evaluated theoretical exposures to TACs for one category of potential adverse health effects, cancer endpoints. Toxicity values used to estimate the likelihood of adverse effects occurring in humans at different exposure levels are identified as part of the toxicity assessment component of a risk assessment.

Excess lifetime cancer risk calculations for Project construction utilized the toxicity values for DPM. Toxicity values for DPM (CalEPA 2016) are as presented in **Appendix A, Table 10**.

Risk Characterization

Excess lifetime cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF).

The equation used to calculate the potential excess lifetime cancer risk for the inhalation pathway is as follows:

$$Risk_{inh} = C_i \times CF \times IF_{inh} \times CPF_i \times ASF$$

Where:

- Risk_{inh} = Cancer risk; the incremental probability of an individual developing cancer as a result of inhalation exposure to a particular potential carcinogen (unitless)
- C_i = Annual average air concentration for chemical_i (µg/m³)
- CF = Conversion factor (mg/µg)
- IF_{inh} = Intake factor for inhalation (m³/kg-day)

CPF_i = Cancer potency factor for chemical_i
(mg chemical/kg body weight-day)⁻¹

ASF = Age sensitivity factor (unitless)

Cancer risk was calculated from ambient annual concentrations using intake factors, cancer potency factors, and chronic reference exposure levels calculated consistent with the 2015 OEHHA Hot Spots Guidance. The analysis evaluated excess cancer risk as a result of exposure to construction and screening-level operational emissions together. The health risk results for the Proposed Project are presented below.

Health Impacts from Proposed Project Operational Sources

BAAQMD CEQA Guidance defines a project traffic source as significant if the project increases traffic on nearby freeways or roadways by at least 10,000 vehicles per day.⁵² This guidance was released prior to the updated OEHHA Guidance, so this threshold may be lower due to the updated exposure assumptions. Because the Proposed Project is anticipated to generate approximately 15 operational trips per day, which is substantially lower than 10,000 trips per day, the quantitative HRA does not include operational mobile emission sources as these impacts are anticipated to be less than significant when added to construction sources. The use of an emergency fire pump is the only operational source included in the HRA. The fire pump is expected to operate 30 hours a year for emergency testing, which is consistent with ARB's Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines regulation⁵³.

4.9.4.2 Health Impacts from Proposed Project Construction and Operation at Off-Site Residents

The maximum estimated excess lifetime cancer risk from Proposed Project sources (assuming a residential receptor was born at the start of construction) at off-site residential locations is presented for the Proposed Project in **Table 7**. The location of the maximally exposed individual receptor is shown in **Figure 2**. As shown in **Table 7**, exposure to Proposed Project air emissions results in health impacts of a total excess cancer risk at the maximally exposed individual sensitive residential receptor of 2.47 in a million, which is below 10 in a million, the SLO County APCD threshold of significance for Type A projects. Therefore, the Proposed Project would result in a less-than-significant impact.

⁵² BAAQMD, CEQA Air Quality Guidelines Update, 2017, http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed November 2022.

⁵³ ARB. Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines, 2011, <https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/finalreg2011.pdf>, accessed November 2022

TABLE 7: LIFETIME HEALTH IMPACTS FROM THE PROPOSED PROJECT AT MAXIMALLY EXPOSED OFF-SITE RESIDENT

Source	Lifetime Excess Cancer Risk (in a million) ^A
Proposed Project Contribution	2.47
SLO County APCD Threshold	10
Significant?	No

Notes:

^A Lifetime excess cancer risks from construction are assumed to begin during the first year of construction. The cancer risks were estimated using the equations specified in **Section 4.9.3.1**

Source: Ramboll, 2022; Table 11 in Appendix A.

4.9.5 Impact AQ-5

Construction and operation of the Proposed Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (Less than Significant)

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source, the wind speeds and direction, and the sensitivity of the receiving location each contribute to the intensity of the impact. While offensive odors rarely cause any physical harm, they can be unpleasant and cause distress among the public and generate citizen complaints. SLO County APCD describes odor sources of concern in its CEQA guidelines and provides project screening distances for various types of operations including wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, coffee roasting facilities, etc. Facilities that are regulated by California Department of Resources Recycling and Recovery (CalRecycle) (e.g., landfills, composting facilities) are required to have Odor Impact Minimization Plans in place to mitigate potential odor impacts. None of these source types are proposed as part of the Proposed Project, and thus the Project does not anticipate any odor impacts.

During construction and operation, diesel exhaust from construction equipment and the emergency fire pump would generate some odors. Construction-related odors would be temporary and would not persist upon construction completion. The only source of operation-related odors would be from an emergency fire pump that would operate no more than 30 hours annually. Therefore, odor impacts from operation and construction would be less than significant.

The Proposed Project would have a less than significant impact with respect to generating odor.

4.10 Cumulative Impacts

This section provides a qualitative assessment of the cumulative impacts to air quality that could result from the Proposed Project in conjunction with past, present, and reasonably foreseeable future projects. SLO County APCD declares that a cumulative air quality impact analysis should encompass all planned construction activities within one mile of the project.

4.10.1 Impact C-AQ-1

The Proposed Project, in combination with past, present, and reasonably foreseeable future development in the project area, would not contribute to cumulative regional air quality impacts. (Less than Significant)

The contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions.⁵⁴ As described above, the project-level thresholds for CAPs are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in CAPs. Therefore, because the Proposed Project's emissions do not exceed the project-level thresholds, the Proposed Project would not result in a considerable contribution to cumulative regional air quality impacts. Therefore, this impact would be less than significant.

4.10.2 Impact C-AQ-2

The Proposed Project, in combination with past, present, and reasonably foreseeable future development in the project area, would not contribute to cumulative health risk impacts on sensitive receptors. (Less than Significant)

A mix of commercial, including hotels and mixed-use commercial developments, and residential development is planned within 1-mile of the Proposed Project. These sources are not expected to have significant sources of TACs, except possibly emergency generators. Additionally, these projects could induce additional traffic near the Proposed Project. However, the health risks from these projects are expected to be minimal and the Proposed Project would not contribute to or cause a health risk impact on sensitive receptors.

⁵⁴ BAAQMD, CEQA Air Quality Guidelines, May 2017, p. 2-1.

APPENDIX A
SUPPLEMENTARY CALCULATION TABLES

Table 1
Land Use Summary
Vistra BESS
Morro Bay, California

Land Use¹	CalEEMod Land Use	Size	Units
Industrial	User Defined Industrial	273	1000sqft

Notes:

¹. Land uses analyzed based on information provided by the Project Sponsor. The site location is shown in Figure 1.

**Table 2
Construction Schedule
Vistra BESS
Morro Bay, California**

Construction Subphase¹	CalEEMod Subphase	Start Date	End Date	Year	Number of Work Days	Days per Week
Fencing and Site Preparation	Site Preparation	9/30/2023	10/31/2023	2023	22	5
Foundation and Pile Installation	Grading	11/1/2023	7/30/2024	2024	195	5
BESS, substation, and Gen-tie installation	Building Construction	7/31/2024	7/31/2026	2026	523	5
	Paving	8/1/2026	8/28/2026	2026	20	5
	Architectural Coating	8/29/2026	9/30/2026	2026	23	5
Demolition of Existing Power Plant Stacks	Demolition	10/30/2026	5/31/2028	2028	414	5

Notes:

¹. All construction phasing information was provided by the Project Sponsor. Construction is generally expected to occur between 7am-7pm Monday-Friday per San Luis Obispo County's construction ordinance.

**Table 3
Construction Equipment and Usage
Vistra BESS
Morro Bay, CA**

Anticipated Construction Start Date:	9/30/2023
---	------------------

Construction Subphase(s)	Equipment Name¹	CalEEMod Equipment Name²	Fuel³	Number¹	Horsepower¹	Daily Usage (hours/day)¹	Utilization⁴	Controlled Engine Tier⁵
Site Preparation	Scrapers	Scrapers	Diesel	2	500	8	100%	Tier 4 Interim
	Bulldozers	Rubber Tired Dozers	Diesel	6	300	8	100%	Tier 4 Interim
	Graders	Graders	Diesel	6	250	8	100%	Tier 4 Interim
	Front End Loaders	Rubber Tired Loaders	Diesel	2	300	8	100%	Tier 4 Interim
	Water Trucks	Off-Highway Trucks	Diesel	3	350	8	100%	Tier 4 Interim
	Backhoes	Tractors/Loaders/Backhoes	Diesel	5	120	8	100%	Tier 4 Interim
Grading	Pile Drivers	Excavators	Diesel	10	600	8	100%	Tier 4 Interim
	Forklifts	Forklifts	Diesel	4	150	8	100%	Tier 4 Interim
	Front End Loaders	Rubber Tired Loaders	Diesel	2	300	8	100%	Tier 4 Interim
	Graders	Graders	Diesel	6	250	8	100%	Tier 4 Interim
	Water Trucks	Off-Highway Trucks	Diesel	3	350	8	100%	Tier 4 Interim
	Bulldozers	Rubber Tired Dozers	Diesel	6	300	8	100%	Tier 4 Interim
Building Construction	Cranes	Cranes	Diesel	16	750	8	100%	Tier 4 Interim
	Forklifts	Forklifts	Diesel	4	150	8	100%	Tier 4 Interim
	Backhoes	Tractors/Loaders/Backhoes	Diesel	5	120	8	100%	Tier 4 Interim
	Trenchers	Trenchers	Diesel	4	250	8	100%	Tier 4 Interim
	Water Trucks	Off-Highway Trucks	Diesel	3	350	8	100%	Tier 4 Interim
	Front End Loaders	Rubber Tired Loaders	Diesel	2	300	8	100%	Tier 4 Interim
Paving	Pavers	Pavers	Diesel	2	81	8	100%	Tier 4 Interim
	Paving Equipment	Paving Equipment	Diesel	2	89	8	100%	Tier 4 Interim
	Rollers	Rollers	Diesel	2	36	8	100%	Tier 4 Interim
Architectural Coating	Air Compressors	Air Compressors	Diesel	2	37	6	100%	Tier 4 Interim
Demolition	Skid Steer Loaders	Skid Steer Loaders	Diesel	1	85	5	100%	Tier 4 Interim
	Cranes	Cranes	Diesel	1	335	4	100%	Tier 4 Interim
	Skid Steer Loaders	Skid Steer Loaders	Diesel	1	85	5	100%	Tier 4 Interim
	Excavators	Excavators	Diesel	1	700	8	100%	Tier 4 Interim
	Concrete/Industrial Saws	Concrete/Industrial Saws	Electric	1	85	5	100%	Average
	Skid Steer Loaders	Skid Steer Loaders	Diesel	2	85	6	100%	Tier 4 Interim
	Excavators	Excavators	Diesel	1	700	8	100%	Tier 4 Interim
	Excavators	Excavators	Diesel	1	435	8	100%	Tier 4 Interim
	Excavators	Excavators	Diesel	2	360	8	100%	Tier 4 Interim
	Excavators	Excavators	Diesel	1	355	8	100%	Tier 4 Interim
	Excavators	Excavators	Diesel	1	290	4	100%	Tier 4 Interim
	Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes	Diesel	1	225	4	100%	Tier 4 Interim
	Cranes	Cranes	Diesel	1	335	4	100%	Tier 4 Interim

Table 3
Construction Equipment and Usage
Vistra BESS
Morro Bay, CA

Notes:

1. Equipment information was provided by the Project Sponsor.
2. CalEEMod equipment types are assigned using CalEEMod Appendix G.
3. All equipment is conservatively assumed to be diesel-fueled.
4. Equipment horsepower is based on information provided by the Project Sponsor. Where no horsepower was provided, CalEEMod Appendix G defaults were used.
5. Controlled equipment engine tiers are conservatively assumed to be Tier 4 Interim.

References:

The California Emissions Estimator Model (CalEEMod). Available at: <http://www.caleemod.com/>

**Table 4
Construction Trips
Vistra BESS
Morro Bay, California**

Construction Area	Construction Activity	Year	Construction Days	Worker Trip Rates ¹ (one-way trips/day)	Vendor Trip Rates ² (one-way trips/day)	Hauling Trips ³ (one-way trips/day)	Trip Lengths ⁴ (miles/one way trip)		
							Worker	Vendor	Hauling
Project Site	Site Preparation	2023	22	100	0	0	10.8	6.9	20
	Grading	2023	44	200	30	0	10.8	6.9	20
		2024	151	200	30	0	10.8	6.9	20
	Building Construction	2024	110	600	40	0	10.8	6.9	20
		2025	262	600	40	0	10.8	6.9	20
		2026	151	600	40	0	10.8	6.9	20
	Paving	2026	20	600	10	0	10.8	6.9	20
	Architcectural Coating	2026	23	600	0	0	10.8	6.9	20
	Demolition	2026	45	134	5	32	10.8	6.9	101
		2027	261	134	5	32	10.8	6.9	101
2028		108	134	5	32	10.8	6.9	101	

EMFAC Data⁵

Trip Type	EMFAC Settings	Fleet Mix	Fuel Type
Worker	San Luis Obispo County Calendar Years 2023-2028 Annual Season Aggregated Model Year EMFAC2007 Vehicle Categories	25% LDA, 50% LDT1, 25% LDT2	Gasoline
Vendor		100% MHDT	Diesel
Hauling		100% HHDT	Diesel

Notes:

1. Worker trip rates are based on the number of expected staff in each phase provided by the Project Sponsor.
2. Vendor trip rates are based on the number of expected daily deliveries in each phase provided by the Project Sponsor.
3. Hauling trips were estimated based on the demolition tonnage provided by the Project Sponsor assuming no import material. Export quantities are converted from tons to corresponding one-way trips per phase by assuming 20 tons per truck. Default truck capacities are consistent with CalEEMod User Guide.
4. Worker, vendor and haul trip lengths are based on CalEEMod Appendix G defaults for San Luis Obispo County.
5. Emissions were calculated using emission factors from EMFAC2021 Emissions Inventory with the specified settings and fleet and fuel assumptions.

Abbreviations:

EMFAC2021 - California Air Resources Board Emission FACTor model
LDA - light-duty automobiles
LDT - light-duty trucks
MHDT - medium heavy-duty trucks
HHDT - heavy heavy-duty trucks
VMT - vehicle miles traveled

References:

The California Emissions Estimator Model (CalEEMod). Available at: <http://www.caleemod.com/>
California Air Resources Board (ARB) 2021. EMFAC2021. Available at: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools>

**Table 5
CAP and GHG Emissions Comparison to Thresholds
Vistra BESS
Morro Bay, California**

ROG + NO_x, DPM

Pollutant ¹	Unmitigated Emissions (tons/quarter) ²	Tier 1 Threshold (tons/quarter)	Exceeds Threshold?	Mitigated Emissions (tons/quarter) ³	Tier 2 Threshold (tons/quarter)	Exceeds Threshold?
ROG + NO _x (Combined)	14.97	2.5	<u>Yes</u>	3.45	6.3	<u>No</u>
DPM	0.56	0.13	<u>Yes</u>	0.02	0.32	<u>No</u>

Fugitive Particulate Matter (PM₁₀), Dust

Unmitigated Emissions (tons/quarter) ⁴	Threshold (tons/quarter)	Exceeds Threshold?
0.32	3	<u>No</u>

GHGs

Annual Emissions		
Output (MT CO ₂ e/year)	Threshold ⁵	Exceeds Threshold?
1094	1,100	<u>No</u>

Notes:

- Maximum annual emissions of ROG and NO_x were divided by four and summed to obtain a quarterly average for comparison with the applicable SLO County APCD threshold. Because these maximums occurred in different years, the total emissions presented here is a conservative estimate. Maximum annual emissions of Diesel Particulate Matter was also divided by four to obtain a quarterly average for comparison with the applicable SLO County APCD threshold.
- Unmitigated emissions were modeled using off-road construction equipment with an average Tier emissions standards rating.
- Mitigated emissions were modeled using off-road construction equipment with a Tier 4 Interim emissions standards rating.
- Maximum annual emissions of fugitive PM₁₀ were divided by four to obtain a quarterly average for comparison with applicable SLO County APCD threshold.
- Greenhouse gas threshold is based on the Sacramento Metropolitan Air Quality Management District's GHG thresholds, based on conversations with SLO County APCD. In addition to having emissions less than the threshold, the project must implement the following Best Management Practices (BMPs) to be less than significant:

BMP 1 - No natural gas: projects shall be designed and constructed without natural gas infrastructure.

BMP 2 - Electric vehicle (EV) ready: projects shall meet the current CalGreen Tier 2 standards, except all EV capable spaces shall be instead EV ready.

Abbreviations:

CO₂e - Carbon dioxide equivalent
 ROG - Reactive organic gases
 NO_x - Oxides of nitrogen
 GHG - Greenhouse gases

PM₁₀ - Particulate matter <10 microns
 SLO County APCD - San Luis Obispo Air Pollution Control District
 MT - Metric ton

References:

SLO County APCD. CEQA Air Quality Handbook. Available at: https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf

**Table 6
Modeling Parameters
Vistra BESS
Morro Bay, California**

Construction Sources

Source	Source Type	Number of Sources	Source Dimension	Release Height	Initial Vertical Dimension	Initial Lateral Dimension
			[m]	[m]	[m]	[m]
Construction	Area	1	Approximate Equipment Area	5.0	1.4	--
Demolition	Area	1	Approximate Equipment Area	5.0	1.4	--

Operational Sources

Source	Source Type	Number of Sources	Stack Height	Stack Velocity	Exit Diameter	Stack Temperature
			[m]	[m/s]	[m]	°F
Emergency Fire Pump ²	Point	1	1.52	111.65	0.10	1097

Notes:

- ¹. Construction and demolition off-road equipment was modeled as one area source covering the parcel under construction. This information was provided by the Project Sponsor. Consistent with SCAQMD LST methods, the initial vertical dimension of the modeled construction equipment area source will be set to 1.4 meters and the release height will be set to 5 meters. Emissions from truck travel were also applied to these area sources.
- ². The emergency fire pump was modeled by compiling parameters (i.e., stack height and exit diameter) representative of a 350-hp model.

Abbreviations:

AERMOD - Atmospheric Dispersion MODELing
 °F - Fahrenheit
 s - second

LST - Localized Significance Threshold
 m - meter

References:

South Coast Air Quality Management District (SCAQMD). 2008. Final Localized Significance Threshold Methodology. July. Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2>

**Table 7
Exposure Parameters
Vistra BESS
Morro Bay, California**

**Scenarios:
Construction+Demolition+Operation**

Receptor Type	Project Phase	Year	Receptor Age Group	Exposure Parameters						
				Daily Breathing Rate (DBR) ¹	Exposure Duration (ED) ²	Fraction of Time at Home (FAH) ³	Exposure Frequency (EF) ⁴	Age Sensitivity Factor (ASF) ⁵	Averaging Time (AT) ⁶	ASF-Weighted Intake Factor, Inhalation (IF _{inh})
				[L/kg-day]	[years]	[unitless]	[days/year]		[days]	[m ³ /kg-day]
Residential	Construction	2023	3rd Trimester	361	0.25	0.85	350	10	25,500	1.06E-02
		2023	0-<2	1090	0.003	0.85		10		3.48E-04
		2024	0-<2	1090	1.00	0.85		10		1.27E-01
		2025	0-<2	1090	1.00	0.85		10		1.27E-01
		2025	2-<16	745	0.003	0.72		3		6.05E-05
		2026	2-<16	745	0.75	0.72		3		1.65E-02
	Demolition	2026	2-<16	745	0.17	0.72		3		3.81E-03
		2027	2-<16	745	1.00	0.72		3		2.21E-02
		2028	2-<16	745	0.42	0.72		3		9.17E-03
	Operation	All	2-<16	745	12	0.72		3		2.58E-01
		All	16<30	335	14	0.73		1		4.70E-02

Notes:

- ¹ Daily breathing rates reflect 95th percentile default breathing rates from OEHHA (OEHHA 2015) section 5.4.1.
- ² Exposure duration for residential receptors is assumed to begin at the start of construction and continue for 30 years of operation.
- ³ Fraction of time spent at home reflects the default numbers in OEHHA section 8.2.2.
- ⁴ Exposure frequency reflects the default value recommended in OEHHA Equation 5.4.3.1.1.A. for residential receptors.
- ⁵ Age sensitivity factor reflects the default numbers in OEHHA section 8.2.1.
- ⁶ Averaging time reflects the recommended value in OEHHA section 8.2.4.

Calculation:

$$IF_{inh} = DBR * FAH * EF * ED * CF / AT$$

$$CF = 0.001 (m^3/L)$$

Abbreviations:

- | | |
|--------------------------------|--|
| AT - averaging time | IF _{inh} - intake factor |
| DBR - daily breathing rate | kg - kilogram |
| ED - exposure duration | L - liter |
| EF - exposure frequency | m ³ - cubic meter |
| FAH - fraction of time at home | OEHHA - Office of Environmental Health Hazard Assessment |

References:

OEHHA. February 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. Available online at: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>

Table 8
Age Sensitivity Factors
Vistra BESS
Morro Bay, California

Receptor Age Group	Value¹
3rd Trimester	10
Age 0-<2 Years	10
Age 2-<9 Years	3
Age 2-<16 Years	3
Age >16 Years	1

Notes:

¹. Based on OEHHA 2015. Age sensitivity factors are unitless.

Abbreviations:

OEHHA - Office of Environmental Health Hazard Assessment

References:

OEHHA. 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February.

**Table 9
Toxicity Values
Vistra BESS
Morro Bay, California**

Source	Chemical ¹	CAS Number	Cancer Potency Factor
			(mg/kg-day) ⁻¹
PM ₁₀	Diesel PM	9-90-1	1.1

Notes:

¹. Toxicity values are taken from ARB's Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values.

Abbreviations:

ARB - Air Resources Board
 Cal/EPA - California Environmental Protection Agency
 CAS - chemical abstract services
 mg/kg-day - milligrams per kilogram per day
 OEHHA - Office of Environmental Health Hazard Assessment

References:

Cal/EPA. 2016. OEHHA/ARB Consolidated Table of Approved Risk Assessment Health Values. March. Available at:
<http://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Table 10
Modeled Emission Rates from Construction and Operational Sources
Morro Bay BESS Installation
Morro Bay, California

Year	Source Description	Modeled Source Group Name	Uncontrolled DPM Emission Rate (g/s) ¹	Controlled DPM Emission Rate (g/s) ²
2023	Site Preparation	CON	1.73E-03	2.88E-04
2023	Grading		5.90E-03	7.19E-04
2024	Grading		1.71E-02	1.87E-03
2024	Building Construction		3.27E-02	4.31E-04
2025	Building Construction		6.49E-02	1.29E-03
2026	Building Construction		3.06E-02	7.19E-04
2026	Paving		2.88E-04	2.88E-04
2026	Architectural Coating		1.44E-04	1.44E-04
2026	Demolition	DEM	1.73E-03	5.75E-04
2027	Demolition		9.92E-03	1.87E-03
2028	Demolition		4.17E-03	7.19E-04
All	Fire Pump	PUMP	1.44E-04	1.44E-04

Notes:

- ¹. Uncontrolled DPM emissions represent emissions from average-tier offroad construction equipment.
- ². Controlled DPM emissions represent emissions from Tier 4 Interim offroad construction equipment.

Abbreviations:

CalEEMod - California Emissions Estimator Model
DPM - diesel particulate matter
g - gram
s - second

References:

The California Emissions Estimator Model (CalEEMod). Available at: <http://www.caleemod.com/>

Table 11
Project Health Impacts
Morro Bay BESS Installation
Morro Bay, California

Receptor Type	Offsite Resident	
	Unmitigated Lifetime Excess Cancer Risk (in a million) ^{1,2}	Mitigated Lifetime Excess Cancer Risk (in a million) ^{1,3}
RID	R1646	R1646
Construction	77.3	0.6
Demolition	0.3	0.02
Operation	0.08	0.04
Total Project Contribution	77.6	2.62
SLO County APCD Threshold⁴	10	10
Exceeds Threshold?	Yes	No
Location		
UTMx (m)	694,359	694,359
UTMy (m)	3,916,913	3,916,913

Notes:

1. Excess lifetime cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a unitless probability. The cancer risk attributed to the emissions associated with the Project was calculated based on the modeled annual average DPM concentration, the intake factor for a resident child, the Cancer Potency Factors (CPF) for Diesel Particulate Matter (DPM), and the Age Sensitivity Factors (ASF).
2. Unmitigated lifetime excess cancer risk represent impacts from construction activities using average-tier offroad construction equipment.
3. Mitigated lifetime excess cancer risk represents health impacts from construction activities using Tier 4 Interim offroad construction equipment.
4. Air districts across California are uniform in their recommendation to use the significance thresholds that have been established under each district's "Hot Spots" and permitting programs. SLO County APCD has defined the excess cancer risk significance threshold at 10 in a million for Type A projects in SLO County. Type A projects are defined as: new proposed land use projects that generate toxic air contaminants (such as gasoline stations, distribution facilities or asphalt batch plants) that impact sensitive receptors.

Abbreviations:

CARB - California Air Resources Board

g - gram

kg - kilogram

m - meter

MEIR - maximally exposed individual receptor

mg - milligram

SLO County APCD - San Luis

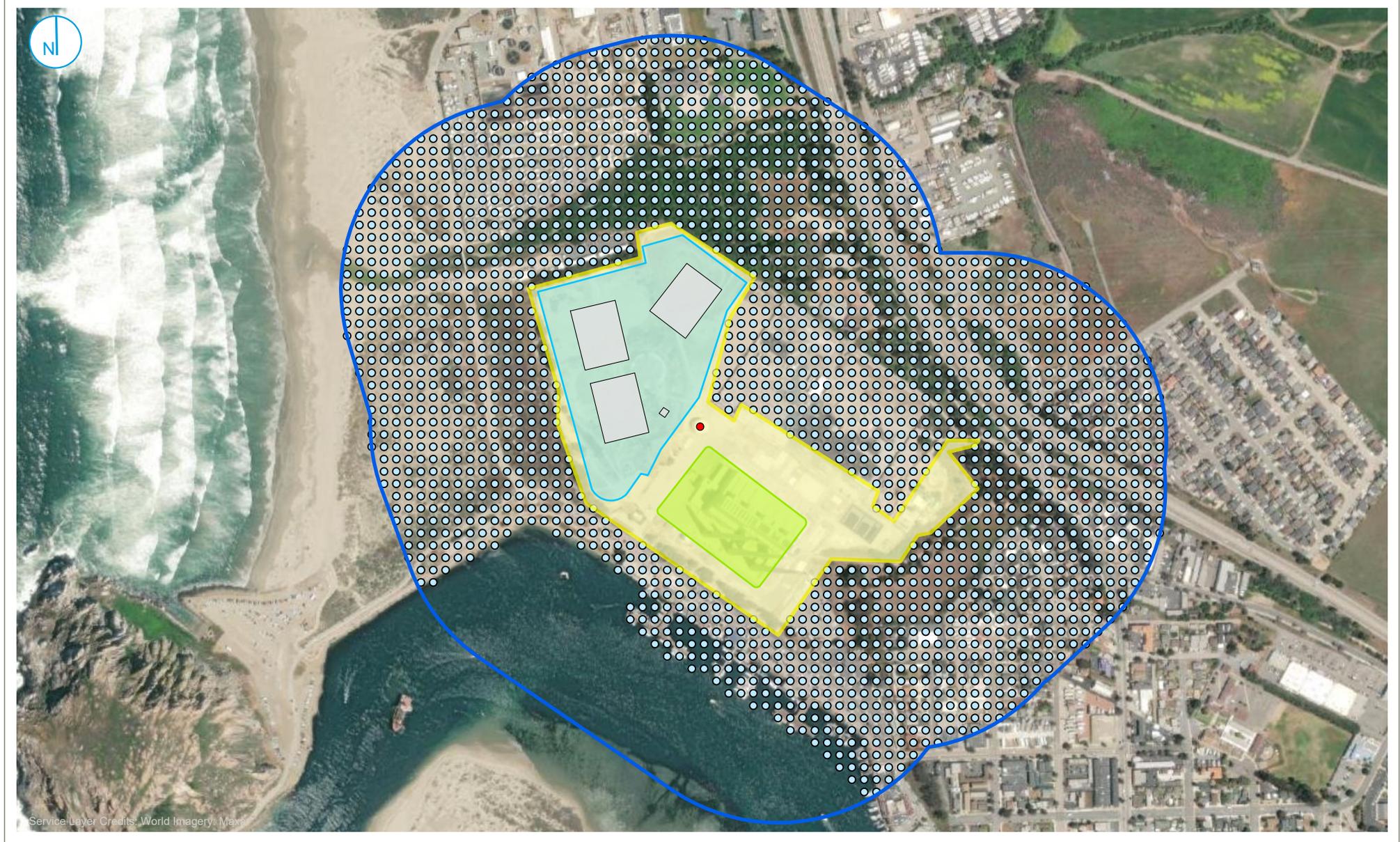
Obispo Air Pollution Control District

References:

OEHHA. 2015. Air Toxics Hot Spots Program. Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February. Available online at: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>

SLO County APCD. 2012. SLO County APCD CEQA Air Quality Handbook. Available online at: https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20MemoTable1-1_July2021%29_LinkedwithMemo.pdf

APPENDIX B
FIGURES



Service Layer Credits: World Imagery, Maxar

- Demolition Area
- Project Site Boundary
- Buildings
- Receptor Grid
- Construction Area
- Modeling Extent (1,000 ft. Buffer)
- Fire Pump

0 600 1,200 Feet

PROJECT BOUNDARY AND MODELING EXTENT

Morro Bay BESS Installation
City of Morro Bay
Morro Bay, California

FIGURE 01

RAMBOLL US CORPORATION
A RAMBOLL COMPANY





-  Project Site Boundary
-  Modeling Extent (1,000 ft. Buffer)
-  Maximally Exposed Individual Resident

0 600 1,200 Feet

MAXIMALLY EXPOSED INDIVIDUAL RECEPTOR LOCATION

Morro Bay BESS Installation
City of Morro Bay
Morro Bay, California

FIGURE 02

RAMBOLL US CORPORATION
A RAMBOLL COMPANY



APPENDIX C
CALEEMOD OUTPUT FILES

APPENDIX C.1

UMITIGATED CALEMOD EMISSIONS

Vistra BESS - Tier Mitigated v2 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vistra BESS - Tier Mitigated v2
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	24.0
Location	35.37488204736745, -120.85921757800375
County	San Luis Obispo
City	Morro Bay
Air District	San Luis Obispo County APCD
Air Basin	South Central Coast
TAZ	3324
EDFZ	6
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Southern California Gas

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
User Defined Industrial	1.00	User Defined Unit	24.0	273,000	0.00	—	—	Buildings housing battery energy storage system

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	50.4	278	468	364	0.40	20.6	18.3	26.1	18.9	8.42	20.1	—	48,061	48,061	2.02	1.95	24.4	48,335
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	50.3	42.4	469	363	0.40	20.6	18.3	27.3	18.9	8.42	20.1	—	47,853	47,853	2.05	1.95	0.68	48,105
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	31.1	31.4	297	223	0.28	12.3	8.99	18.5	11.4	3.83	12.5	—	34,130	34,130	1.35	1.40	7.39	34,314
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.67	5.74	54.1	40.6	0.05	2.25	1.64	3.37	2.07	0.70	2.29	—	5,651	5,651	0.22	0.23	1.22	5,681
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	—	—	—	—	—	7.00	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	Yes	—	—	—	—	—	Yes	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	137	137	—	—	—	—	—	7.00	—	—	—	—	—	—	—	—
Unmit.	—	No	Yes	—	—	—	—	—	Yes	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	16.7	14.1	136	105	0.23	5.45	18.2	23.6	5.01	8.28	13.3	—	25,585	25,585	1.05	0.23	3.94	25,685
2024	50.4	42.5	468	364	0.40	20.6	18.3	26.1	18.9	8.42	20.1	—	48,061	48,061	2.02	0.67	24.4	48,335
2025	43.6	36.8	415	313	0.40	17.3	4.80	22.1	15.9	1.13	17.0	—	47,952	47,952	2.01	0.67	22.7	48,225
2026	37.0	278	362	263	0.40	14.0	4.80	18.8	12.9	1.13	14.0	—	47,813	47,813	1.86	0.66	21.0	48,079
2027	8.34	6.65	60.1	45.1	0.19	2.60	11.1	13.7	2.33	2.15	4.48	—	25,165	25,165	1.06	1.95	24.0	25,796
2028	8.37	6.76	61.0	45.2	0.19	2.59	11.1	13.7	2.40	2.15	4.55	—	24,833	24,833	0.99	1.88	21.9	25,439
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	26.0	21.9	222	167	0.38	8.99	18.3	27.3	8.27	8.42	16.7	—	43,164	43,164	1.78	0.50	0.25	43,357
2024	50.3	42.4	469	363	0.40	20.6	18.3	26.1	18.9	8.42	20.1	—	47,853	47,853	2.05	0.67	0.63	48,105
2025	43.5	36.8	415	312	0.40	17.3	4.80	22.1	15.9	1.13	17.0	—	47,750	47,750	1.89	0.67	0.59	47,998
2026	36.9	31.2	362	262	0.40	14.0	11.1	18.8	12.9	2.15	14.0	—	47,615	47,615	1.89	1.95	0.68	47,860
2027	8.33	6.64	60.4	44.8	0.19	2.60	11.1	13.7	2.33	2.15	4.48	—	25,122	25,122	1.07	1.95	0.62	25,731
2028	8.36	6.75	61.3	45.0	0.19	2.59	11.1	13.7	2.40	2.15	4.55	—	24,791	24,791	0.99	1.88	0.57	25,377
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.11	3.46	34.7	26.2	0.06	1.40	3.27	4.67	1.29	1.50	2.79	—	6,694	6,694	0.28	0.07	0.60	6,724
2024	25.0	21.1	222	174	0.28	9.46	8.99	18.5	8.71	3.83	12.5	—	32,299	32,299	1.35	0.41	4.79	32,459
2025	31.1	26.2	297	223	0.28	12.3	3.38	15.7	11.4	0.80	12.1	—	34,130	34,130	1.35	0.48	7.01	34,314

2026	16.7	31.4	159	117	0.19	6.15	3.86	10.0	5.66	0.85	6.51	—	23,544	23,544	0.93	0.54	6.14	23,734
2027	5.95	4.74	43.2	32.0	0.14	1.85	7.91	9.76	1.67	1.53	3.19	—	17,949	17,949	0.76	1.40	7.39	18,391
2028	2.49	2.01	18.3	13.4	0.06	0.77	3.29	4.06	0.71	0.64	1.35	—	7,376	7,376	0.29	0.56	2.81	7,553
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.75	0.63	6.34	4.78	0.01	0.26	0.60	0.85	0.24	0.27	0.51	—	1,108	1,108	0.05	0.01	0.10	1,113
2024	4.57	3.85	40.6	31.7	0.05	1.73	1.64	3.37	1.59	0.70	2.29	—	5,347	5,347	0.22	0.07	0.79	5,374
2025	5.67	4.79	54.1	40.6	0.05	2.25	0.62	2.87	2.07	0.15	2.22	—	5,651	5,651	0.22	0.08	1.16	5,681
2026	3.05	5.74	29.0	21.4	0.03	1.12	0.70	1.83	1.03	0.16	1.19	—	3,898	3,898	0.15	0.09	1.02	3,930
2027	1.09	0.87	7.89	5.84	0.03	0.34	1.44	1.78	0.30	0.28	0.58	—	2,972	2,972	0.13	0.23	1.22	3,045
2028	0.45	0.37	3.34	2.44	0.01	0.14	0.60	0.74	0.13	0.12	0.25	—	1,221	1,221	0.05	0.09	0.47	1,250

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.23	9.63	0.27	12.3	< 0.005	0.02	0.03	0.05	0.03	0.01	0.03	0.00	1,696	1,696	0.26	0.03	0.28	1,713
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11	7.68	0.18	0.47	< 0.005	0.01	0.03	0.04	0.01	0.01	0.01	0.00	1,644	1,644	0.25	0.03	0.01	1,661
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.01	9.43	0.26	11.1	< 0.005	0.02	0.02	0.04	0.03	< 0.005	0.03	0.00	1,666	1,666	0.25	0.03	0.08	1,683
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.37	1.72	0.05	2.03	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.01	0.00	276	276	0.04	0.01	0.01	279

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	84.6	84.6	< 0.005	< 0.005	0.28	86.1
Area	2.11	9.53	0.10	11.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.8	48.8	< 0.005	< 0.005	—	49.0
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,539	1,539	0.25	0.03	—	1,554
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	2.23	9.63	0.27	12.3	< 0.005	0.02	0.03	0.05	0.03	0.01	0.03	0.00	1,696	1,696	0.26	0.03	0.28	1,713
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	82.0	82.0	< 0.005	< 0.005	0.01	83.4
Area	—	7.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,539	1,539	0.25	0.03	—	1,554
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	0.11	7.68	0.18	0.47	< 0.005	0.01	0.03	0.04	0.01	0.01	0.01	0.00	1,644	1,644	0.25	0.03	0.01	1,661
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.04	0.25	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	58.9	58.9	< 0.005	< 0.005	0.08	59.9
Area	1.91	9.34	0.09	10.7	< 0.005	0.01	—	0.01	0.02	—	0.02	—	44.1	44.1	< 0.005	< 0.005	—	44.3

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,539	1,539	0.25	0.03	—	1,554
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.2	24.2	< 0.005	< 0.005	—	24.2
Total	2.01	9.43	0.26	11.1	< 0.005	0.02	0.02	0.04	0.03	< 0.005	0.03	0.00	1,666	1,666	0.25	0.03	0.08	1,683
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.75	9.75	< 0.005	< 0.005	0.01	9.92
Area	0.35	1.70	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.31	7.31	< 0.005	< 0.005	—	7.33
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	255	255	0.04	< 0.005	—	257
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.01	0.01	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01
Total	0.37	1.72	0.05	2.03	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.01	0.00	276	276	0.04	0.01	0.01	279

3. Construction Emissions Details

3.1. Demolition (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	7.06	5.94	47.2	36.4	0.12	2.40	—	2.40	2.21	—	2.21	—	12,924	12,924	0.52	0.10	—	12,969

Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
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	0.87	0.73	5.82	4.48	0.01	0.30	—	0.30	0.27	—	0.27	—	1,593	1,593	0.06	0.01	—	1,599
Demolition	—	—	—	—	—	—	0.88	0.88	—	0.13	0.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.06	0.82	< 0.005	0.05	—	0.05	0.05	—	0.05	—	264	264	0.01	< 0.005	—	265
Demolition	—	—	—	—	—	—	0.16	0.16	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.53	0.43	4.81	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	1,015	1,015	0.03	0.04	0.11	1,029
Vendor	0.01	< 0.005	0.16	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	110	110	< 0.005	0.02	0.01	114
Hauling	0.67	0.16	14.2	4.02	0.07	0.21	0.78	1.00	0.14	0.29	0.43	—	11,363	11,363	0.51	1.79	0.56	11,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.59	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	126	126	< 0.005	0.01	0.22	128
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.01	14.1

Hauling	0.08	0.02	1.76	0.49	0.01	0.03	0.10	0.12	0.02	0.04	0.05	—	1,401	1,401	0.06	0.22	1.15	1,469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	20.9	20.9	< 0.005	< 0.005	0.04	21.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.34
Hauling	0.02	< 0.005	0.32	0.09	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	232	232	0.01	0.04	0.19	243

3.3. Demolition (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.09	5.96	46.4	36.4	0.12	2.38	—	2.38	2.19	—	2.19	—	12,922	12,922	0.52	0.10	—	12,966
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
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	7.09	5.96	46.4	36.4	0.12	2.38	—	2.38	2.19	—	2.19	—	12,922	12,922	0.52	0.10	—	12,966
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
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	5.07	4.26	33.2	26.0	0.09	1.70	—	1.70	1.56	—	1.56	—	9,230	9,230	0.37	0.07	—	9,261

Demolition	—	—	—	—	—	—	5.11	5.11	—	0.77	0.77	—	—	—	—	—	—	—
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	0.92	0.78	6.05	4.75	0.02	0.31	—	0.31	0.29	—	0.29	—	1,528	1,528	0.06	0.01	—	1,533
Demolition	—	—	—	—	—	—	0.93	0.93	—	0.14	0.14	—	—	—	—	—	—	—
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	0.56	0.52	0.35	4.74	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	1,040	1,040	0.02	0.04	3.88	1,057
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	107	107	< 0.005	0.02	0.25	112
Hauling	0.67	0.16	13.2	3.87	0.07	0.21	0.78	1.00	0.14	0.29	0.43	—	11,095	11,095	0.51	1.79	19.9	11,661
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.52	0.40	4.49	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	997	997	0.03	0.04	0.10	1,011
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	107	107	< 0.005	0.02	0.01	112
Hauling	0.67	0.16	13.5	3.88	0.07	0.21	0.78	1.00	0.14	0.29	0.43	—	11,096	11,096	0.51	1.79	0.51	11,642
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.36	0.28	3.19	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	717	717	0.02	0.03	1.20	728
Vendor	0.01	< 0.005	0.11	0.04	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	76.6	76.6	< 0.005	0.01	0.08	80.1
Hauling	0.48	0.12	9.71	2.76	0.05	0.15	0.56	0.71	0.10	0.20	0.31	—	7,925	7,925	0.36	1.28	6.12	8,321
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.58	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	119	119	< 0.005	0.01	0.20	121
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.3

Hauling	0.09	0.02	1.77	0.50	0.01	0.03	0.10	0.13	0.02	0.04	0.06	—	1,312	1,312	0.06	0.21	1.01	1,378
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3.5. Demolition (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.24	6.08	48.0	37.0	0.12	2.45	—	2.45	2.25	—	2.25	—	12,905	12,905	0.52	0.10	—	12,949
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
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	7.24	6.08	48.0	37.0	0.12	2.45	—	2.45	2.25	—	2.25	—	12,905	12,905	0.52	0.10	—	12,949
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.15	1.81	14.3	11.0	0.04	0.73	—	0.73	0.67	—	0.67	—	3,839	3,839	0.16	0.03	—	3,852
Demolition	—	—	—	—	—	—	2.13	2.13	—	0.32	0.32	—	—	—	—	—	—	—
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	0.39	0.33	2.61	2.01	0.01	0.13	—	0.13	0.12	—	0.12	—	636	636	0.03	0.01	—	638
Demolition	—	—	—	—	—	—	0.39	0.39	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.51	0.31	4.46	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	1,022	1,022	0.02	0.04	3.56	1,039
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	104	104	< 0.005	0.02	0.22	109
Hauling	0.60	0.16	12.5	3.72	0.07	0.14	0.78	0.93	0.14	0.29	0.43	—	10,800	10,800	0.44	1.72	18.1	11,341
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.50	0.36	4.26	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	980	980	0.03	0.04	0.09	993
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	105	105	< 0.005	0.02	0.01	109
Hauling	0.60	0.16	12.8	3.73	0.07	0.14	0.78	0.93	0.14	0.29	0.43	—	10,801	10,801	0.44	1.72	0.47	11,324
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.15	0.11	1.26	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	293	293	0.01	0.01	0.46	298
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	31.1	31.1	< 0.005	< 0.005	0.03	32.5
Hauling	0.18	0.05	3.85	1.11	0.02	0.04	0.23	0.28	0.04	0.08	0.13	—	3,213	3,213	0.13	0.51	2.33	3,371
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.23	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	48.6	48.6	< 0.005	< 0.005	0.08	49.3
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.14	5.14	< 0.005	< 0.005	< 0.005	5.37
Hauling	0.03	0.01	0.70	0.20	< 0.005	0.01	0.04	0.05	0.01	0.02	0.02	—	532	532	0.02	0.08	0.39	558

3.7. Site Preparation (2023) - 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	16.2	13.6	136	100	0.23	5.45	—	5.45	5.01	—	5.01	—	24,750	24,750	1.00	0.20	—	24,835
Dust From Material Movement:	—	—	—	—	—	—	17.4	17.4	—	8.10	8.10	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	16.2	13.6	136	100	0.23	5.45	—	5.45	5.01	—	5.01	—	24,750	24,750	1.00	0.20	—	24,835
Dust From Material Movement:	—	—	—	—	—	—	17.4	17.4	—	8.10	8.10	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	8.17	6.04	0.01	0.33	—	0.33	0.30	—	0.30	—	1,492	1,492	0.06	0.01	—	1,497
Dust From Material Movement:	—	—	—	—	—	—	1.05	1.05	—	0.49	0.49	—	—	—	—	—	—	—

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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.49	1.10	< 0.005	0.06	—	0.06	0.06	—	0.06	—	247	247	0.01	< 0.005	—	248	
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.51	0.47	0.37	4.64	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	835	835	0.05	0.03	3.94	850	
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	0.51	0.47	0.43	4.41	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	800	800	0.05	0.03	0.10	811	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.03	0.03	0.02	0.26	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	48.6	48.6	< 0.005	< 0.005	0.10	49.3	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.04	8.04	< 0.005	< 0.005	0.02	8.17	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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3.9. Grading (2023) - 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	24.9	20.9	220	157	0.38	8.98	—	8.98	8.26	—	8.26	—	40,873	40,873	1.66	0.33	—	41,013	
Dust From Material Movement:	—	—	—	—	—	—	16.6	16.6	—	8.01	8.01	—	—	—	—	—	—	—	—
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.97	2.50	26.3	18.8	0.05	1.07	—	1.07	0.99	—	0.99	—	4,879	4,879	0.20	0.04	—	4,896	
Dust From Material Movement:	—	—	—	—	—	—	1.98	1.98	—	0.96	0.96	—	—	—	—	—	—	—	—
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	4.80	3.43	0.01	0.20	—	0.20	0.18	—	0.18	—	808	808	0.03	0.01	—	811	

Dust From Material Movement:	—	—	—	—	—	—	0.36	0.36	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01	0.94	0.86	8.82	0.00	0.00	0.10	0.10	0.00	0.00	0.00	—	1,600	1,600	0.10	0.07	0.20	1,622
Vendor	0.06	0.03	1.11	0.46	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	691	691	0.02	0.10	0.05	722
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	0.12	0.11	0.10	1.04	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	192	192	0.01	0.01	0.40	195
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	82.5	82.5	< 0.005	0.01	0.09	86.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	31.8	31.8	< 0.005	< 0.005	0.07	32.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.7	13.7	< 0.005	< 0.005	0.02	14.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2024) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	22.8	19.2	194	147	0.38	7.85	—	7.85	7.22	—	7.22	—	40,802	40,802	1.66	0.33	—	40,942
Dust From Material Movement	—	—	—	—	—	—	16.6	16.6	—	8.01	8.01	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	22.8	19.2	194	147	0.38	7.85	—	7.85	7.22	—	7.22	—	40,802	40,802	1.66	0.33	—	40,942
Dust From Material Movement	—	—	—	—	—	—	16.6	16.6	—	8.01	8.01	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	9.47	7.96	80.3	60.9	0.16	3.26	—	3.26	3.00	—	3.00	—	16,928	16,928	0.69	0.14	—	16,986
Dust From Material Movement	—	—	—	—	—	—	6.88	6.88	—	3.32	3.32	—	—	—	—	—	—	—
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	1.73	1.45	14.7	11.1	0.03	0.59	—	0.59	0.55	—	0.55	—	2,803	2,803	0.11	0.02	—	2,812

Dust From Material Movement:	—	—	—	—	—	—	1.25	1.25	—	0.61	0.61	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.98	0.87	0.69	8.63	0.00	0.00	0.10	0.10	0.00	0.00	0.00	—	1,641	1,641	0.09	0.07	7.34	1,670
Vendor	0.06	0.03	1.03	0.42	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	681	681	0.02	0.10	1.76	713
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	0.93	0.86	0.76	8.18	0.00	0.00	0.10	0.10	0.00	0.00	0.00	—	1,572	1,572	0.10	0.07	0.19	1,594
Vendor	0.06	0.03	1.07	0.43	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	681	681	0.02	0.10	0.05	712
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	0.38	0.35	0.31	3.39	0.00	0.00	0.04	0.04	0.00	0.00	0.00	—	657	657	0.04	0.03	1.31	667
Vendor	0.02	0.01	0.44	0.18	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	283	283	0.01	0.04	0.31	296
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	0.07	0.06	0.06	0.62	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	109	109	0.01	< 0.005	0.22	110
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	46.8	46.8	< 0.005	0.01	0.05	48.9
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

3.13. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	47.4	39.8	465	338	0.39	20.6	—	20.6	18.9	—	18.9	—	42,230	42,230	1.71	0.34	—	42,375
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	47.4	39.8	465	338	0.39	20.6	—	20.6	18.9	—	18.9	—	42,230	42,230	1.71	0.34	—	42,375
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	14.3	12.0	140	102	0.12	6.20	—	6.20	5.70	—	5.70	—	12,727	12,727	0.52	0.10	—	12,771
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.61	2.19	25.6	18.6	0.02	1.13	—	1.13	1.04	—	1.04	—	2,107	2,107	0.09	0.02	—	2,114
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.95	2.61	2.06	25.9	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,922	4,922	0.27	0.20	22.0	5,010
Vendor	0.08	0.04	1.38	0.56	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	908	908	0.03	0.13	2.35	951
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	2.80	2.57	2.28	24.5	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,715	4,715	0.30	0.20	0.57	4,781
Vendor	0.07	0.04	1.42	0.58	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	909	909	0.03	0.13	0.06	949
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	0.83	0.77	0.68	7.38	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,431	1,431	0.09	0.06	2.86	1,454
Vendor	0.02	0.01	0.43	0.17	< 0.005	< 0.005	0.01	0.02	< 0.005	0.01	0.01	—	274	274	0.01	0.04	0.30	286
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	0.15	0.14	0.12	1.35	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	237	237	0.01	0.01	0.47	241
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	45.3	45.3	< 0.005	0.01	0.05	47.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. 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	40.8	34.3	412	288	0.39	17.3	—	17.3	15.9	—	15.9	—	42,229	42,229	1.71	0.34	—	42,374
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	40.8	34.3	412	288	0.39	17.3	—	17.3	15.9	—	15.9	—	42,229	42,229	1.71	0.34	—	42,374
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	29.1	24.5	294	206	0.28	12.3	—	12.3	11.3	—	11.3	—	30,163	30,163	1.22	0.24	—	30,267
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.32	4.47	53.7	37.6	0.05	2.25	—	2.25	2.07	—	2.07	—	4,994	4,994	0.20	0.04	—	5,011	
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	2.70	2.51	1.89	24.1	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,831	4,831	0.26	0.20	20.4	4,916	
Vendor	0.07	0.04	1.31	0.53	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	892	892	0.03	0.13	2.34	935	
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	2.69	2.47	2.11	22.9	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,628	4,628	0.15	0.20	0.53	4,690	
Vendor	0.07	0.04	1.35	0.54	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	893	893	0.03	0.13	0.06	933	
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	1.89	1.74	1.49	16.4	0.00	0.00	0.20	0.20	0.00	0.00	0.00	—	3,329	3,329	0.10	0.14	6.29	3,380	
Vendor	0.05	0.03	0.96	0.38	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	638	638	0.02	0.10	0.72	667	
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	0.35	0.32	0.27	2.99	0.00	0.00	0.04	0.04	0.00	0.00	0.00	—	551	551	0.02	0.02	1.04	560	
Vendor	0.01	< 0.005	0.18	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	106	106	< 0.005	0.02	0.12	110	

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	0.00
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3.17. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	34.3	28.8	359	240	0.39	14.0	—	14.0	12.9	—	12.9	—	42,193	42,193	1.71	0.34	—	42,338	
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	34.3	28.8	359	240	0.39	14.0	—	14.0	12.9	—	12.9	—	42,193	42,193	1.71	0.34	—	42,338	
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	14.2	12.0	149	99.4	0.16	5.81	—	5.81	5.34	—	5.34	—	17,505	17,505	0.71	0.14	—	17,565	

Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	2.60	2.18	27.2	18.1	0.03	1.06	—	1.06	0.98	—	0.98	—	2,898	2,898	0.12	0.02	—	2,908
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	2.60	2.40	1.73	22.7	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,744	4,744	0.12	0.20	18.9	4,824
Vendor	0.06	0.03	1.25	0.50	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	876	876	0.03	0.13	2.18	917
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	2.58	2.38	1.94	21.5	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,545	4,545	0.15	0.20	0.49	4,607
Vendor	0.06	0.03	1.28	0.51	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	876	876	0.03	0.13	0.06	915
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	1.06	0.98	0.79	8.87	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,899	1,899	0.05	0.08	3.38	1,928
Vendor	0.03	0.01	0.53	0.21	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	364	364	0.01	0.05	0.39	380
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	0.19	0.18	0.15	1.62	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	314	314	0.01	0.01	0.56	319
Vendor	< 0.005	< 0.005	0.10	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	60.2	60.2	< 0.005	0.01	0.06	62.9
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

3.19. 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	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.60	2.40	1.73	22.7	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,744	4,744	0.12	0.20	18.9	4,824
Vendor	0.02	0.01	0.31	0.13	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	219	219	0.01	0.03	0.54	229
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	0.14	0.13	0.10	1.17	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	251	251	0.01	0.01	0.45	255
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.0	12.0	< 0.005	< 0.005	0.01	12.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.21	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	41.5	41.5	< 0.005	< 0.005	0.07	42.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.99	1.99	< 0.005	< 0.005	< 0.005	2.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Architectural Coating (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	—	275	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.41	8.41	< 0.005	< 0.005	—	8.44
Architectural Coatings	—	17.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.39	1.39	< 0.005	< 0.005	—	1.40
Architectural Coatings	—	3.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	2.60	2.40	1.73	22.7	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,744	4,744	0.12	0.20	18.9	4,824
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	0.16	0.15	0.12	1.35	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	288	288	0.01	0.01	0.51	293
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	0.03	0.03	0.02	0.25	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	47.8	47.8	< 0.005	< 0.005	0.09	48.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.06	0.06	0.05	0.35	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	84.6	84.6	< 0.005	< 0.005	0.28	86.1
Total	0.06	0.06	0.05	0.35	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	84.6	84.6	< 0.005	< 0.005	0.28	86.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	0.06	0.06	0.05	0.35	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	82.0	82.0	< 0.005	< 0.005	0.01	83.4
Total	0.06	0.06	0.05	0.35	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	82.0	82.0	< 0.005	< 0.005	0.01	83.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.01	0.01	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.75	9.75	< 0.005	< 0.005	0.01	9.92
Total	0.01	0.01	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.75	9.75	< 0.005	< 0.005	0.01	9.92

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	255	255	0.04	< 0.005	—	257
Total	—	—	—	—	—	—	—	—	—	—	—	—	255	255	0.04	< 0.005	—	257

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.11	1.95	0.10	11.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.8	48.8	< 0.005	< 0.005	—	49.0
Total	2.11	9.53	0.10	11.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.8	48.8	< 0.005	< 0.005	—	49.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	7.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipme	0.35	0.32	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.31	7.31	< 0.005	< 0.005	—	7.33
Total	0.35	1.70	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.31	7.31	< 0.005	< 0.005	—	7.33

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

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

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

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

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.01	0.01	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01
Total	0.01	0.01	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	10/30/2026	5/31/2028	5.00	414	—
Site Preparation	Site Preparation	9/30/2023	10/31/2023	5.00	22.0	—
Grading	Grading	11/1/2023	7/30/2024	5.00	195	—
Building Construction	Building Construction	7/31/2024	7/31/2026	5.00	523	—
Paving	Paving	8/1/2026	8/28/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	8/29/2026	9/30/2026	5.00	23.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Skid Steer Loaders	Diesel	Average	1.00	5.00	85.0	0.37
Demolition	Cranes	Diesel	Average	1.00	4.00	335	0.29
Demolition	Skid Steer Loaders	Diesel	Average	1.00	5.00	85.0	0.37
Site Preparation	Scrapers	Diesel	Average	2.00	8.00	500	0.48
Site Preparation	Rubber Tired Dozers	Diesel	Average	6.00	8.00	300	0.40
Grading	Excavators	Diesel	Average	10.0	8.00	600	0.38
Grading	Forklifts	Diesel	Average	4.00	8.00	150	0.20
Grading	Rubber Tired Loaders	Diesel	Average	2.00	8.00	300	0.40
Grading	Graders	Diesel	Average	6.00	8.00	250	0.41
Grading	Off-Highway Trucks	Diesel	Average	3.00	8.00	350	0.37
Building Construction	Cranes	Diesel	Average	16.0	8.00	750	0.29
Building Construction	Forklifts	Diesel	Average	4.00	8.00	150	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	5.00	8.00	120	0.37
Building Construction	Trenchers	Diesel	Average	4.00	8.00	250	0.50
Building Construction	Off-Highway Trucks	Diesel	Average	3.00	8.00	350	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
Demolition	Excavators	Diesel	Average	1.00	8.00	700	0.38
Demolition	Concrete/Industrial Saws	Electric	Average	1.00	5.00	85.0	0.73
Demolition	Skid Steer Loaders	Diesel	Average	2.00	6.00	85.0	0.37

Demolition	Excavators	Diesel	Average	1.00	8.00	700	0.38
Demolition	Excavators	Diesel	Average	1.00	8.00	435	0.38
Demolition	Excavators	Diesel	Average	2.00	8.00	360	0.38
Demolition	Excavators	Diesel	Average	1.00	8.00	355	0.38
Demolition	Excavators	Diesel	Average	1.00	4.00	290	0.38
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	225	0.37
Demolition	Cranes	Diesel	Average	1.00	4.00	335	0.29
Site Preparation	Graders	Diesel	Average	6.00	8.00	250	0.41
Site Preparation	Rubber Tired Loaders	Diesel	Average	2.00	8.00	300	0.36
Site Preparation	Off-Highway Trucks	Diesel	Average	3.00	8.00	350	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	5.00	8.00	120	0.37
Grading	Rubber Tired Dozers	Diesel	Average	6.00	8.00	300	0.40
Building Construction	Rubber Tired Loaders	Diesel	Average	2.00	8.00	300	0.36

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	134	10.8	LDA,LDT1,LDT2
Demolition	Vendor	5.00	6.85	HHDT,MHDT
Demolition	Hauling	32.0	101	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	100	10.8	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	6.85	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	—	HHDT
Grading	—	—	—	—
Grading	Worker	200	10.8	LDA,LDT1,LDT2
Grading	Vendor	30.0	6.85	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	0.00	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	600	10.8	LDA,LDT1,LDT2
Building Construction	Vendor	40.0	6.85	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	600	10.8	LDA,LDT1,LDT2
Paving	Vendor	10.0	6.85	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	600	10.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.85	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	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	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	409,500	136,500	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	134,000	—
Site Preparation	—	—	176	0.00	—
Grading	—	—	1,170	0.00	—
Building Construction	—	—	24.0	0.00	—
Paving	0.00	0.00	0.00	0.00	5.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	5.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	231	204	0.03	< 0.005
2027	231	204	0.03	< 0.005
2028	231	204	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
User Defined Industrial	13.0	0.00	0.00	3,389	105	0.00	0.00	27,266

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	409,500	136,500	—

5.10.3. Landscape Equipment

Season	Unit	Value
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Snow Days	day/yr	0.00
Summer Days	day/yr	330

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)
User Defined Industrial	2,753,533	204	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)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	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
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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
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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
Fire Pump	Diesel	1.00	0.08	30.0	350	0.73

5.16.2. Process Boilers

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	8.70	annual days of extreme heat
Extreme Precipitation	4.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	36.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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

6.2. Initial Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	8.43
AQ-DPM	16.6
Drinking Water	44.2
Lead Risk Housing	54.6
Pesticides	61.6
Toxic Releases	11.4
Traffic	40.3
Effect Indicators	—
CleanUp Sites	78.0
Groundwater	35.0
Haz Waste Facilities/Generators	78.4
Impaired Water Bodies	83.0
Solid Waste	59.2
Sensitive Population	—
Asthma	40.0
Cardio-vascular	25.3

Low Birth Weights	98.9
Socioeconomic Factor Indicators	—
Education	26.4
Housing	17.4
Linguistic	—
Poverty	52.1
Unemployment	—

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	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—

Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	75.3
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	0.0
Cognitively Disabled	9.6
Physically Disabled	23.7
Heart Attack ER Admissions	73.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0

Pedestrian Injuries	0.0
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	0.0
SLR Inundation Area	65.9
Children	94.5
Elderly	6.6
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	87.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	54.0
Traffic Density	0.0
Traffic Access	0.0
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	46.0

Healthy Places Index Score for Project Location (b)	—
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
Land Use	Land use changed to reflect information provided by project sponsor.
Construction: Construction Phases	All phases - updated duration to match information provided by project sponsor
Construction: Off-Road Equipment	All phases - updated construction equipment list to match information provided by project sponsor
Operations: Vehicle Data	Weekday trip rate - adjusted to reflect information provided by project sponsor
Operations: Energy Use	Energy use - used electricity intensity defaults for General Light Industry in EDFZ 6 (Central Coast). The buildings housing the batteries are not expected to use any natural gas, as there will be no refrigeration or heating capacity.
Construction: Trips and VMT	Updated trip numbers and trip length to match information provided by the project sponsor.
Construction: Dust From Material Movement	In the data request, water trucks are associated with building construction and are added here to reflect that. Total acres graded for Building Construction was set to 24 to reflect the project acreage
Construction: Paving	Update paved area acreage to reflect information provided by the project sponsor.

APPENDIX C.2

MITIGATED CALEMOD EMISSIONS

Vistra BESS - Tier Mitigated v3 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vistra BESS - Tier Mitigated v3
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	24.0
Location	35.37488204736745, -120.85921757800375
County	San Luis Obispo
City	Morro Bay
Air District	San Luis Obispo County APCD
Air Basin	South Central Coast
TAZ	3324
EDFZ	6
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Southern California Gas

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
User Defined Industrial	1.00	User Defined Unit	24.0	273,000	0.00	—	—	Buildings housing battery energy storage system

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.70	278	103	211	0.40	0.78	18.3	19.0	0.78	8.42	9.20	—	48,061	48,061	2.02	1.95	24.4	48,335
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.73	5.63	103	212	0.40	0.78	18.3	19.0	0.78	8.42	9.20	—	47,853	47,853	2.05	1.95	0.68	48,105
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.72	19.6	55.9	118	0.28	0.41	8.99	9.40	0.41	3.83	4.23	—	34,130	34,130	1.35	1.40	7.39	34,314
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.68	3.58	10.2	21.6	0.05	0.07	1.64	1.72	0.07	0.70	0.77	—	5,651	5,651	0.22	0.23	1.22	5,681
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	137	—	—	—	—	—	7.00	—	—	—	—	—	—	—	—	—
Unmit.	—	Yes	No	—	—	—	—	—	No	—	—	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	137	137	—	—	—	—	—	7.00	—	—	—	—	—	—	—	—
Unmit.	—	No	No	—	—	—	—	—	No	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	3.39	3.36	64.1	131	0.23	0.47	18.2	18.6	0.47	8.28	8.75	—	25,585	25,585	1.05	0.23	3.94	25,685
2024	5.70	5.56	103	211	0.40	0.78	18.3	19.0	0.78	8.42	9.20	—	48,061	48,061	2.02	0.67	24.4	48,335
2025	4.51	4.28	43.2	101	0.40	0.28	4.80	5.08	0.28	1.13	1.42	—	47,952	47,952	2.01	0.67	22.7	48,225
2026	4.40	278	43.0	100.0	0.40	0.28	4.80	5.08	0.28	1.13	1.42	—	47,813	47,813	1.86	0.66	21.0	48,079
2027	2.74	2.18	46.5	73.9	0.19	0.46	11.1	11.6	0.39	2.15	2.54	—	25,165	25,165	1.06	1.95	24.0	25,796
2028	2.63	2.17	45.8	73.5	0.19	0.39	11.1	11.5	0.39	2.15	2.54	—	24,833	24,833	0.99	1.88	21.9	25,439
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	5.73	5.63	103	212	0.38	0.78	18.3	19.0	0.78	8.42	9.20	—	43,164	43,164	1.78	0.50	0.25	43,357
2024	5.65	5.54	103	211	0.40	0.78	18.3	19.0	0.78	8.42	9.20	—	47,853	47,853	2.05	0.67	0.63	48,105
2025	4.50	4.24	43.5	100	0.40	0.28	4.80	5.08	0.28	1.13	1.42	—	47,750	47,750	1.89	0.67	0.59	47,998
2026	4.39	4.14	47.6	98.8	0.40	0.46	11.1	11.6	0.39	2.15	2.54	—	47,615	47,615	1.89	1.95	0.68	47,860
2027	2.74	2.18	46.9	73.7	0.19	0.46	11.1	11.6	0.39	2.15	2.54	—	25,122	25,122	1.07	1.95	0.62	25,731
2028	2.62	2.17	46.2	73.3	0.19	0.39	11.1	11.5	0.39	2.15	2.54	—	24,791	24,791	0.99	1.88	0.57	25,377
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.89	0.87	16.2	33.1	0.06	0.12	3.27	3.39	0.12	1.50	1.62	—	6,694	6,694	0.28	0.07	0.60	6,724
2024	3.72	3.60	55.9	118	0.28	0.41	8.99	9.40	0.41	3.83	4.23	—	32,299	32,299	1.35	0.41	4.79	32,459
2025	3.19	3.01	31.0	71.6	0.28	0.20	3.38	3.58	0.20	0.80	1.00	—	34,130	34,130	1.35	0.48	7.01	34,314

2026	2.46	19.6	24.5	53.3	0.19	0.18	3.86	4.04	0.17	0.85	1.02	—	23,544	23,544	0.93	0.54	6.14	23,734
2027	1.95	1.55	33.6	52.6	0.14	0.33	7.91	8.24	0.28	1.53	1.80	—	17,949	17,949	0.76	1.40	7.39	18,391
2028	0.78	0.64	13.8	21.8	0.06	0.12	3.29	3.41	0.12	0.64	0.75	—	7,376	7,376	0.29	0.56	2.81	7,553
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.16	0.16	2.95	6.04	0.01	0.02	0.60	0.62	0.02	0.27	0.30	—	1,108	1,108	0.05	0.01	0.10	1,113
2024	0.68	0.66	10.2	21.6	0.05	0.07	1.64	1.72	0.07	0.70	0.77	—	5,347	5,347	0.22	0.07	0.79	5,374
2025	0.58	0.55	5.66	13.1	0.05	0.04	0.62	0.65	0.04	0.15	0.18	—	5,651	5,651	0.22	0.08	1.16	5,681
2026	0.45	3.58	4.47	9.72	0.03	0.03	0.70	0.74	0.03	0.16	0.19	—	3,898	3,898	0.15	0.09	1.02	3,930
2027	0.36	0.28	6.12	9.60	0.03	0.06	1.44	1.50	0.05	0.28	0.33	—	2,972	2,972	0.13	0.23	1.22	3,045
2028	0.14	0.12	2.51	3.98	0.01	0.02	0.60	0.62	0.02	0.12	0.14	—	1,221	1,221	0.05	0.09	0.47	1,250

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.23	9.63	0.27	12.3	< 0.005	0.02	0.03	0.05	0.03	0.01	0.03	0.00	1,696	1,696	0.26	0.03	0.28	1,713
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11	7.68	0.18	0.47	< 0.005	0.01	0.03	0.04	0.01	0.01	0.01	0.00	1,644	1,644	0.25	0.03	0.01	1,661
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.01	9.43	0.26	11.1	< 0.005	0.02	0.02	0.04	0.03	< 0.005	0.03	0.00	1,666	1,666	0.25	0.03	0.08	1,683
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.37	1.72	0.05	2.03	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.01	0.00	276	276	0.04	0.01	0.01	279

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	84.6	84.6	< 0.005	< 0.005	0.28	86.1
Area	2.11	9.53	0.10	11.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.8	48.8	< 0.005	< 0.005	—	49.0
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,539	1,539	0.25	0.03	—	1,554
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	2.23	9.63	0.27	12.3	< 0.005	0.02	0.03	0.05	0.03	0.01	0.03	0.00	1,696	1,696	0.26	0.03	0.28	1,713
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	82.0	82.0	< 0.005	< 0.005	0.01	83.4
Area	—	7.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,539	1,539	0.25	0.03	—	1,554
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	0.11	7.68	0.18	0.47	< 0.005	0.01	0.03	0.04	0.01	0.01	0.01	0.00	1,644	1,644	0.25	0.03	0.01	1,661
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.04	0.25	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	58.9	58.9	< 0.005	< 0.005	0.08	59.9
Area	1.91	9.34	0.09	10.7	< 0.005	0.01	—	0.01	0.02	—	0.02	—	44.1	44.1	< 0.005	< 0.005	—	44.3

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,539	1,539	0.25	0.03	—	1,554
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.2	24.2	< 0.005	< 0.005	—	24.2
Total	2.01	9.43	0.26	11.1	< 0.005	0.02	0.02	0.04	0.03	< 0.005	0.03	0.00	1,666	1,666	0.25	0.03	0.08	1,683
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.75	9.75	< 0.005	< 0.005	0.01	9.92
Area	0.35	1.70	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.31	7.31	< 0.005	< 0.005	—	7.33
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	255	255	0.04	< 0.005	—	257
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Stationary	0.01	0.01	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01
Total	0.37	1.72	0.05	2.03	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.01	0.00	276	276	0.04	0.01	0.01	279

3. Construction Emissions Details

3.1. Demolition (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	1.50	1.50	32.8	65.2	0.12	0.24	—	0.24	0.24	—	0.24	—	12,924	12,924	0.52	0.10	—	12,969

Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
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	0.18	0.18	4.05	8.04	0.01	0.03	—	0.03	0.03	—	0.03	—	1,593	1,593	0.06	0.01	—	1,599
Demolition	—	—	—	—	—	—	0.88	0.88	—	0.13	0.13	—	—	—	—	—	—	—
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	0.74	1.47	< 0.005	0.01	—	0.01	0.01	—	0.01	—	264	264	0.01	< 0.005	—	265
Demolition	—	—	—	—	—	—	0.16	0.16	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.53	0.43	4.81	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	1,015	1,015	0.03	0.04	0.11	1,029
Vendor	0.01	< 0.005	0.16	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	110	110	< 0.005	0.02	0.01	114
Hauling	0.67	0.16	14.2	4.02	0.07	0.21	0.78	1.00	0.14	0.29	0.43	—	11,363	11,363	0.51	1.79	0.56	11,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.59	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	126	126	< 0.005	0.01	0.22	128
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.01	14.1

Hauling	0.08	0.02	1.76	0.49	0.01	0.03	0.10	0.12	0.02	0.04	0.05	—	1,401	1,401	0.06	0.22	1.15	1,469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	20.9	20.9	< 0.005	< 0.005	0.04	21.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.34
Hauling	0.02	< 0.005	0.32	0.09	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	232	232	0.01	0.04	0.19	243

3.3. Demolition (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.50	32.8	65.2	0.12	0.24	—	0.24	0.24	—	0.24	—	12,922	12,922	0.52	0.10	—	12,966
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.50	32.8	65.2	0.12	0.24	—	0.24	0.24	—	0.24	—	12,922	12,922	0.52	0.10	—	12,966
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
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	1.07	1.07	23.5	46.6	0.09	0.17	—	0.17	0.17	—	0.17	—	9,230	9,230	0.37	0.07	—	9,261

Demolition	—	—	—	—	—	—	5.11	5.11	—	0.77	0.77	—	—	—	—	—	—	—
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	0.20	0.20	4.28	8.50	0.02	0.03	—	0.03	0.03	—	0.03	—	1,528	1,528	0.06	0.01	—	1,533
Demolition	—	—	—	—	—	—	0.93	0.93	—	0.14	0.14	—	—	—	—	—	—	—
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	0.56	0.52	0.35	4.74	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	1,040	1,040	0.02	0.04	3.88	1,057
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	107	107	< 0.005	0.02	0.25	112
Hauling	0.67	0.16	13.2	3.87	0.07	0.21	0.78	1.00	0.14	0.29	0.43	—	11,095	11,095	0.51	1.79	19.9	11,661
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.52	0.40	4.49	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	997	997	0.03	0.04	0.10	1,011
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	107	107	< 0.005	0.02	0.01	112
Hauling	0.67	0.16	13.5	3.88	0.07	0.21	0.78	1.00	0.14	0.29	0.43	—	11,096	11,096	0.51	1.79	0.51	11,642
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.36	0.28	3.19	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	717	717	0.02	0.03	1.20	728
Vendor	0.01	< 0.005	0.11	0.04	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	76.6	76.6	< 0.005	0.01	0.08	80.1
Hauling	0.48	0.12	9.71	2.76	0.05	0.15	0.56	0.71	0.10	0.20	0.31	—	7,925	7,925	0.36	1.28	6.12	8,321
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.58	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	119	119	< 0.005	0.01	0.20	121
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.3

Hauling	0.09	0.02	1.77	0.50	0.01	0.03	0.10	0.13	0.02	0.04	0.06	—	1,312	1,312	0.06	0.21	1.01	1,378
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3.5. Demolition (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.50	32.8	65.2	0.12	0.24	—	0.24	0.24	—	0.24	—	12,905	12,905	0.52	0.10	—	12,949
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.50	32.8	65.2	0.12	0.24	—	0.24	0.24	—	0.24	—	12,905	12,905	0.52	0.10	—	12,949
Demolition	—	—	—	—	—	—	7.15	7.15	—	1.08	1.08	—	—	—	—	—	—	—
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	0.45	9.77	19.4	0.04	0.07	—	0.07	0.07	—	0.07	—	3,839	3,839	0.16	0.03	—	3,852
Demolition	—	—	—	—	—	—	2.13	2.13	—	0.32	0.32	—	—	—	—	—	—	—
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	0.08	1.78	3.54	0.01	0.01	—	0.01	0.01	—	0.01	—	636	636	0.03	0.01	—	638
Demolition	—	—	—	—	—	—	0.39	0.39	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.51	0.31	4.46	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	1,022	1,022	0.02	0.04	3.56	1,039
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	104	104	< 0.005	0.02	0.22	109
Hauling	0.60	0.16	12.5	3.72	0.07	0.14	0.78	0.93	0.14	0.29	0.43	—	10,800	10,800	0.44	1.72	18.1	11,341
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.50	0.36	4.26	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	980	980	0.03	0.04	0.09	993
Vendor	0.01	< 0.005	0.15	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	105	105	< 0.005	0.02	0.01	109
Hauling	0.60	0.16	12.8	3.73	0.07	0.14	0.78	0.93	0.14	0.29	0.43	—	10,801	10,801	0.44	1.72	0.47	11,324
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.15	0.11	1.26	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	293	293	0.01	0.01	0.46	298
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	31.1	31.1	< 0.005	< 0.005	0.03	32.5
Hauling	0.18	0.05	3.85	1.11	0.02	0.04	0.23	0.28	0.04	0.08	0.13	—	3,213	3,213	0.13	0.51	2.33	3,371
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.23	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	48.6	48.6	< 0.005	< 0.005	0.08	49.3
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.14	5.14	< 0.005	< 0.005	< 0.005	5.37
Hauling	0.03	0.01	0.70	0.20	< 0.005	0.01	0.04	0.05	0.01	0.02	0.02	—	532	532	0.02	0.08	0.39	558

3.7. Site Preparation (2023) - 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	2.88	2.88	63.7	126	0.23	0.47	—	0.47	0.47	—	0.47	—	24,750	24,750	1.00	0.20	—	24,835
Dust From Material Movement:	—	—	—	—	—	—	17.4	17.4	—	8.10	8.10	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.88	2.88	63.7	126	0.23	0.47	—	0.47	0.47	—	0.47	—	24,750	24,750	1.00	0.20	—	24,835
Dust From Material Movement:	—	—	—	—	—	—	17.4	17.4	—	8.10	8.10	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.17	3.84	7.59	0.01	0.03	—	0.03	0.03	—	0.03	—	1,492	1,492	0.06	0.01	—	1,497
Dust From Material Movement:	—	—	—	—	—	—	1.05	1.05	—	0.49	0.49	—	—	—	—	—	—	—

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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.70	1.39	< 0.005	0.01	—	0.01	0.01	—	0.01	—	247	247	0.01	< 0.005	—	248	
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.51	0.47	0.37	4.64	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	835	835	0.05	0.03	3.94	850	
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	0.51	0.47	0.43	4.41	0.00	0.00	0.05	0.05	0.00	0.00	0.00	—	800	800	0.05	0.03	0.10	811	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.03	0.03	0.02	0.26	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	48.6	48.6	< 0.005	< 0.005	0.10	49.3	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.04	8.04	< 0.005	< 0.005	0.02	8.17	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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3.9. Grading (2023) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.66	4.66	101	202	0.38	0.77	—	0.77	0.77	—	0.77	—	40,873	40,873	1.66	0.33	—	41,013
Dust From Material Movement:	—	—	—	—	—	—	16.6	16.6	—	8.01	8.01	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.56	12.1	24.2	0.05	0.09	—	0.09	0.09	—	0.09	—	4,879	4,879	0.20	0.04	—	4,896
Dust From Material Movement:	—	—	—	—	—	—	1.98	1.98	—	0.96	0.96	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.10	2.20	4.41	0.01	0.02	—	0.02	0.02	—	0.02	—	808	808	0.03	0.01	—	811

Dust From Material Movement:	—	—	—	—	—	—	0.36	0.36	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01	0.94	0.86	8.82	0.00	0.00	0.10	0.10	0.00	0.00	0.00	—	1,600	1,600	0.10	0.07	0.20	1,622
Vendor	0.06	0.03	1.11	0.46	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	691	691	0.02	0.10	0.05	722
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	0.12	0.11	0.10	1.04	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	192	192	0.01	0.01	0.40	195
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	82.5	82.5	< 0.005	0.01	0.09	86.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	31.8	31.8	< 0.005	< 0.005	0.07	32.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.7	13.7	< 0.005	< 0.005	0.02	14.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2024) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.66	4.66	101	202	0.38	0.77	—	0.77	0.77	—	0.77	—	40,802	40,802	1.66	0.33	—	40,942
Dust From Material Movement:	—	—	—	—	—	—	16.6	16.6	—	8.01	8.01	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.66	4.66	101	202	0.38	0.77	—	0.77	0.77	—	0.77	—	40,802	40,802	1.66	0.33	—	40,942
Dust From Material Movement:	—	—	—	—	—	—	16.6	16.6	—	8.01	8.01	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.93	1.93	41.9	84.0	0.16	0.32	—	0.32	0.32	—	0.32	—	16,928	16,928	0.69	0.14	—	16,986
Dust From Material Movement:	—	—	—	—	—	—	6.88	6.88	—	3.32	3.32	—	—	—	—	—	—	—
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	0.35	0.35	7.65	15.3	0.03	0.06	—	0.06	0.06	—	0.06	—	2,803	2,803	0.11	0.02	—	2,812

Dust From Material Movement:	—	—	—	—	—	—	1.25	1.25	—	0.61	0.61	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.98	0.87	0.69	8.63	0.00	0.00	0.10	0.10	0.00	0.00	0.00	—	1,641	1,641	0.09	0.07	7.34	1,670
Vendor	0.06	0.03	1.03	0.42	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	681	681	0.02	0.10	1.76	713
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	0.93	0.86	0.76	8.18	0.00	0.00	0.10	0.10	0.00	0.00	0.00	—	1,572	1,572	0.10	0.07	0.19	1,594
Vendor	0.06	0.03	1.07	0.43	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	681	681	0.02	0.10	0.05	712
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	0.38	0.35	0.31	3.39	0.00	0.00	0.04	0.04	0.00	0.00	0.00	—	657	657	0.04	0.03	1.31	667
Vendor	0.02	0.01	0.44	0.18	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	283	283	0.01	0.04	0.31	296
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	0.07	0.06	0.06	0.62	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	109	109	0.01	< 0.005	0.22	110
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	46.8	46.8	< 0.005	0.01	0.05	48.9
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

3.13. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	1.74	40.0	76.8	0.39	0.27	—	0.27	0.27	—	0.27	—	42,230	42,230	1.71	0.34	—	42,375
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	1.74	40.0	76.8	0.39	0.27	—	0.27	0.27	—	0.27	—	42,230	42,230	1.71	0.34	—	42,375
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.52	12.1	23.2	0.12	0.08	—	0.08	0.08	—	0.08	—	12,727	12,727	0.52	0.10	—	12,771
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.10	2.20	4.22	0.02	0.01	—	0.01	0.01	—	0.01	—	2,107	2,107	0.09	0.02	—	2,114
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.95	2.61	2.06	25.9	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,922	4,922	0.27	0.20	22.0	5,010
Vendor	0.08	0.04	1.38	0.56	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	908	908	0.03	0.13	2.35	951
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	2.80	2.57	2.28	24.5	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,715	4,715	0.30	0.20	0.57	4,781
Vendor	0.07	0.04	1.42	0.58	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	909	909	0.03	0.13	0.06	949
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	0.83	0.77	0.68	7.38	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,431	1,431	0.09	0.06	2.86	1,454
Vendor	0.02	0.01	0.43	0.17	< 0.005	< 0.005	0.01	0.02	< 0.005	0.01	0.01	—	274	274	0.01	0.04	0.30	286
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	0.15	0.14	0.12	1.35	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	237	237	0.01	0.01	0.47	241
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	45.3	45.3	< 0.005	0.01	0.05	47.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. 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	1.74	1.74	40.0	76.8	0.39	0.27	—	0.27	0.27	—	0.27	—	42,229	42,229	1.71	0.34	—	42,374
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	1.74	40.0	76.8	0.39	0.27	—	0.27	0.27	—	0.27	—	42,229	42,229	1.71	0.34	—	42,374
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	1.24	28.6	54.9	0.28	0.19	—	0.19	0.19	—	0.19	—	30,163	30,163	1.22	0.24	—	30,267
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	5.22	10.0	0.05	0.04	—	0.04	0.04	—	0.04	—	4,994	4,994	0.20	0.04	—	5,011	
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	2.70	2.51	1.89	24.1	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,831	4,831	0.26	0.20	20.4	4,916	
Vendor	0.07	0.04	1.31	0.53	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	892	892	0.03	0.13	2.34	935	
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	2.69	2.47	2.11	22.9	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,628	4,628	0.15	0.20	0.53	4,690	
Vendor	0.07	0.04	1.35	0.54	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	893	893	0.03	0.13	0.06	933	
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	1.89	1.74	1.49	16.4	0.00	0.00	0.20	0.20	0.00	0.00	0.00	—	3,329	3,329	0.10	0.14	6.29	3,380	
Vendor	0.05	0.03	0.96	0.38	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	638	638	0.02	0.10	0.72	667	
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	0.35	0.32	0.27	2.99	0.00	0.00	0.04	0.04	0.00	0.00	0.00	—	551	551	0.02	0.02	1.04	560	
Vendor	0.01	< 0.005	0.18	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	106	106	< 0.005	0.02	0.12	110	

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	0.00
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3.17. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	1.74	40.0	76.8	0.39	0.27	—	0.27	0.27	—	0.27	—	42,193	42,193	1.71	0.34	—	42,338
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	1.74	40.0	76.8	0.39	0.27	—	0.27	0.27	—	0.27	—	42,193	42,193	1.71	0.34	—	42,338
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.72	16.6	31.9	0.16	0.11	—	0.11	0.11	—	0.11	—	17,505	17,505	0.71	0.14	—	17,565

Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.13	0.13	3.03	5.82	0.03	0.02	—	0.02	0.02	—	0.02	—	2,898	2,898	0.12	0.02	—	2,908
Dust From Material Movement:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	2.60	2.40	1.73	22.7	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,744	4,744	0.12	0.20	18.9	4,824
Vendor	0.06	0.03	1.25	0.50	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	876	876	0.03	0.13	2.18	917
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	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	2.58	2.38	1.94	21.5	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,545	4,545	0.15	0.20	0.49	4,607
Vendor	0.06	0.03	1.28	0.51	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	876	876	0.03	0.13	0.06	915
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	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	1.06	0.98	0.79	8.87	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,899	1,899	0.05	0.08	3.38	1,928
Vendor	0.03	0.01	0.53	0.21	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	364	364	0.01	0.05	0.39	380
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	

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.18	0.15	1.62	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	314	314	0.01	0.01	0.56	319
Vendor	< 0.005	< 0.005	0.10	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	60.2	60.2	< 0.005	0.01	0.06	62.9
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

3.19. 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	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.39	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.60	2.40	1.73	22.7	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,744	4,744	0.12	0.20	18.9	4,824	
Vendor	0.02	0.01	0.31	0.13	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	219	219	0.01	0.03	0.54	229	
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	0.14	0.13	0.10	1.17	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	251	251	0.01	0.01	0.45	255	
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.0	12.0	< 0.005	< 0.005	0.01	12.5	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.03	0.02	0.02	0.21	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	41.5	41.5	< 0.005	< 0.005	0.07	42.2	
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.99	1.99	< 0.005	< 0.005	< 0.005	2.08	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

3.21. Architectural Coating (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	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	275	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.41	8.41	< 0.005	< 0.005	—	8.44
Architectural Coatings	—	17.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.39	1.39	< 0.005	< 0.005	—	1.40
Architectural Coatings	—	3.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	2.60	2.40	1.73	22.7	0.00	0.00	0.29	0.29	0.00	0.00	0.00	—	4,744	4,744	0.12	0.20	18.9	4,824
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	0.16	0.15	0.12	1.35	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	288	288	0.01	0.01	0.51	293
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	0.03	0.03	0.02	0.25	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	47.8	47.8	< 0.005	< 0.005	0.09	48.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	84.6	84.6	< 0.005	< 0.005	0.28	86.1
Total	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	84.6	84.6	< 0.005	< 0.005	0.28	86.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	82.0	82.0	< 0.005	< 0.005	0.01	83.4
Total	0.06	0.06	0.05	0.35	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	82.0	82.0	< 0.005	< 0.005	0.01	83.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.01	0.01	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.75	9.75	< 0.005	< 0.005	0.01	9.92
Total	0.01	0.01	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.75	9.75	< 0.005	< 0.005	0.01	9.92

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,539	1,539	0.25	0.03	—	1,554
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	255	255	0.04	< 0.005	—	257
Total	—	—	—	—	—	—	—	—	—	—	—	—	255	255	0.04	< 0.005	—	257

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.11	1.95	0.10	11.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.8	48.8	< 0.005	< 0.005	—	49.0
Total	2.11	9.53	0.10	11.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.8	48.8	< 0.005	< 0.005	—	49.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	7.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipme	0.35	0.32	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.31	7.31	< 0.005	< 0.005	—	7.33
Total	0.35	1.70	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.31	7.31	< 0.005	< 0.005	—	7.33

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

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

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

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

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Total	0.05	0.05	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.01	0.01	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01
Total	0.01	0.01	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	10/30/2026	5/31/2028	5.00	414	—
Site Preparation	Site Preparation	9/30/2023	10/31/2023	5.00	22.0	—
Grading	Grading	11/1/2023	7/30/2024	5.00	195	—
Building Construction	Building Construction	7/31/2024	7/31/2026	5.00	523	—
Paving	Paving	8/1/2026	8/28/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	8/29/2026	9/30/2026	5.00	23.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Skid Steer Loaders	Diesel	Tier 4 Interim	1.00	5.00	85.0	0.37
Demolition	Cranes	Diesel	Tier 4 Interim	1.00	4.00	335	0.29
Demolition	Skid Steer Loaders	Diesel	Tier 4 Interim	1.00	5.00	85.0	0.37
Site Preparation	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	500	0.48
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	6.00	8.00	300	0.40
Grading	Excavators	Diesel	Tier 4 Interim	10.0	8.00	600	0.38
Grading	Forklifts	Diesel	Tier 4 Interim	4.00	8.00	150	0.20
Grading	Rubber Tired Loaders	Diesel	Tier 4 Interim	2.00	8.00	300	0.40
Grading	Graders	Diesel	Tier 4 Interim	6.00	8.00	250	0.41
Grading	Off-Highway Trucks	Diesel	Tier 4 Interim	3.00	8.00	350	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	16.0	8.00	750	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	4.00	8.00	150	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	5.00	8.00	120	0.37
Building Construction	Trenchers	Diesel	Tier 4 Interim	4.00	8.00	250	0.50
Building Construction	Off-Highway Trucks	Diesel	Tier 4 Interim	3.00	8.00	350	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48
Demolition	Excavators	Diesel	Tier 4 Interim	1.00	8.00	700	0.38
Demolition	Concrete/Industrial Saws	Electric	Average	1.00	5.00	85.0	0.73
Demolition	Skid Steer Loaders	Diesel	Tier 4 Interim	2.00	6.00	85.0	0.37

Demolition	Excavators	Diesel	Tier 4 Interim	1.00	8.00	700	0.38
Demolition	Excavators	Diesel	Tier 4 Interim	1.00	8.00	435	0.38
Demolition	Excavators	Diesel	Tier 4 Interim	2.00	8.00	360	0.38
Demolition	Excavators	Diesel	Tier 4 Interim	1.00	8.00	355	0.38
Demolition	Excavators	Diesel	Tier 4 Interim	1.00	4.00	290	0.38
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	4.00	225	0.37
Demolition	Cranes	Diesel	Tier 4 Interim	1.00	4.00	335	0.29
Site Preparation	Graders	Diesel	Tier 4 Interim	6.00	8.00	250	0.41
Site Preparation	Rubber Tired Loaders	Diesel	Tier 4 Interim	2.00	8.00	300	0.36
Site Preparation	Off-Highway Trucks	Diesel	Tier 4 Interim	3.00	8.00	350	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	5.00	8.00	120	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	6.00	8.00	300	0.40
Building Construction	Rubber Tired Loaders	Diesel	Tier 4 Interim	2.00	8.00	300	0.36

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	134	10.8	LDA,LDT1,LDT2
Demolition	Vendor	5.00	6.85	HHDT,MHDT
Demolition	Hauling	32.0	101	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	100	10.8	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	6.85	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	—	HHDT
Grading	—	—	—	—
Grading	Worker	200	10.8	LDA,LDT1,LDT2
Grading	Vendor	30.0	6.85	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	0.00	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	600	10.8	LDA,LDT1,LDT2
Building Construction	Vendor	40.0	6.85	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	600	10.8	LDA,LDT1,LDT2
Paving	Vendor	10.0	6.85	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	600	10.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.85	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	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	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	409,500	136,500	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	134,000	—
Site Preparation	—	—	176	0.00	—
Grading	—	—	1,170	0.00	—
Building Construction	—	—	24.0	0.00	—
Paving	0.00	0.00	0.00	0.00	5.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	5.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	231	204	0.03	< 0.005
2027	231	204	0.03	< 0.005
2028	231	204	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
User Defined Industrial	13.0	0.00	0.00	3,389	105	0.00	0.00	27,266

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	409,500	136,500	—

5.10.3. Landscape Equipment

Season	Unit	Value
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Snow Days	day/yr	0.00
Summer Days	day/yr	330

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)
User Defined Industrial	2,753,533	204	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)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	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
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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
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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
Fire Pump	Diesel	1.00	0.08	30.0	350	0.73

5.16.2. Process Boilers

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	8.70	annual days of extreme heat
Extreme Precipitation	4.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	36.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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

6.2. Initial Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	13.6
AQ-PM	8.43
AQ-DPM	16.6
Drinking Water	44.2
Lead Risk Housing	54.6
Pesticides	61.6
Toxic Releases	11.4
Traffic	40.3
Effect Indicators	—
CleanUp Sites	78.0
Groundwater	35.0
Haz Waste Facilities/Generators	78.4
Impaired Water Bodies	83.0
Solid Waste	59.2
Sensitive Population	—
Asthma	40.0
Cardio-vascular	25.3

Low Birth Weights	98.9
Socioeconomic Factor Indicators	—
Education	26.4
Housing	17.4
Linguistic	—
Poverty	52.1
Unemployment	—

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	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—

Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	75.3
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	0.0
Cognitively Disabled	9.6
Physically Disabled	23.7
Heart Attack ER Admissions	73.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0

Pedestrian Injuries	0.0
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	0.0
SLR Inundation Area	65.9
Children	94.5
Elderly	6.6
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	87.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	54.0
Traffic Density	0.0
Traffic Access	0.0
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	46.0

Healthy Places Index Score for Project Location (b)	—
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
Land Use	Land use changed to reflect information provided by project sponsor.
Construction: Construction Phases	All phases - updated duration to match information provided by project sponsor
Construction: Off-Road Equipment	All phases - updated construction equipment list to match information provided by project sponsor
Operations: Vehicle Data	Weekday trip rate - adjusted to reflect information provided by project sponsor
Operations: Energy Use	Energy use - used electricity intensity defaults for General Light Industry in EDFZ 6 (Central Coast). The buildings housing the batteries are not expected to use any natural gas, as there will be no refrigeration or heating capacity.
Construction: Trips and VMT	Updated trip numbers and trip length to match information provided by the project sponsor.
Construction: Dust From Material Movement	In the data request, water trucks are associated with building construction and are added here to reflect that. Total acres graded for Building Construction was set to 24 to reflect the project acreage
Construction: Paving	Update paved area acreage to reflect information provided by the project sponsor.

Vistra BESS - Tier Mitigated Quarterly Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vistra BESS - Tier Mitigated
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	24.0
Location	35.37488204736745, -120.85921757800375
County	San Luis Obispo
City	Morro Bay
Air District	San Luis Obispo County APCD
Air Basin	South Central Coast
TAZ	3324
EDFZ	6
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Southern California Gas

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
User Defined Industrial	1.00	User Defined Unit	24.0	273,000	0.00	—	—	Buildings housing battery energy storage system

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions

2.1.1. Construction Emissions Compared Against Thresholds

Emissions shown here are not consistent with project assumptions and should not be used for assessment of significance.

Criteria Pollutants (ton/quarter) and GHGs (MT/quarter)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Q1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	0.41	8.95	17.9	0.03	0.07	1.25	1.25	0.07	0.69	0.69	—	3,278	3,278	0.13	0.03	0.26	3,289
Q2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.64	0.64	13.8	27.6	0.05	0.11	1.92	1.92	0.11	1.06	1.06	—	5,056	5,056	0.21	0.04	0.40	5,073
Q3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.64	0.64	13.8	27.6	0.05	0.11	1.92	1.92	0.11	1.06	1.06	—	5,056	5,056	0.21	0.04	0.40	5,073
Q4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	0.39	7.08	13.6	0.07	0.05	0.74	0.74	0.05	0.37	0.37	—	6,779	6,779	0.27	0.05	1.87	6,802
Q5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.61	10.9	21.0	0.11	0.07	1.14	1.14	0.07	0.28	0.28	—	10,456	10,456	0.42	0.08	2.89	10,491
Q6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.61	10.9	21.0	0.11	0.07	1.14	1.14	0.07	0.28	0.28	—	10,456	10,456	0.42	0.08	2.89	10,491
Q7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.61	10.9	21.0	0.11	0.07	1.14	1.14	0.07	0.28	0.28	—	10,456	10,456	0.42	0.08	2.89	10,491
Q8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.61	10.9	21.0	0.11	0.07	1.14	1.14	0.07	0.28	0.28	—	10,456	10,456	0.42	0.08	2.89	10,491
Q9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.61	10.9	21.0	0.11	0.07	1.14	1.14	0.07	0.28	0.28	—	10,456	10,456	0.42	0.08	2.89	10,491

Q10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.61	10.9	21.0	0.11	0.07	1.14	1.14	0.07	0.28	0.28	—	10,456	10,456	0.42	0.08	2.89	10,491
Q11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	0.61	10.9	21.0	0.11	0.07	1.14	1.14	0.07	0.28	0.28	—	10,456	10,456	0.42	0.08	2.89	10,491
Q12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	3.85	4.20	8.07	0.04	0.03	0.44	0.44	0.03	0.11	0.11	—	4,021	4,021	0.16	0.03	1.11	4,035
Q13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.69	4.68	9.30	0.02	0.03	0.94	0.94	0.03	0.14	0.14	—	1,670	1,670	0.07	0.23	1.24	1,675
Q14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.34	7.47	14.8	0.03	0.06	1.49	1.49	0.06	0.23	0.23	—	2,666	2,666	0.11	0.37	1.97	2,675
Q15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.34	7.47	14.8	0.03	0.06	1.49	1.49	0.06	0.23	0.23	—	2,666	2,666	0.11	0.37	1.97	2,675
Q16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.34	7.47	14.8	0.03	0.06	1.49	1.49	0.06	0.23	0.23	—	2,666	2,666	0.11	0.37	1.97	2,675
Q17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.34	7.47	14.8	0.03	0.06	1.49	1.49	0.06	0.23	0.23	—	2,666	2,666	0.11	0.37	1.97	2,675
Q18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.34	7.47	14.8	0.03	0.06	1.49	1.49	0.06	0.23	0.23	—	2,666	2,666	0.11	0.37	1.97	2,675
Q19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.25	5.58	11.1	0.02	0.04	1.12	1.12	0.04	0.17	0.17	—	1,992	1,992	0.08	0.28	1.47	1,999
Quarterly (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.64	3.85	13.8	27.6	0.11	0.11	1.92	1.92	0.11	1.06	1.06	—	10,456	10,456	0.42	0.37	2.89	10,491
Exceeds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	0.00	—	—	—	0.00	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	Yes	—	—	—	Yes	—	—	—	—	—	—	—	—	—	—	—

2.1.2. Construction Quarters

Quarter	Start Date	End Date	Length (days)
Q1	9/30/2023	12/29/2023	91
Q2	12/30/2023	3/29/2024	91
Q3	3/30/2024	6/28/2024	91
Q4	6/29/2024	9/27/2024	91
Q5	9/28/2024	12/27/2024	91
Q6	12/28/2024	3/28/2025	91
Q7	3/29/2025	6/27/2025	91
Q8	6/28/2025	9/26/2025	91
Q9	9/27/2025	12/26/2025	91
Q10	12/27/2025	3/27/2026	91
Q11	3/28/2026	6/26/2026	91
Q12	6/27/2026	9/25/2026	91
Q13	9/26/2026	12/25/2026	91
Q14	12/26/2026	3/26/2027	91
Q15	3/27/2027	6/25/2027	91
Q16	6/26/2027	9/24/2027	91
Q17	9/25/2027	12/24/2027	91
Q18	12/25/2027	3/24/2028	91
Q19	3/25/2028	5/31/2028	68

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (ton/quarter) and GHGs (MT/quarter)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Quarterly	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.09	0.27	0.01	0.49	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	63.7	63.7	0.01	< 0.005	< 0.005	64.3
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