Appendix B

Health Risk Assessment Technical Report and Air Quality Modeling

HEALTH RISK ASSESSMENT

Ramona Opportunity Industrial Project

May 2025

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TABLE OF CONTENTS

List of Tables

List of Figures

EXECUTIVE SUMMARY

A Health Risk Assessment (HRA) must include a detailed statement setting forth mitigation measures, if applicable, to minimize a project's significant environmental effects as required by the City of Sacramento and the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, prospective air quality implications of a project shall be considered to confirm if the project will result in significant impacts on the environment.

This HRA includes relevant information and analyses that address the Toxic Air Contaminants (TAC) implications of the proposed Ramona Opportunity Industrial Project (Project) located in Sacramento, California. The Project's anticipated operations are evaluated to determine whether the Project would:

- Air Quality
    - Expose sensitive receptors to substantial pollutant concentrations?

Air Quality Impacts

Expose sensitive receptors to substantial pollutant concentrations?

Project Construction

Construction-related activities would result in emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., demolition, clearing, grading); paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, DPM is the primary toxic air contaminant of concern. Cancer risk was calculated using the most recent version of the OEHHA guidelines for health risk assessments. TAC emissions associated with the construction of the Project were used to assess impacts to adjacent sensitive receptors. Table 4 shows the estimated DPM emissions from on-site construction equipment considering various construction phases. Table 5 and Table 6 show estimated construction emissions from on-site mobile sources and on-site idling from mobile sources.

Tables 7 and 8 identify the impact of Project construction emissions, considering dispersion modeling, at adjacent sensitive receptors which represent the maximally exposed individuals. Results of the analysis show that TAC emissions at residences adjacent to the Project site (sensitive receptors 2, 3, and 4) would exceed the 10 in one million threshold from construction activities. Implementation of Mitigation Measure AQ-1 would be required to reduce substantial pollutant concentrations during Project construction.

- **Mitigation Measure AQ-1 -** During Project construction, the Project contractor or Project representatives shall ensure that all off-road diesel-powered construction equipment used for grading and building construction meets the CARB Tier 4 emissions standards or equivalent.

Table 9 shows the estimated DPM emissions from on-site construction equipment considering Mitigation Measure AQ-1. Table 10 shows that there is a ***less than significant impact*** from Project construction emissions with implementation of Mitigation Measure AQ-1.

Project Operations

The specific operations of the Project site are unknown at this time as the property developer intends to develop the site and lease the building to interested business(es). Conservative assumptions consistent with typical warehouse uses were utilized, as appropriate, to estimate TACs associated with Project operations. In the event a manufacturing type and/or stationary source emitting business seeks to lease the building, an updated project-specific HRA would be required.

The principal sources or processes from the Project that have the potential to emit various TAC's include diesel emissions from Truck Traffic and Truck Idling. The characteristics of the Project, typical warehouse uses, are not consistent with the land use categories presented in Table 2. However, Vehicle DPM emissions were estimated using emission factors for particulate matter less than 10µm in diameter (PM10) generated with the 2017 version of EMFAC developed by the ARB. EMFAC 2017 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources. EMFAC 2017 incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

For this Project, annual average PM10 emission factors were generated by running EMFAC 2017 for vehicles in Sacramento County. The EMFAC model generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. It was assumed that trucks traveled at 10 miles per hour while performing onsite driving and maneuvering. Emissions estimates for diesel operated vehicles are shown in Tables 11 and 12.

Tables 13 and 14 identify the impact of Project operational emissions, considering dispersion modeling, at adjacent sensitive receptors which represent the maximally exposed individuals. Results of the analysis show that TAC emissions at sensitive receptors adjacent to the Project site would not exceed applicable significant thresholds considering Project operations. TAC emissions generated during Project operations would not expose sensitive receptors to substantial pollutant concentrations. Therefore, mitigation is not warranted since there is a ***less than significant impact*** from Project operational emissions.

1.0 INTRODUCTION

A Health Risk Assessment (HRA) must include a detailed statement setting forth mitigation measures, if applicable, to minimize a project's significant environmental effects as required by the City of Sacramento and the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, prospective air quality implications of a project shall be considered to confirm if the project will result in significant impacts on the environment.

This HRA includes relevant information and analyses that address the Toxic Air Contaminants (TAC) implications of the proposed Ramona Opportunity Industrial Project (Project) located in Sacramento, California. The Project's anticipated operations are evaluated to determine whether the Project would:

- Air Quality
    - Expose sensitive receptors to substantial pollutant concentrations?

Project impacts associated with construction (short-term) operations were examined as it relates to development of the Project. The Project has the potential to result in short-term air quality impacts due to construction activity. Air quality impacts associated with construction represent a short-term impact on ambient air quality levels and include activities such as site preparation, grading, and other construction-related activities. Long-Term impacts relate to the operation of the Project and include air quality emissions generated from site operations and increased traffic (diesel) in the study area. TACs associated with the operation of the Project were also evaluated to determine if the Project will result in significant impacts on the environment.

1.1 Project Description

This HRA evaluates TAC impacts associated with the Ramona Opportunity Industrial Project located in Sacramento, CA. Located approximately one mile southeast of California State University, Sacramento, the Project site is located adjacent to Ramona Avenue at the terminus of Cucamonga Avenue. The Project seeks to develop a combo warehouse/two-story office building on the property consistent with the underlying manufacturing zoning. The proposed warehouse component includes a gross square footage of 31,905 sq. ft. and the office component includes a gross square footage of 35,707 sq. ft. The Project site, designated as Employment Center Mid Rise in the City of Sacramento General Plan, encompasses approximately 5.75 acres with a potion of the site to be developed in the future. Figures 1 and 2 provide the regional and local context of the Project. Figure 3 provides the Project Site Plan.

The specific operations of the Project site are unknown at this time as the property developer intends to develop the site and lease the building to interested business(es). Conservative assumptions consistent with typical warehouse uses were utilized, as appropriate, to estimate TACs associated with the Project. In the event a manufacturing type and/or stationary source emitting business seeks to lease the building, an updated project-specific HRA would be required.

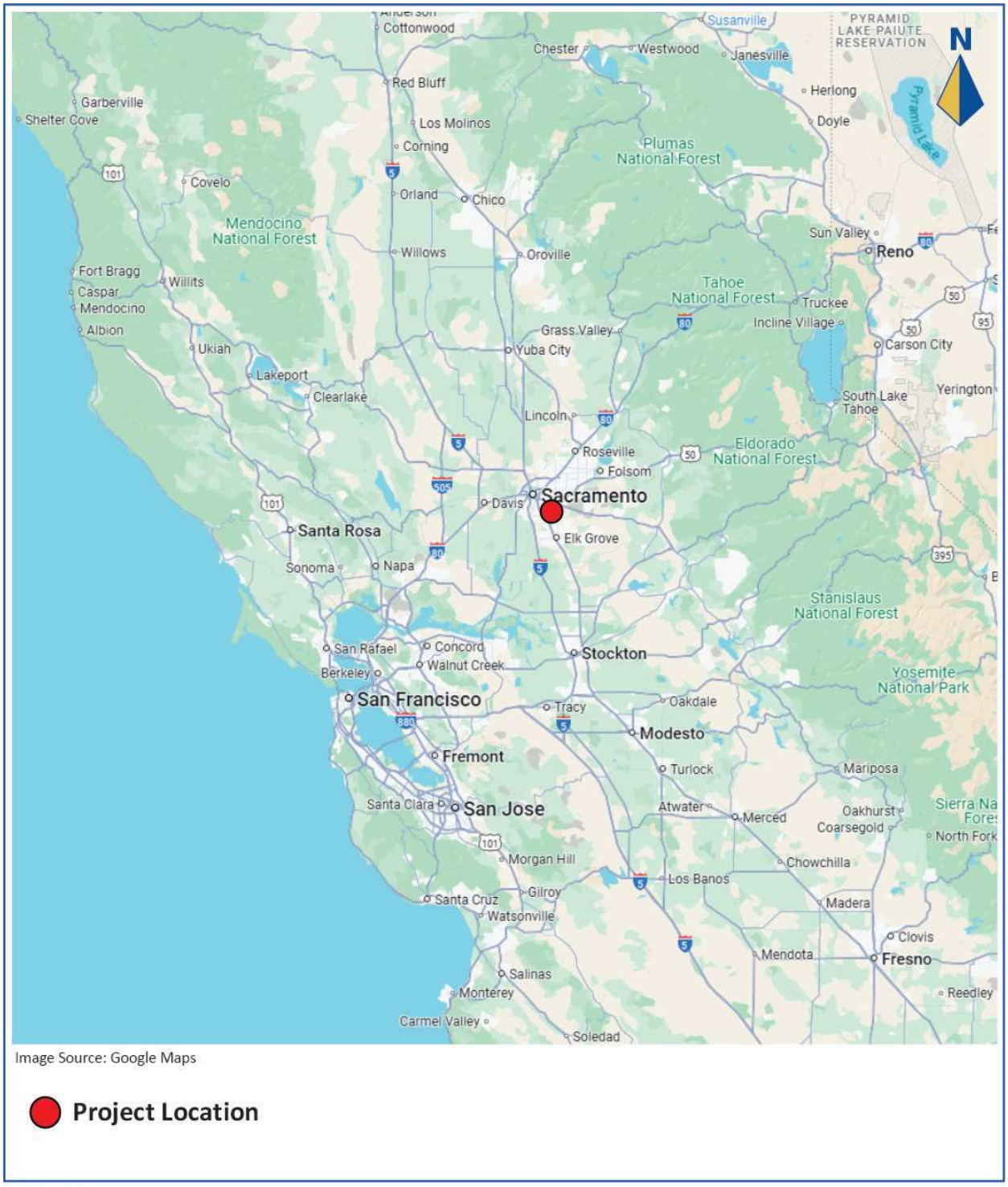

Image Source: Google Maps

FIGURE 1
Regional Location

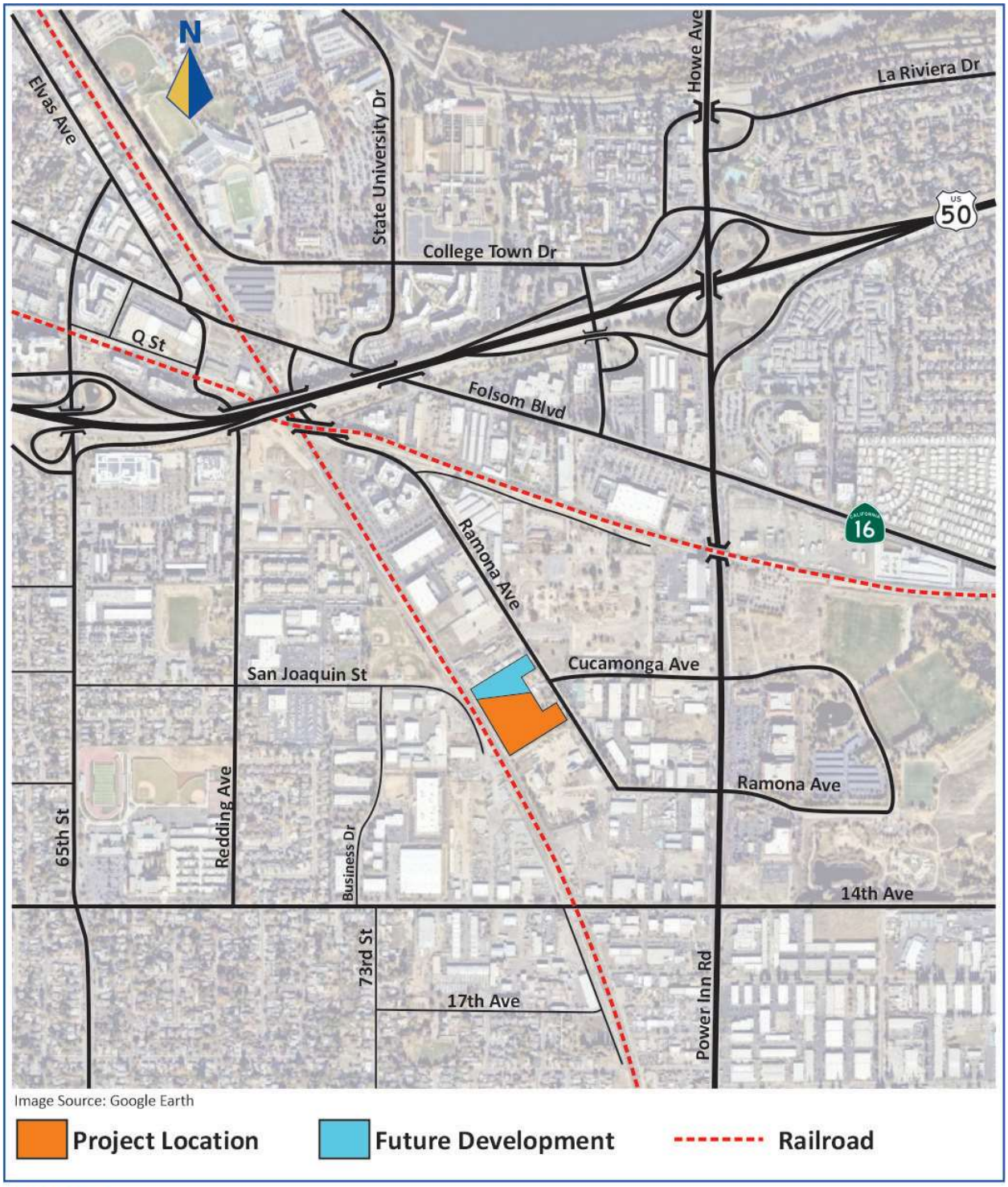

FIGURE 2
Project Location

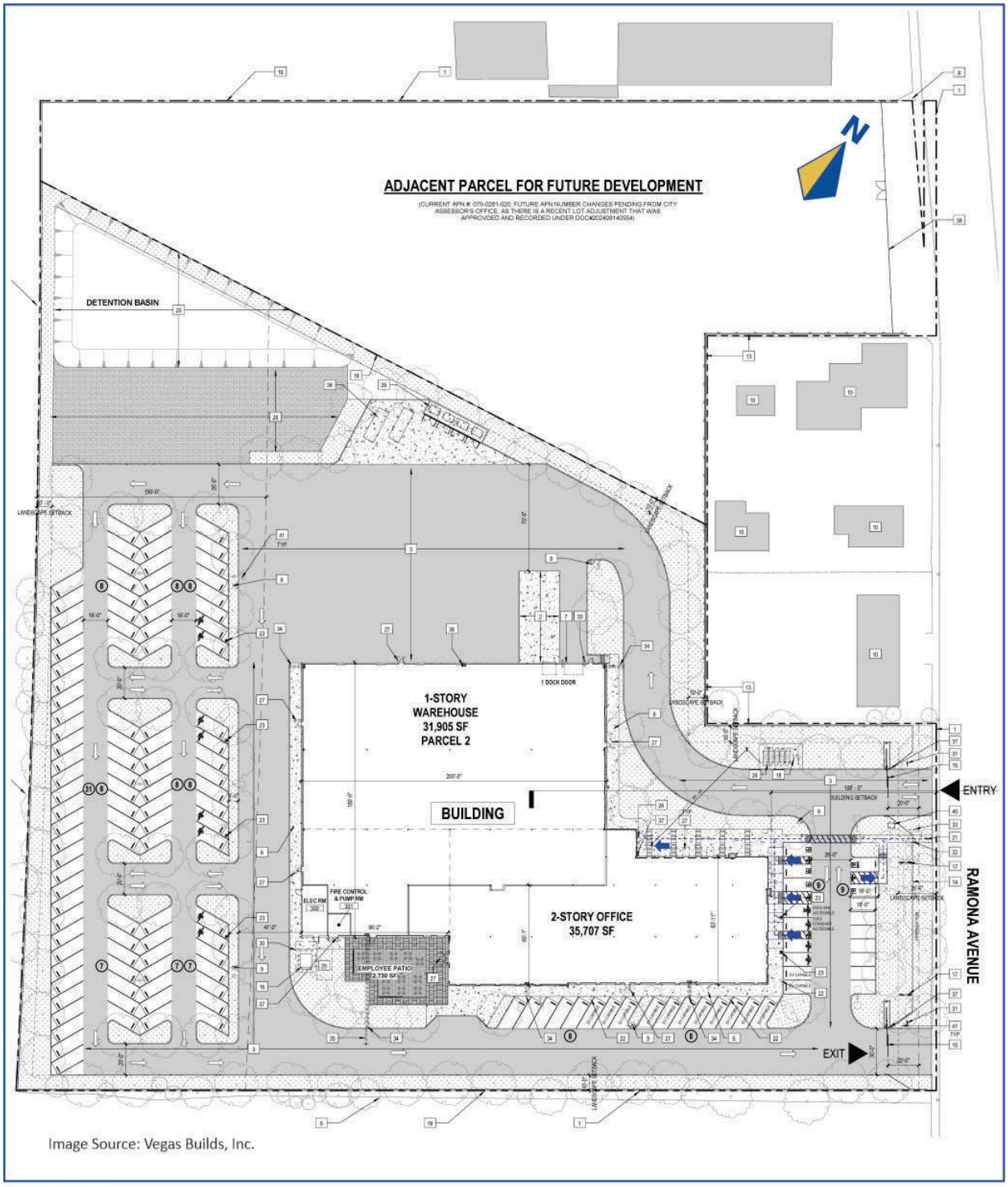

FIGURE 3
Project Site Plan

2.0 Air Quality

Air quality in a region is determined by the region's topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the Sacramento Valley Air Basin, which encompasses the Project site, pursuant to the regulatory authority of the Sacramento Metropolitan Air Quality Management District (SMAQMD).

2.1 Climate and Meteorology

Air quality is affected by the rate and location of pollutant emissions and by climatic conditions that influence the movement and dispersion of pollutants. Atmospheric conditions, such as wind speed, wind direction and air temperature gradients, along with local and regional topography, mediate the relationship between air pollutant emissions and air quality. As noted above, the Project is located within the Sacramento Valley Air Basin, which includes Butte, Colusa, Glenn, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yola, and Yuba counties.

The Sacramento Valley Air Basin is approximately 215 miles long and 100 miles in width and is bordered by the Coast Range Mountains on the west and the Cascade Range Mountains on the east. The Coast Range and Cascade Range Mountains act as a barrier to the east and west and block airflow in the basin. Weak airflow caused by these topographical factors is vertically constrained by high atmospheric pressure above the Valley. The Sacramento Valley Air Basin is therefore vulnerable to pollutant buildup over time.

The Sacramento Valley Air Basin has a Mediterranean climate, which is characterized by hot, dry summers and mild, wet winters. The Sacramento Valley Air Basin offers ideal ozone generation conditions given an average of 265 sunny days per year. Precipitation and fog in the winter create optimal circumstances for particulate matter generation, even though they shield sunlight and reduce ozone levels.

2.2 Sources of Air Pollution

Air pollutant emissions in the Sacramento Valley Air Basin are generally caused by man-made sources, which encompass stationary and mobile sources. Stationary sources include point sources which are generally identified by an exhaust vent or stack (i.e., boilers). Area sources, such as residential and commercial water heaters, lawn mowers, and agricultural fields, are also categorized as stationary sources. Emissions from motor vehicles are characterized as mobile sources and include on-road (i.e., automobiles, trucks) and off-road (i.e., aircrafts, ships, trains) sources. Air pollutants can also be generated by natural means, such as the suspending of fine dust particles via high winds.

2.3 Toxic Air Contaminants

TACs refer to a broad category of air pollutants that could result in an increase in fatalities or serious illnesses, potential risk to human health, or any combination of these. TACs are both organic and inorganic chemical substances that can be released from a range of everyday sources, such as gasoline stations, automobiles, dry cleaners, industrial operations, painting operations, and research and educational

facilities. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. In April of 1993, the California Air Resources Board (CARB) identified 189 federal Hazardous Air Pollutants (HAPs) as TACs per Assembly Bill 2728 and approved the amended TACs list which are listed in Table 1. CARB has identified over 200 substances and groups of substances as TACs as documented in CARB's TAC Identification Reports.

Most of the estimated health risk from TACs, according to CARB's *California Almanac of Emissions and Air Quality* (2005), can be attributable to a small number of compounds. The most significant of which is Particulate Matter (PM) from diesel-fueled engines, which is known as diesel particulate matter (DPM). Diesel exhaust has hundreds of different gaseous and particulate components, many of which are harmful, and have been classified as a human carcinogen. Diesel particles are so small that they penetrate deep into the lungs. According to studies, diesel PM concentrations are significantly greater near busy intersections and roads. Heavy-duty vehicles and off-road construction equipment are main sources of diesel-related emissions. The CARB's *Air Quality and Land Use Handbook* (2005) provides recommendations for siting new sensitive land uses within proximity to facilities known to generate TACs, as depicted in Table 2.

Acute diesel exhaust exposure may irritate the eyes, nose, throat, and lungs, as well as certain neurological consequences like lightheadedness. A cough or nausea may also be caused by acute exposure, which can potentially make asthma worse. Experimental animal inhalation studies with chronic exposure have revealed a variety of dose-dependent lung cellular alterations, lung inflammation, and immunological consequences from diesel exhaust. There is substantial data, based on both human and laboratory studies, showing diesel exhaust is almost certainly carcinogenic. Studies on human epidemiology show a link between occupational exposure to diesel exhaust and a higher incidence of lung cancer.

TABLE 1
FEDERAL HAZARDOUS AIR POLLUTANTS (HAPS)
CLASSIFIED AS TOXIC AIR CONTAMINANTS (TACS)

Acetaldehyde	Dimethyl carbamoyl chloride	Parathion
Acetamide	Dimethyl formamide	Pentachloronitrobenzene (Quintobenzene)
Acetonitrile	1,1-Dimethyl hydrazine	Pentachlorophenol
Acetophenone	Dimethyl phthalate	Phenol
2-Acetylaminofluorene	Dimethyl sulfate	p-Phenylenediamine
Acrolein	4,6-Dinitro-o-cresol, and salts	Phosgene
Acrylamide	2,4-Dinitrophenol	Phosphine
Acrylic acid	2,4-Dinitrotoluene	Phosphorus
Acrylonitrile	1,4-Dioxane (1,4-Diethyleneoxide)	Phthalic anhydride
Allyl chloride	1,2-Diphenylhydrazine	Polychlorinated biphenyls (Aroclors)
4-Aminobiphenyl	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	1,3-Propane sultone
Aniline	1,2-Epoxybutane	beta-Propiolactone
o-Anisidine	Ethyl acrylate	Propionaldehyde
Asbestos	Ethyl benzene	Propoxur (Baygon)
Benzene (including benzene from gasoline)	Ethyl carbamate (Urethane)	Prophylene dichloride (1,2-Dichloropropane)
Benzidine	Ethyl chloride (Chloroethane)	Propylene oxide
Benzotrichloride	Ethylene dibromide (Dibromoethane)	1,2-Propylenimine (2-Methylaziridine)
Benzyl chloride	Ethylene dichloride (1,2-Dichloroethane)	Quinoline
Biphenyl	Ethylene glycol	Quinone
Bis (2-ethylhexyl) phthalate (DEHP)	Ethylene imine (Aziridine)	Styrene
Bis (chloromethyl) ether	Ethylene oxide	Styrene oxide
Bromoform	Ethylene thiourea	2,3,7,8-Tetrachlorodibenzo-p-dioxin
1,3-Butadiene	Ethylidene dichloride (1,1-Dichloroethane)	1,1,2,2-Tetrachloroethane
Calcium cyanamide	Formaldehyde	Tetrachloroethylene (Perchloroethylene)
Caprolactam	Heptachlor	Titanium tetrachloride
Captan	Hexachlorobenzene	Toluene
Carbaryl	Hexachlorobutadiene	2,4-Toluene diamine
Carbon disulfide	Hexachlorocyclopentadiene	2,4-Toluene diisocyanate
Carbon tetrachloride	Hexachloroethane	o-Toluidine
Carbonyl sulfide	Hexamethylene-1,6-diisocyanate	Toxaphene (chlorinated camphene)
Catechol	Hexamethylphosphoramide	1,2,4-Trichlorobenzene
Chloramben	Hexane	1,1,2-Trichloroethane
Chlordane	Hydrazine	Trichloroethylene
Chlorine	Hydrochloric acid	2,4,5-Trichlorophenol
Chloroacetic acid	Hydrogen fluoride (Hydrofluoric acid)	2,4,6-Trichlorophenol
2-Chloroacetophenone	Hydroquinone	Triethylamine
Chlorobenzene	Isophorone	Trifluralin
Chlorobenzilate	Lindane (all isomers)	2,2,4-Trimethylpentane
Chloroform	Maleic anhydride	Vinyl acetate
Chloromethyl methyl ether	Methanol	Vinyl bromide
Chloroprene	Methoxychlor	Vinyl chloride
Cresols/Cresylic acid (isomers and mixture)	Methyl bromide (Bromomethane)	Vinylidene chloride (1,1-Dichloroethylene)
o-Cresol	Methyl chloride (Chloromethane)	Xylenes (isomers and mixture)
m-Cresol	Methyl chloroform (1,1,1-Trichloroethane)	o-Xylenes
p-Cresol	Methyl ethyl ketone (2-Butanone)	m-Xylenes
Cumene	Methyl hydrazine	p-Xylenes
2,4-D, salts and esters	Methyl iodide (Iodomethane)	Antimony Compounds
DDE	Methyl isobutyl ketone (Hexone)	Arsenic Compounds (inorganic including arsine)
Diazomethane	Methyl isocyanate	Beryllium Compounds
Dibenzofurans	Methyl methacrylate	Cadmium Compounds
1,2-Dibromo-3-chloropropane	Methyl tert butyl ether	Chromium Compounds
Dibutylphthalate	4,4-Methylene bis(2-chloroaniline)	Cobalt Compounds
1,4-Dichlorobenzene (p)	Methylene chloride (Dichloromethane)	Coke Oven Emissions
3,3-Dichlorobenzidene	Methylene diphenyl diisocyanate (MDI)	Cyanide Compounds [FN1]
Dichloroethyl ether (Bis (2-chloroethyl) ether)	4,4-Methylenedianiline	Glycol ethers [FN2]
1,3-Dichloropropene	Naphthalene	Lead Compounds
Dichlorvos	Nitrobenzene	Manganese Compounds
Diethanolamine	4-Nitrobiphenyl	Mercury Compounds
N,N-Diethyl aniline (N,N-Dimethylaniline)	4-Nitrophenol	Fine mineral fibers [FN3]
Diethyl sulfate	2-Nitropropane	Nickel Compounds
3,3-Dimethoxybenzidine	N-Nitroso-N-methylurea	Polycyclic Organic Matter [FN4]
Dimethyl aminoazobenzene	N-Nitrosodimethylamine	Radionuclides (including radon) [FN5]
3,3-Dimethyl benzidine	N-Nitrosomorpholine	Selenium Compounds

Source: CARB Identified Toxic Air Contaminants (https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants), 2025

TABLE 2
RECOMMENDATIONS ON SITING NEW SENSITIVE LAND USES SUCH AS RESIDENCES, SCHOOLS, DAYCARE CENTERS, PLAYGROUNDS, OR MEDICAL FACILITIES*

SOURCE CATEGORY	ADVISORY RECOMMENDATIONS
Freeways and High-Traffic Roads[1]	- Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	- Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). - Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	- Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. - Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	- Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	- Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	- Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	- Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. - Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	- Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

1: The recommendation to avoid siting new sensitive land uses within 500 feet of a freeway was identified in CARB's Air Quality and Land Use Handbook published in 2005. CARB recently published a technical advisory to the Air Quality and Land Use Handbook indicating that new research has demonstrated promising strategies to reduce pollution exposure along transportation corridors.

*Notes:
- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.
- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in the ARB Handbook: Air Quality and Land Use Handbook: A Community Health Perspective.

Source: CARB's Air Quality and Land Use Handbook

3.0 Regulatory Setting

3.1 Federal

The US Environmental Protection Agency (EPA) is the federal agency with significant influence on air quality policy and initiatives. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) describing a strategy for the means to attain the federal standards for ozone and particulate matter. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs.

3.1.1 Clean Air Act

The federal Clean Air Act, as amended, establishes the national ambient air quality standards (NAAQS) for several pollutants. These standards are divided into primary standards and secondary standards. Primary standards are designed to protect public health, and secondary standards are intended to protect public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage. The Clean Air Act requires that regional plans be prepared for nonattainment areas that illustrate how the federal air quality standards could be met.

Regulation of TACs is achieved through federal and state controls on individual sources. The 1990 Clean Air Act Amendments offered a comprehensive plan for achieving significant reduction in both mobile and stationary source emissions of certain designated hazardous air pollutants, with a goal of achieving the EPA's one in 1 million cancer risk from TACs.

3.1.2 1990 Amendments to the Federal Clean Air Act

The 1990 amendments to the federal Clean Air Act included a provision to address air toxics. Under Title III of the federal Clean Air Act, the U.S. EPA establishes and enforces National Emission Standards for Hazardous Air Pollutants, which are national uniform standards oriented toward controlling particular hazardous air pollutants. Section 112(b) of the federal Clean Air Act identifies 189 "Air Toxics" (hazardous air pollutants), directs U.S. EPA to identify sources of the 189 pollutants, and establishes a 10-year time period for the U.S. EPA to issue technology-based emissions standards for each source category. Title III of the federal Clean Air Act provides for a second phase under which the U.S. EPA is to assess residual risk after the implementation of the first phase of standards and impose new standards, when appropriate, to protect public health.

3.1.3 Energy Policy Act of 1992

The Energy Policy Act of 1992 (EPAct) was established in order to diminish the nation's reliance on foreign oil and enhance air quality. The EPAct contains a number of sections that are designed to create an inventory of alternative fuel vehicles (AFVs) in sizable, centrally-fueled fleets in urban areas. A percentage of light duty AFVs that can run on alternative fuels must be purchased by certain federal, state, local, and private fleets each year under the terms of EPAct. The EPAct also contains financial incentives. Businesses and individuals will be able to use federal tax deductions to offset the increased cost of AFVs.

3.2 State

The California Air Resources Board (CARB) sets the laws and regulations for air quality on the state level. In this capacity, CARB conducts research and sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB also establishes emissions standards for motor vehicles sold in California, consumer products (i.e., hairspray, aerosol paints), and various types of commercial equipment.

3.2.1 California Clean Air Act

The California Clean Air Act (CCAA) was enacted in 1988 (California Health & Safety Code Section 39000 et seq.) and amended in 1992. The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. Air basins or areas that exceed the CAAQS are designated non-attainment until compliance is disclosed in an attainment plan. In California, CARB is responsible for meeting the State requirements of the federal CAA, administering the California CAA, and establishing the CAAQS. The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

3.2.2 Tanner Air Toxics Act

California regulates TACs through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act establishes a procedure for CARB to designate substances as TACs, which includes research, public participation, and scientific peer review. CARB has identified over 21 TACs and adopted the EPA's list of HAPs (see Table 1) as TACs. Once a TAC is identified, CARB develops an Airborne Toxics Control Measure (ATCM) for sources emitting that specific TAC. If a substance has a safe threshold with no toxic effects, the control measure aims to reduce exposure below that level. If no safe threshold exists, the measure must use Best Available Control Technology (BACT) to minimize emissions.

AB 2588 mandates that facilities emitting toxic substances above a certain level must prepare a toxic-emission inventory, conduct a risk assessment if emissions are significant, inform the public about

significant risk levels, and develop and implement measures to reduce risk. CARB has implemented diesel exhaust control measures and stricter emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators).

These rules and standards include:

- Stricter emission standards for new urban bus engines starting with the 2002 models.
- Zero-emission bus requirements for transit agencies.
- Reporting requirements to show compliance with the urban transit bus fleet rule.

3.3 Regional

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within the City of Sacramento and throughout the Sacramento Valley Air Basin. The SMAQMD also has responsibility for monitoring air quality and setting and enforcing limits for source emissions. CARB is the agency with the legal responsibility for regulating mobile source emissions. The SMAQMD is precluded from such activities under State law.

The SMAQMD has developed plans to attain State and Federal standards for ozone and particulate matter. In addition, the SMAQMD monitors outdoor air pollution in Sacramento County via several air quality monitoring stations across the county. Monitoring stations supply crucial data for public health protection, compliance with air quality standards, and research support. SMAQMD conducted the Sacramento Traffic-Related Toxic Pollution Study to monitor air pollution and address community concerns about traffic-related pollutants. The project expanded air quality monitoring to include year-long, high-resolution measurements of air toxics, black carbon, and particulate matter at several community sites. The data quantified risk, assessed source contributions, and improved the community emissions inventory. Funding came from the EPA Air Toxics Monitoring Grant.

3.3.1 Rule 211 MACT at Major Sources of Hazardous Air Pollutants

The purpose of Rule 211 is to require the installation of maximum achievable control technology (MACT) at any constructed or reconstructed major source of HAPs after January 1, 1999. This rule applies to all owners or operators who construct or reconstruct a major HAP source unless exempt under Section 110.

3.3.2 Rule 403 Fugitive Dust

Rule 403 aims to regulate operations that periodically cause fugitive dust emissions into the atmosphere. This rule does not apply to emissions from agricultural operations, reclaimed land for agriculture, or public unpaved roads (excluding industrial or commercial facilities). A person must take reasonable steps to prevent fugitive dust emissions from escaping beyond the property line during construction, handling, storage, wrecking, excavation, grading, land clearing, or solid waste disposal activities. These precautions include, but are not limited to:

- Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land;
- Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts;
- Other means approved by the Air Pollution Control Officer.

Regulation of TACs is achieved through federal and state controls on individual sources. The 1990 Clean Air Act Amendments offered a comprehensive plan for achieving significant reduction in both mobile and stationary source emissions of certain designated HAPs, with a goal of achieving the EPA's one in 1 million cancer risk from TACs.

3.4 Local

3.4.1 City of Sacramento 2040 General Plan

The Environmental Resources and Constraints Element of the City of Sacramento's 2040 General Plan provides air quality guidelines for Sacramento and establishes the following goals and policies that would be applicable to the Project:

- **Goal ERC-4** – Collaborative action to address air pollution in Sacramento.
    - **Policy ERC-4.3 – Project Design:** The City shall promote the incorporation of new technologies, materials, and design and construction techniques in private development projects that minimize air pollution, noise, excess heat, and other forms of pollution and its impacts.
    - **Policy ERC-4.4 – Sensitive Uses:** The City shall consult, as appropriate, with the SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants, and will impose conditions, as appropriate, on projects to protect public health and safety.
    - **Policy ERC-4.5 – Construction Emissions:** The City shall ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate measures and best practices. Refer to Basic Construction Emissions Control Practices (BMPs) recommended by the SMAQMD.

4.0 Existing Conditions

As noted above, the Project is located in the Sacramento Valley Air Basin which encompasses the Project study area and Sacramento County. The SMAQMD is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within Sacramento County. Sonoma Technology, under contract with the SMAQMD, prepared the *Quantification of Local-Scale Benzene and Other Mobile Source Air Toxics in Sacramento's Communities* report (December 2024) which focused on air pollution monitoring in South Sacramento-Florin. As noted in the report, previous studies show that mobile sources are the main source of air toxics emissions in Sacramento. Table 3 provides the Phase 2 air monitoring data summary at six (6) sites within the South Sacramento-Florin area. The monitoring sites, depicted in Figure 4, are located approximately 2.8 to 6.4 miles south of the Project site.

The *Quantification of Local-Scale Benzene and Other Mobile Source Air Toxics in Sacramento's Communities* report indicated that the average arsenic, nickel, acetaldehyde, and benzene concentrations at the monitoring sites depicted in Figure 4, were below the California Office of Environmental Health Hazard Assessment (OEHHA) chronic inhalation noncancer reference exposure level (REL) (0.015, 0.09, 140, and 3 µg/m^3, respectively). The average lead concentration was below the National Ambient Air Quality Standards (NAAQS) of 0.15 µg/m^3. OEHHA does not have a cancer threshold for manganese but the results of the air quality monitoring show that average concentrations were below the noncancer chronic REL (0.09 µg/m^3).

TABLE 3
AMBIENT AIR QUALITY EMISSIONS

Monitoring Site	Desciption	Pollutant						
		Arsenic Mean, µg/m^3	Lead Mean, µg/m^3	Nickel Mean, µg/m^3	Manganese Mean, µg/m^3	Acetaldehyde Mean, µg/m^3	Benzene Mean, µg/m^3	Black Carbon Mean, µg/m^3
Sump 50	Residential	0.0005	0.0019	0.0005	0.0026	9.55	0.79	0.72
Station 56	Traffic/Industrial	0.0005	0.0027	0.0004	0.0019	11.85	0.85	0.54
Florin	Residential	0.0006	0.0023	0.0005	0.0036	11.20	0.81	0.27
VFW	Industrial	0.0006	0.0029	0.0006	0.0039	9.99	0.86	0.36
Impact Church	Traffic/Commercial	0.0006	0.0022	0.0005	0.0026	12.38	0.8	0.78
CRC	Residential	0.0006	0.0024	0.0004	0.0020	8.44	0.79	0.39
California 2019 (Annual)		0.0011	0.0045	0.0040	0.0224	5.26 [a]	--	--

Source: Sonoma Technology, Quantification of Local-Scale Benzene and Other Mobile Source Air Toxics in Sacramento's Communities report (December 2024)

a: Annual Average for Los Angeles between January 2020 and December 2021, as calculated from data in the EPA AQS database.

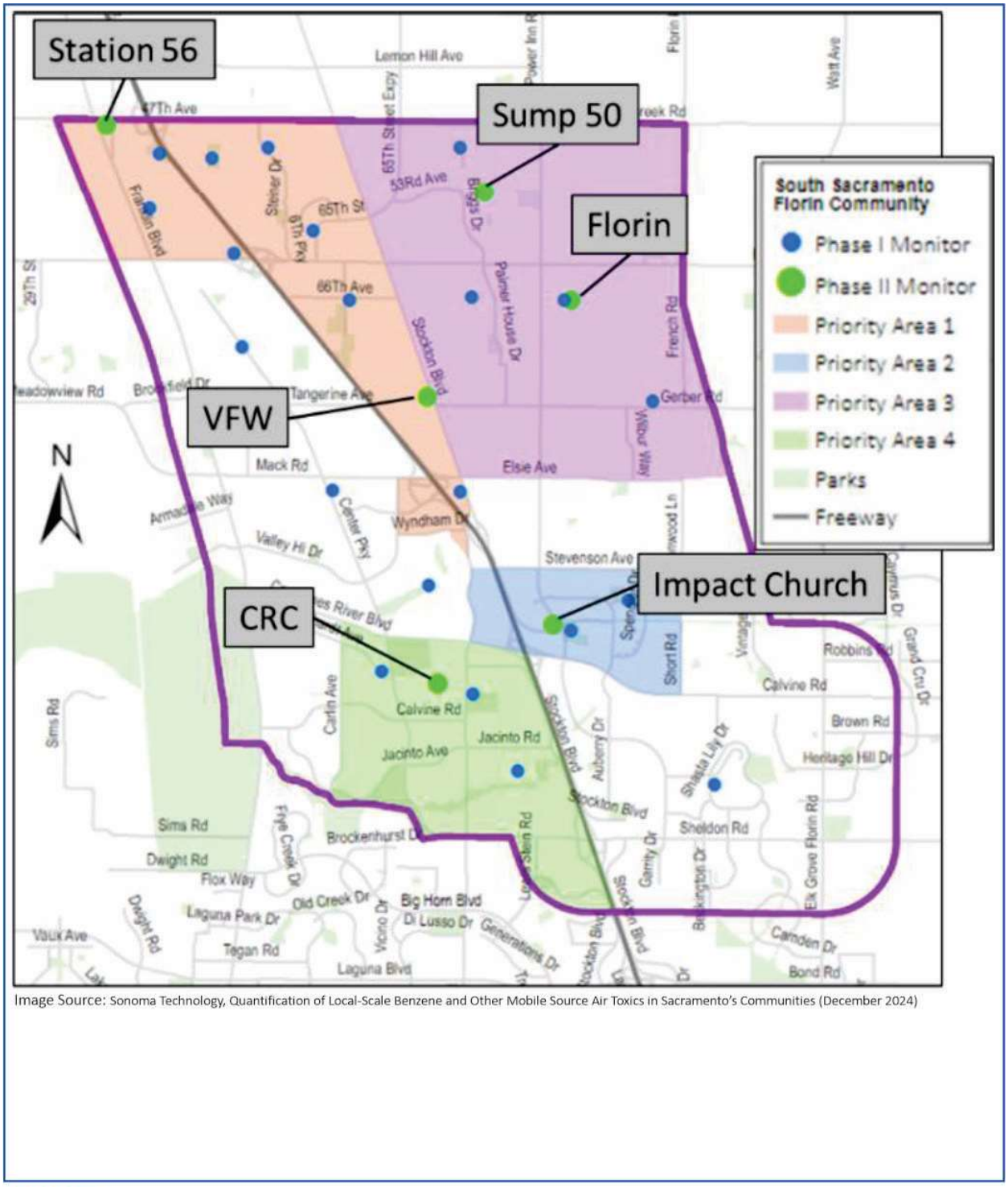

Image Source: Sonoma Technology, Quantification of Local-Scale Benzene and Other Mobile Source Air Toxics in Sacramento's Communities (December 2024)

FIGURE 4
Air Quality Monitoring Sites

5.0 PROJECT RELATED AIR QUALITY IMPACTS

A field investigation was conducted to identify land uses that could be subject to operational and construction impacts from the proposed Project. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, and parks. Figure 5 depicts sensitive receptors in the Project study area. There are existing single-family residences, open space (park), and industrial uses adjacent to the Project site. There are three (3) single-family residences located between 75-100 feet east of the Project boundary. The CEQA Guidelines, Appendix G, are used to assess the potential significance of Project impacts pursuant to local General Plan policies, Municipal Code standards, or applicable standards of other agencies. Under CEQA, air quality impacts would be considered significant if the project would:

- Air Quality
    - Expose sensitive receptors to substantial pollutant concentrations?

5.1 Thresholds of Significance

The SMAQMD is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within Sacramento County. According to the SMAQMD's *Guide To Air Quality Assessment in Sacramento County*, revised in April 2021, a new stationary source of TACs would not be granted authority to construct or permit to operate if it resulted in a cancer risk greater than 10.0 in one million at any off-site receptor, or if it led to an off-site ground-level concentration of non-carcinogenic TACs that would result in a Hazard Index exceeding 1.0. These screening criteria can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA.

Exposure to various TAC's primarily occurs through inhalation. Cancer and non-cancer health risks are related to the exposure concentration of TACs that will be generated on the Project site. The ambient concentration of TACs at the Project site is influenced by factors such as the emission rate, the distance from the emission source, the local wind speed and direction, the local topography, the land use, etc.

5.1.1 Cancer Risk

Cancer risk is the lifetime probability of developing cancer from exposure to a carcinogen, usually expressed as chances per million. Exposure can occur through direct inhalation or other pathways. To estimate cancer risk from inhalation, the inhalation dose (mg/kg-day) is multiplied by the inhalation cancer potency factor [(mg/kg/day)-1].

Particulate-bound pollutants can also be indirectly absorbed through soil ingestion or skin contact. Other pathways include eating crops grown in contaminated soil and transmission of pollutants to infants via breast milk. Non-inhalation cancer risk is determined using cancer toxicity factors and exposure assumptions.

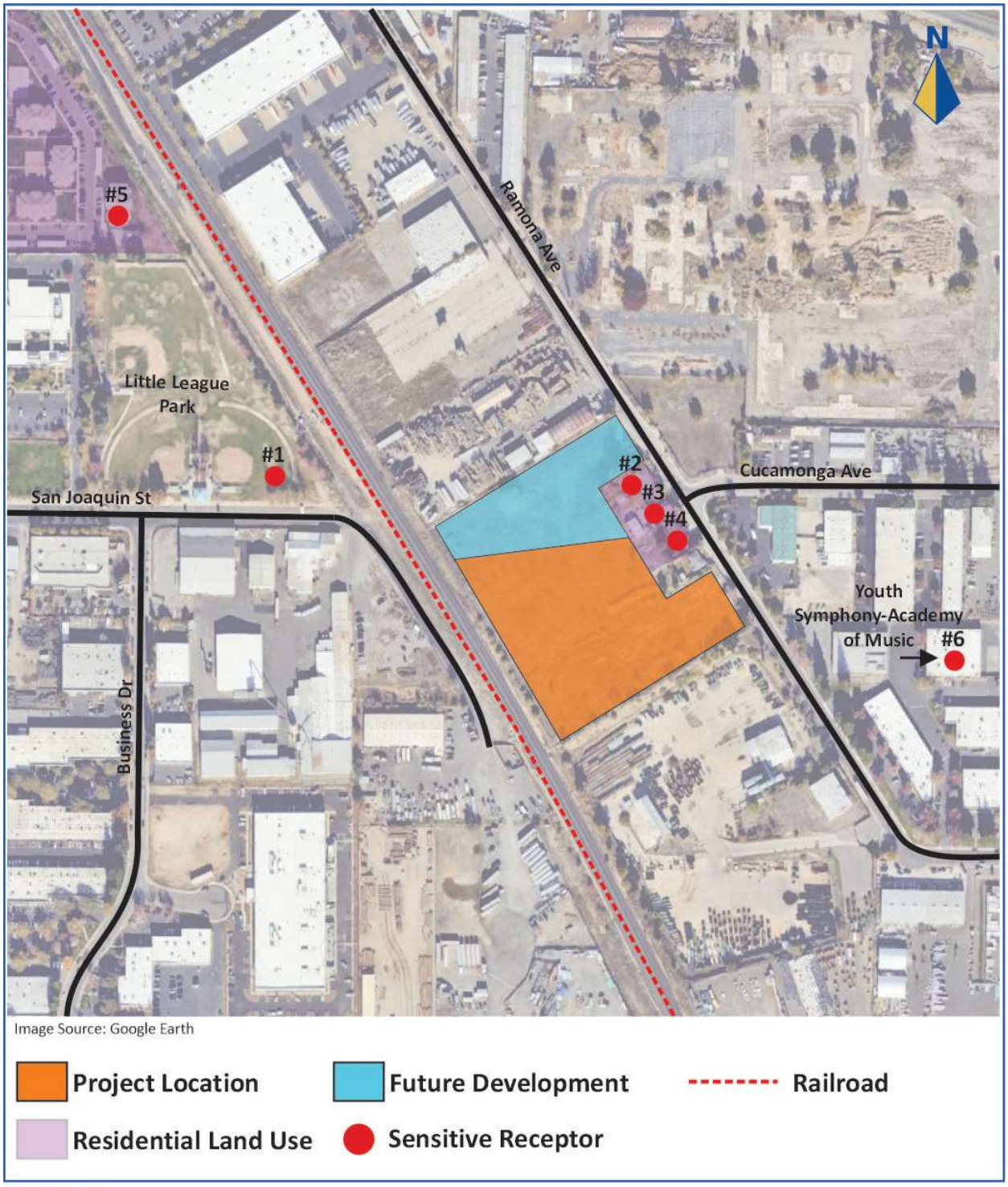

FIGURE 5
Sensitive Receptors

5.1.2 Non-Cancer Risk

Non-cancer health risk refers to both acute (short-term) and chronic (long-term) adverse health effects other than cancer that may be associated with exposure to air toxics. The commonly used regulatory metric for assessing non-cancer effects is the hazard index (HI), which is the ratio of the estimated exposure level of an air toxic compound to a scientifically derived reference exposure level (REL) for the same compound. RELs generally represent the highest exposure level where no adverse effect has been observed or the lowest exposure level where the onset of an adverse effect has been observed, including a safety factor ranging from 10 to 1000, depending on the source and quality of the scientific data.

If the reported concentration or dose of a given chemical is less than its REL, then the hazard index will be less than 1.0. When more than one chemical is considered, it is assumed that the effects are additive provided the associated chemicals are expected to have an adverse impact on the same target organ system (respiratory system, liver, etc). Thus, chemical-specific hazard indices are summed to arrive at a hazard index for each target organ. For any organ system, a total hazard index exceeding 1.0 indicates a potential health effect.

5.2 Estimate of Toxic Emissions

Air quality impacts were assessed in accordance with methodologies recommended by the SMAQMD and CARB. Project TAC emissions were estimated using the construction phase(s) and construction equipment schedule from the California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. The Emission Factor model (EMFAC), developed by CARB, was also used in the development of Project TAC emissions.

5.2.1 Project Construction

Construction-related activities would result in emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., demolition, clearing, grading); paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, DPM is the primary toxic air contaminant of concern. Cancer risk was calculated using the most recent version of the OEHHA guidelines for health risk assessments. TAC emissions associated with the construction of the Project were used to assess impacts to adjacent sensitive receptors as shown in Figure 5. It should be noted that emissions of diesel PM would be generated from different locations on the Project site rather than in a single location. Table 4 shows the estimated DPM emissions from on-site construction equipment considering various construction phases. Table 5 and Table 6 show estimated construction emissions from on-site mobile sources and on-site idling from mobile sources.

Tables 7 and 8 identify the impact of Project construction emissions, considering dispersion modeling, at adjacent sensitive receptors which represent the maximally exposed individuals. Results of the analysis show that TAC emissions at residences adjacent to the Project site (sensitive receptors 2, 3, and 4) would

exceed the 10 in one million threshold from construction activities. Implementation of Mitigation Measure AQ-1 would be required to reduce substantial pollutant concentrations during Project construction.

- **Mitigation Measure AQ-1 -** During Project construction, the Project contractor or Project representatives shall ensure that all off-road diesel-powered construction equipment used for grading and building construction meets the CARB Tier 4 emissions standards or equivalent.

Table 9 shows the estimated DPM emissions from on-site construction equipment considering Mitigation Measure AQ-1. Table 10 shows that there is a ***less than significant impact*** from Project construction emissions with implementation of Mitigation Measure AQ-1.

TABLE 4
ON-SITE EQUIPMENT CONSTRUCTION EMISSIONS

Scenario	Construction Phase	Equipment Type	Quantity	HP	Daily Operation (hrs/day)	Work Days (per phase)	Total Operation Hours (hrs)	Load Factor	Emission Factor (g/hp-hr)	Annual Emission Estimate (lbs/yr)	Normalized Hourly Emission Estimate (lbs/hr)
Project Construction	Site Preparation	Rubber Tired Dozers	3	367	8	5	120	0.40	0.16	6.17	0.05146
	Site Preparation	Tractors/Loaders/Backhoes	4	84	8	5	160	0.37	0.08	0.84	0.00528
	Grading	Excavators	1	36	8	15	120	0.38	0.07	0.27	0.00223
	Grading	Graders	1	148	8	15	120	0.41	0.16	2.55	0.02127
	Grading	Rubber Tired Dozers	1	367	8	15	120	0.40	0.15	5.98	0.04984
	Grading	Tractors/Loaders/Backhoes	3	84	8	15	360	0.37	0.08	1.90	0.00528
	Building Construction	Cranes	1	367	7	195	1,365	0.29	0.08	24.66	0.01807
	Building Construction	Forklifts	3	82	8	195	4,680	0.20	0.12	20.90	0.00447
	Building Construction	Tractors/Loaders/Backhoes	3	84	7	195	4,095	0.37	0.07	19.64	0.00480
	Building Construction	Generator Sets	1	14	8	195	1,560	0.74	0.18	6.25	0.00401
	Building Construction	Welders	1	46	8	195	1,560	0.45	0.10	7.40	0.00475
	Paving	Pavers	2	81	8	15	240	0.42	0.13	2.32	0.00968
	Paving	Rollers	2	36	8	15	240	0.38	0.15	1.11	0.00464
	Paving	Paving Equipment	2	89	8	15	240	0.36	0.08	1.36	0.00565
	Architectural Coating	Air Compressors	1	37	6	15	90	0.48	0.10	0.35	0.00388
									Total PM_{10} Emissions	**101.72**	**0.19528**

Source:
Construction Phase: CalEEMod Default
Equipment Type: CalEEMod Default
Quantity: CalEEMod Default
Source for HP: CalEEMod Default
Source for Load Factor: CalEEMod Default
Source for Emission Factor: CalEEMod Default

TABLE 5
CONSTRUCTION EMISSIONS FROM MOBILE SOURCES

Scenario	Construction Phase	Trip Type	EMFAC Vehicle Class	One-Way Trips Per Day	Miles per Trip	Work Days (per phase)	Total Distance (miles)	Emission Factors [1] (gms/mile)	Emission Factors (lbs/VMT)	Annual Emission Estimate (lbs/yr)	Normalized Hourly Emission Estimate (lbs/hr)
Project Construction	Site Preparation	Worker	LDT2	17.5	14.3	5	1,251	0.0092	2.04E-05	0.03	0.00021
	Grading	Worker	LDT2	15	14.3	15	3,218	0.0092	2.04E-05	0.07	0.00018
	Grading	Hauling	T7 Single Construction	25	20	15	7,500	0.0138	3.04E-05	0.23	0.00063
	Building Construction	Worker	LDT2	24.8	14.3	195	69,155	0.0092	2.04E-05	1.41	0.00030
	Building Construction	Vendor	T7 Single Construction	11.1	8.8	195	19,048	0.0138	3.04E-05	0.58	0.00012
	Paving	Worker	LDT2	15	14.3	15	3,218	0.0092	2.04E-05	0.07	0.00018
	Architectural Coating	Worker	LDT2	4.97	14.3	15	1,066	0.0092	2.04E-05	0.02	0.00006
									Total PM_{10} Emissions	**2.40**	**0.00170**

Source:

Construction Phase: CalEEMod Default

Trip Type: CalEEMod Default

Trips Per Day: CalEEMod Default

Miles per Trip: CalEEMod Default

Work Days: CalEEMod Default

(1) Emission Factors source: EMFAC2017 for Sacramento County Year 2025, for speed distribution of 10 mph

TABLE 6
CONSTRUCTION EMISSIONS FROM MOBILE SOURCES - IDLING

Scenario	Construction Phase	Trip Type	EMFAC Vehicle Class [1]	One-Way Trips Per Day	Idle Time per Trip [2] (hrs/trip)	Work Days (per phase)	Idle Emission Factors [3] (g/day-vehicle)	Idle Emission Factors (lbs/hr-veh)	Annual Emission Estimate (lbs/yr)	Normalized Hourly Emission Estimate (lbs/hr)
Project Construction	Site Preparation	Worker	LDT2	17.5	0.09	5	0.0278	2.55E-06	0.00002	1.68E-07
	Grading	Worker	LDT2	15	0.09	15	0.0278	2.55E-06	0.00005	1.44E-07
	Grading	Hauling	T7 Single Construction	25	0.09	15	0.0075	6.85E-07	0.00002	6.42E-08
	Building Construction	Worker	LDT2	24.8	0.09	195	0.0278	2.55E-06	0.00111	2.38E-07
	Building Construction	Vendor	T7 Single Construction	11.1	0.09	195	0.0075	6.85E-07	0.00013	2.85E-08
	Paving	Worker	LDT2	15	0.09	15	0.0278	2.55E-06	0.00005	1.44E-07
	Architectural Coating	Worker	LDT2	4.97	0.09	15	0.0278	2.55E-06	0.00002	4.76E-08
								Total PM_{10} Emissions	**0.00139**	**7.69E-07**

Source:

(1) PM10 Emission Factors aren't provided for EMFAC's LDT2. PM10 Emission Factor for LHD1 used as surrogate

(2) Assumes 5 minute idle time

(3) Emission Factors source: EMFAC2017 for Sacramento County Year 2025

TABLE 7
CANCER RISK FROM PROJECT CONSTRUCTION EMISSIONS

Receptor		Carcinogenic Inhalation Health Risk	Threshold of Significance	Exceed Threshold?
Receptor 1	Little League Park	5.05E-06	1.00E-05	No
Receptor 2	Residence	**3.70E-05**	1.00E-05	Yes
Receptor 3	Residence	**3.05E-05**	1.00E-05	Yes
Receptor 4	Residence	**2.26E-05**	1.00E-05	Yes
Receptor 5	Lark Apartments	2.39E-06	1.00E-05	No
Receptor 6	Youth Symphony	3.16E-06	1.00E-05	No

TABLE 8
NON-CANCER RISK FROM PROJECT CONSTRUCTION EMISSIONS

Receptor		Chronic Health Risk	Threshold of Significance	Exceed Threshold?
Receptor 1	Little League Park	2.84E-02	1.00E+00	No
Receptor 2	Residence	2.08E-01	1.00E+00	No
Receptor 3	Residence	1.72E-01	1.00E+00	No
Receptor 4	Residence	1.27E-01	1.00E+00	No
Receptor 5	Lark Apartments	1.34E-02	1.00E+00	No
Receptor 6	Youth Symphony	1.78E-02	1.00E+00	No

TABLE 9
ON-SITE EQUIPMENT CONSTRUCTION EMISSIONS WITH MITIGATION

ario	Construction Phase	Equipment Type	Quantity	HP	Daily Operation (hrs/day)	Work Days (per phase)	Total Operation Hours (hrs)	Load Factor	Emission Factor (g/hp-hr)	Annual Emission Estimate (lbs/yr)	Normalized Hourly Emission Estimate (lbs/hr)
Project Construction	Site Preparation	Rubber Tired Dozers	3	367	8	5	120	0.40	0.16	6.17	0.05146
	Site Preparation	Tractors/Loaders/Backhoes	4	84	8	5	160	0.37	0.08	0.84	0.00528
	Grading	Excavators	1	36	8	15	120	0.38	0.01	0.03	0.00024
	Grading	Graders	1	148	8	15	120	0.41	0.01	0.13	0.00107
	Grading	Rubber Tired Dozers	1	367	8	15	120	0.40	0.01	0.31	0.00259
	Grading	Tractors/Loaders/Backhoes	3	84	8	15	360	0.37	0.01	0.20	0.00055
	Building Construction	Cranes	1	367	7	195	1,365	0.29	0.01	2.56	0.00188
	Building Construction	Forklifts	3	82	8	195	4,680	0.20	0.01	1.35	0.00029
	Building Construction	Tractors/Loaders/Backhoes	3	84	7	195	4,095	0.37	0.01	2.24	0.00055
	Building Construction	Generator Sets	1	14	8	195	1,560	0.74	0.01	0.29	0.00018
	Building Construction	Welders	1	46	8	195	1,560	0.45	0.01	0.57	0.00037
	Paving	Pavers	2	81	8	15	240	0.42	0.13	2.32	0.00968
	Paving	Rollers	2	36	8	15	240	0.38	0.15	1.11	0.00464
	Paving	Paving Equipment	2	89	8	15	240	0.36	0.08	1.36	0.00565
	Architectural Coating	Air Compressors	1	37	6	15	90	0.48	0.10	0.35	0.00388
									Total PM_{10} Emissions	19.84	0.08829

Source:

Construction Phase: CalEEMod Default

Equipment Type: CalEEMod Default

Quantity: CalEEMod Default

Source for HP: CalEEMod Default

Source for Load Factor: CalEEMod Default

Source for Emission Factor: CalEEMod Default

TABLE 10
CANCER RISK FROM PROJECT CONSTRUCTION EMISSIONS WITH MITIGATION

Receptor		Carcinogenic Inhalation Health Risk	Threshold of Significance	Exceed Threshold?
Receptor 1	Little League Park	1.06E-06	1.00E-05	No
Receptor 2	Residence	8.58E-06	1.00E-05	No
Receptor 3	Residence	8.10E-06	1.00E-05	No
Receptor 4	Residence	7.53E-06	1.00E-05	No
Receptor 5	Lark Apartments	5.06E-07	1.00E-05	No
Receptor 6	Youth Symphony	7.11E-07	1.00E-05	No

5.2.2 Project Operations

As noted previously, the specific operations of the Project site are unknown at this time as the property developer intends to develop the site and lease the building to interested business(es). Conservative assumptions consistent with typical warehouse uses were utilized, as appropriate, to estimate TACs associated with Project operations. In the event a manufacturing type and/or stationary source emitting business seeks to lease the building, an updated project-specific HRA would be required.

The principal sources or processes from the Project that have the potential to emit various TAC's include diesel emissions from Truck Traffic and Truck Idling. The characteristics of the Project, typical warehouse uses, are not consistent with the land use categories presented in Table 2. However, Vehicle DPM emissions were estimated using emission factors for particulate matter less than 10µm in diameter (PM10) generated with the 2017 version of EMFAC developed by the ARB. EMFAC 2017 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources. EMFAC 2017 incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

For this Project, annual average PM10 emission factors were generated by running EMFAC 2017 for vehicles in Sacramento County. The EMFAC model generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. It was assumed that trucks traveled at 10 miles per hour while performing onsite driving and maneuvering. Emissions estimates for diesel operated vehicles are shown in Tables 11 and 12.

Tables 13 and 14 identify the impact of Project operational emissions, considering dispersion modeling, at adjacent sensitive receptors which represent the maximally exposed individuals. Results of the analysis show that TAC emissions at sensitive receptors adjacent to the Project site would not exceed applicable significant thresholds considering Project operations. TAC emissions generated during Project operations would not expose sensitive receptors to substantial pollutant concentrations. Therefore, mitigation is not warranted since there is a ***less than significant impact*** from Project operational emissions.

TABLE 11
ONSITE ON-ROAD MOBILE SOURCE EMISSIONS

Pollutant	Vehicle Type	EMFAC Vehicle Class	Maximum Daily Trips (trips/day)	Total Annual Round-Trips (trips/yr)	Round-Trip Distance (miles)	Emission Factors [1] (gms/mile)	Emission Factors (lbs/VMT)	Annual Emissions (lbs/mile/yr)	Maximum Daily Emission Estimate (lbs/day)	Annual Average Emission Estimate (tons/yr)
ROG Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	0.063	1.395E-04	2.2	0.000865	0.000112
							Total ROG Emissions	**2.2**	**0.000865**	**0.000112**
TOG Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	0.072	1.588E-04	2.6	0.000984	0.000128
							Total TOG Emissions	**2.6**	**0.000984**	**0.000128**
SO_x Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	0.026	5.670E-05	0.9	0.000352	0.000046
							Total SO_x Emissions	**0.9**	**0.000352**	**0.000046**
CO Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	1.058	2.332E-03	37.6	0.014461	0.001880
							Total CO Emissions	**37.6**	**0.014461**	**0.001880**
NO_X Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	7.316	1.613E-02	260.0	0.099995	0.012999
							Total NO_X Emissions	**260.0**	**0.099995**	**0.012999**
CO_2 Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	2722.163	6.001E+00	96,741.6	37.208316	4.837081
							Total CO_2 Emissions	**96,741.6**	**37.208316**	**4.837081**
PM_{10} Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	0.006	1.359E-05	0.2	0.000084	0.000011
							Total PM_{10} Emissions	**0.2**	**0.000084**	**0.000011**
$PM_{2.5}$ Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.2	0.006	1.300E-05	0.2	0.000081	0.000010
							Total $PM_{2.5}$ Emissions	**0.2**	**0.000081**	**0.000010**

References:
(1) Emission Factors source: EMFAC2017 for Sacramento County Year 2025, for speed distribution of 10 mph
Assumptions:
Maximum 31 Daily Truck Trips

TABLE 12
ONSITE ON-ROAD MOBILE SOURCE IDLING EMISSIONS

Pollutant	Vehicle Type	EMFAC Vehicle Class	Maximum Daily Trips (trips/day)	Total Annual Round-Trips (trips/yr)	Idle Time per Trip [1] (hrs/trip)	Idle Emission Factors [2] (g/hr-veh)	Idle Emission Factors (lbs/hr-veh)	Maximum Daily Emission Estimate (lbs/day)	Annual Average Emission Estimate (tons/yr)
ROG Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	2.186	4.82E-03	0.013447	0.001748
							Total ROG Emissions	**0.013447**	**0.001748**
TOG Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	2.489	5.49E-03	0.015308	0.001990
							Total TOG Emissions	**0.015308**	**0.001990**
CO Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	32.301	7.12E-02	0.198683	0.025829
							Total CO Emissions	**0.198683**	**0.025829**
NO_X Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	25.833	5.70E-02	0.158896	0.020657
							Total NO_X Emissions	**0.158896**	**0.020657**
CO_2 Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	5248.490	1.16E+01	32.282921	4.196780
							Total CO_2 Emissions	**32.282921**	**4.196780**
SO_X Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	0.050	1.09E-04	0.000305	0.000040
							Total SO_X Emissions	**0.000305**	**0.000040**
PM_{10} Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	0.009	2.05E-05	0.000057	0.000007
							Total PM_{10} Emissions	**0.000057**	**0.000007**
$PM_{2.5}$ Exhaust	Product Trucks - Outside Sales	T7	31	16120	0.09	0.009	1.96E-05	0.000055	0.000007
							Total $PM_{2.5}$ Emissions	**0.000055**	**0.000007**

References:
(1) Assumes 5 minute idle time
(2) Emission Factors source: EMFAC2017 for Sacramento County Year 2025.
Assumptions:
Maximum 31 Daily Truck Trips

TABLE 13
CANCER RISK FROM PROJECT OPERATIONAL EMISSIONS

Receptor		Carcinogenic Inhalation Health Risk	Threshold of Significance	Exceed Threshold?
Receptor 1	Little League Park	6.01E-09	1.00E-05	No
Receptor 2	Residence	8.80E-08	1.00E-05	No
Receptor 3	Residence	1.26E-07	1.00E-05	No
Receptor 4	Residence	1.77E-07	1.00E-05	No
Receptor 5	Lark Apartments	3.84E-09	1.00E-05	No
Receptor 6	Youth Symphony	6.36E-09	1.00E-05	No

TABLE 14
NON-CANCER RISK FROM PROJECT OPERATIONAL EMISSIONS

Receptor		Chronic Health Risk	Threshold of Significance	Exceed Threshold?
Receptor 1	Little League Park	6.09E-06	1.00E+00	No
Receptor 2	Residence	8.92E-05	1.00E+00	No
Receptor 3	Residence	1.28E-04	1.00E+00	No
Receptor 4	Residence	1.79E-04	1.00E+00	No
Receptor 5	Lark Apartments	3.89E-06	1.00E+00	No
Receptor 6	Youth Symphony	6.45E-06	1.00E+00	No

5.3 Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) refers to several types fibrous minerals found in California, mainly chrysotile. These minerals are often located in ultramafic rock and near fault zones, with asbestos content ranging from less than 1% to over 25%. Asbestos is released when these rocks are broken or crushed, such as by driving on unpaved roads, land grading, or quarrying. Weathering and erosion also release asbestos, which can become airborne and pose health risks including lung disease and cancer, depending on exposure levels and duration. The longer a person is exposed to asbestos and the greater the intensity of the exposure, the greater the chances for health issues.

The Project's construction phase may cause asbestos to become airborne due to construction activities that will occur on site. The Project would be required to comply with Rule 403, which aims to regulate operations that periodically cause fugitive dust emissions into the atmosphere. The Project is also subject to the following Enhanced Fugitive PM Dust Control Practices:

- Soil Disturbance Areas
    - Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site.
    - Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 mph.
    - Install wind breaks (e.g., plant trees, solid fencing) on windward side(s) of construction areas.
    - Plant vegetative ground cover (fast-germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established.

- Unpaved Roads (Entrained Road Dust)
    - Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
    - Treat site accesses to a distance of 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.
    - Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of the District shall also be visible to ensure compliance.

The Department of Conservation California Geological Survey prepared the *Relative Likelihood For The Presence Of Naturally Occurring Asbestos In Eastern Sacramento County, California* (2006), which identifies areas within eastern Sacramento County that are likely to have NOA. The areas that are moderately likely to contain NOA are found along a northerly trending region that extends from Folsom Lake to the Cosumnes River. These areas include parts of the communities of Folsom and Rancho Murieta. The Project site is located within "areas least likely to contain NOA" based upon data presented in the report prepared by the Department of Conservation California Geological Survey. The construction phase of the Project will have a less than significant impact on sensitive receptors with respect to NOA given the requirements of Rule 403 and the presumed lack of NOA on the Project site. Therefore, mitigation is not warranted since there is a less than significant impact from Project construction emissions.

REFERENCES

- Sacramento Metropolitan Air Quality Management District (Sonoma Technology) *Quantification of Local-Scale Benzene and Other Mobile Source Air Toxics in Sacramento's Communities*, December 2024
- *Sacramento 2040 General Plan*, Adopted February 27, 2024
- Sacramento Metropolitan Air Quality Management District *Guide To Air Quality Assessment in Sacramento County*, Revised April 2021
- California Air Resources Board (CARB) and California Air Pollution Control Officers Association (CAPCOA) *Risk Management Guidance for Stationary Sources of Air Toxics*, July 23, 2015
- California Air Pollution Control Officers Association (CAPCOA) *California's Progress Toward Clean Air*, 2015
- Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program – Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, February 2015
- California Air Pollution Control Officers Association (CAPCOA) *Health Risk Assessments for Proposed Land Use Projects*, July 2009
- California Air Pollution Control Officers Association (CAPCOA) *CEQA & Climate Change*, January 2008
- Department of Conservation California Geological Survey *Relative Likelihood For The Presence Of Naturally Occurring Asbestos In Eastern Sacramento County, California*, 2006
- California Environmental Protection Agency/California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005
- City of Fontana, County of San Bernardino, State of California *Truck Trip Generation Study*, August 2003

APPENDIX A
CalEEMod Worksheets from Air Study

Ramona Opportunity Industrial Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Ramona Opportunity Industrial
Construction Start Date	2/2/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	37.8
Location	38.54466162587582, -121.41533652036134
County	Sacramento
City	Sacramento
Air District	Sacramento Metropolitan AQMD
Air Basin	Sacramento Valley
TAZ	766
EDFZ	13
Electric Utility	Sacramento Municipal Utility District
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	31.9	1000sqft	3.30	31,905	69,411	—	—	—

General Office Building	35.7	1000sqft	0.00	35,707	—	—	—	—
Parking Lot	104	1000sqft	2.39	0.00	—	—	—	—
Other Asphalt Surfaces	2.73	1000sqft	0.06	0.00	—	—	—	Outdoor Patio

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.	1.42	1.18	10.5	14.6	0.03	0.38	0.33	0.72	0.35	0.08	0.43	—	2,988	2,988	0.12	0.08	1.74	3,015
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	33.5	33.5	29.2	29.5	0.05	1.24	7.72	8.40	1.14	3.59	4.22	—	5,471	5,471	0.29	0.32	0.11	5,491
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.80	1.64	7.08	9.27	0.02	0.26	0.50	0.76	0.24	0.19	0.43	—	1,933	1,933	0.08	0.06	0.49	1,953
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.33	0.30	1.29	1.69	< 0.005	0.05	0.09	0.14	0.04	0.04	0.08	—	320	320	0.01	0.01	0.08	323

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.42	1.18	10.5	14.6	0.03	0.38	0.33	0.72	0.35	0.08	0.43	—	2,988	2,988	0.12	0.08	1.74	3,015
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	33.5	33.5	29.2	29.5	0.05	1.24	7.72	8.40	1.14	3.59	4.22	—	5,471	5,471	0.29	0.32	0.11	5,491
2027	33.5	33.5	0.85	1.32	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	182	182	0.01	< 0.005	< 0.005	183
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.80	1.64	7.08	9.27	0.02	0.26	0.50	0.76	0.24	0.19	0.43	—	1,933	1,933	0.08	0.06	0.49	1,953
2027	0.52	0.52	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.86	2.86	< 0.005	< 0.005	< 0.005	2.88
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.33	0.30	1.29	1.69	< 0.005	0.05	0.09	0.14	0.04	0.04	0.08	—	320	320	0.01	0.01	0.08	323
2027	0.10	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48

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.	4.07	3.88	1.74	16.9	0.03	0.05	2.53	2.59	0.05	0.64	0.69	63.4	4,718	4,781	3.72	0.20	9.62	4,943
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.37	3.20	1.95	12.2	0.03	0.05	2.53	2.58	0.05	0.64	0.69	63.4	4,445	4,509	3.74	0.21	0.33	4,665
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	3.73	3.54	1.87	13.9	0.03	0.05	2.47	2.52	0.05	0.63	0.68	63.4	4,507	4,571	3.73	0.20	4.20	4,729
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.68	0.65	0.34	2.54	0.01	0.01	0.45	0.46	0.01	0.11	0.12	10.5	746	757	0.62	0.03	0.70	783

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	1.92	1.78	1.37	13.7	0.03	0.02	2.53	2.55	0.02	0.64	0.66	—	3,037	3,037	0.14	0.13	9.53	3,088
Area	2.12	2.08	0.02	2.94	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	12.1	12.1	< 0.005	< 0.005	—	12.1
Energy	0.04	0.02	0.35	0.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,629	1,629	0.08	0.01	—	1,633
Water	—	—	—	—	—	—	—	—	—	—	—	29.3	39.7	69.0	0.10	0.06	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	34.1	0.00	34.1	3.40	0.00	—	119
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	4.07	3.88	1.74	16.9	0.03	0.05	2.53	2.59	0.05	0.64	0.69	63.4	4,718	4,781	3.72	0.20	9.62	4,943
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.74	1.59	1.61	11.9	0.03	0.02	2.53	2.55	0.02	0.64	0.66	—	2,777	2,777	0.16	0.14	0.25	2,823
Area	1.59	1.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.35	0.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,629	1,629	0.08	0.01	—	1,633
Water	—	—	—	—	—	—	—	—	—	—	—	29.3	39.7	69.0	0.10	0.06	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	34.1	0.00	34.1	3.40	0.00	—	119
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	3.37	3.20	1.95	12.2	0.03	0.05	2.53	2.58	0.05	0.64	0.69	63.4	4,445	4,509	3.74	0.21	0.33	4,665
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.74	1.60	1.50	11.6	0.03	0.02	2.47	2.49	0.02	0.63	0.65	—	2,830	2,830	0.15	0.13	4.12	2,878
Area	1.95	1.92	0.02	2.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.28	8.28	< 0.005	< 0.005	—	8.31
Energy	0.04	0.02	0.35	0.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,629	1,629	0.08	0.01	—	1,633
Water	—	—	—	—	—	—	—	—	—	—	—	29.3	39.7	69.0	0.10	0.06	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	34.1	0.00	34.1	3.40	0.00	—	119
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	3.73	3.54	1.87	13.9	0.03	0.05	2.47	2.52	0.05	0.63	0.68	63.4	4,507	4,571	3.73	0.20	4.20	4,729
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.32	0.29	0.27	2.12	0.01	< 0.005	0.45	0.45	< 0.005	0.11	0.12	—	469	469	0.02	0.02	0.68	476
Area	0.36	0.35	< 0.005	0.37	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.37	1.37	< 0.005	< 0.005	—	1.38
Energy	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	270	270	0.01	< 0.005	—	270
Water	—	—	—	—	—	—	—	—	—	—	—	4.86	6.58	11.4	0.02	0.01	—	15.0
Waste	—	—	—	—	—	—	—	—	—	—	—	5.64	0.00	5.64	0.56	0.00	—	19.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.68	0.65	0.34	2.54	0.01	0.01	0.45	0.46	0.01	0.11	0.12	10.5	746	757	0.62	0.03	0.70	783

3. Construction Emissions Details

3.1. Site Preparation (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 Equipm	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.6	72.6	< 0.005	< 0.005	—	72.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.73	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.02	175
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.43	2.43	< 0.005	< 0.005	< 0.005	2.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.41
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (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	1.96	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	—	7.10	7.10	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.62	0.72	< 0.005	0.03	—	0.03	0.02	—	0.02	—	122	122	< 0.005	< 0.005	—	122
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.1	20.1	< 0.005	< 0.005	—	20.2
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.62	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	148	148	< 0.005	0.01	0.02	150
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	0.21	0.05	3.41	1.27	0.01	0.03	0.47	0.51	0.03	0.13	0.16	—	1,812	1,812	0.17	0.29	0.10	1,904
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.25	6.25	< 0.005	< 0.005	0.01	6.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	74.5	74.5	0.01	0.01	0.07	78.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.01	13.0

3.5. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.57	5.26	6.93	0.01	0.20	—	0.20	0.19	—	0.19	—	1,281	1,281	0.05	0.01	—	1,285
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.12	0.10	0.96	1.26	< 0.005	0.04	—	0.04	0.03	—	0.03	—	212	212	0.01	< 0.005	—	213

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.06	1.40	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	276	276	< 0.005	0.01	0.99	280
Vendor	0.03	0.01	0.54	0.21	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	314	314	0.02	0.05	0.76	329
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.08	1.03	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	245	245	0.01	0.01	0.03	249
Vendor	0.03	0.01	0.58	0.21	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	314	314	0.02	0.05	0.02	329
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.56	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	135	135	< 0.005	0.01	0.23	136
Vendor	0.02	0.01	0.31	0.11	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	168	168	0.01	0.03	0.17	176
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.3	22.3	< 0.005	< 0.005	0.04	22.6
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.8	27.8	< 0.005	< 0.005	0.03	29.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2026) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	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	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.62	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	148	148	< 0.005	0.01	0.02	150
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.25	6.25	< 0.005	< 0.005	0.01	6.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (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 Coating	33.3	33.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.40	3.40	< 0.005	< 0.005	—	3.41
Architectural Coatings	0.85	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.56	0.56	< 0.005	< 0.005	—	0.56
Architectural Coatings	0.15	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	49.1	49.1	< 0.005	< 0.005	0.01	49.7
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	33.3	33.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.09	2.09	< 0.005	< 0.005	—	2.10
Architectural Coatings	0.52	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.35	0.35	< 0.005	< 0.005	—	0.35
Architectural Coatings	0.10	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.2	48.2	< 0.005	< 0.005	< 0.005	48.8
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.77	0.77	< 0.005	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.24	0.22	0.17	1.69	< 0.005	< 0.005	0.31	0.32	< 0.005	0.08	0.08	—	375	375	0.02	0.02	1.18	381
General Office Building	1.68	1.56	1.20	12.0	0.03	0.02	2.22	2.24	0.02	0.56	0.58	—	2,662	2,662	0.12	0.11	8.35	2,706
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.92	1.78	1.37	13.7	0.03	0.02	2.53	2.55	0.02	0.64	0.66	—	3,037	3,037	0.14	0.13	9.53	3,088
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Wareho Rail	0.21	0.20	0.20	1.47	< 0.005	< 0.005	0.31	0.32	< 0.005	0.08	0.08	—	343	343	0.02	0.02	0.03	349
General Office Building	1.52	1.40	1.41	10.4	0.02	0.02	2.22	2.24	0.02	0.56	0.58	—	2,434	2,434	0.14	0.12	0.22	2,474
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.74	1.59	1.61	11.9	0.03	0.02	2.53	2.55	0.02	0.64	0.66	—	2,777	2,777	0.16	0.14	0.25	2,823
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Wareho use-No Rail	0.04	0.04	0.03	0.26	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	57.9	57.9	< 0.005	< 0.005	0.08	58.9
General Office Building	0.28	0.26	0.24	1.86	< 0.005	< 0.005	0.40	0.40	< 0.005	0.10	0.10	—	411	411	0.02	0.02	0.60	418
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.32	0.29	0.27	2.12	0.01	< 0.005	0.45	0.45	< 0.005	0.11	0.12	—	469	469	0.02	0.02	0.68	476

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	276	276	0.01	< 0.005	—	277
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	844	844	0.03	< 0.005	—	846
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	93.8	93.8	< 0.005	< 0.005	—	94.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,215	1,215	0.04	0.01	—	1,217
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	276	276	0.01	< 0.005	—	277
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	844	844	0.03	< 0.005	—	846
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	93.8	93.8	< 0.005	< 0.005	—	94.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,215	1,215	0.04	0.01	—	1,217
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	140	140	< 0.005	< 0.005	—	140
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	15.5	15.5	< 0.005	< 0.005	—	15.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	201	201	0.01	< 0.005	—	202

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.8	33.8	< 0.005	< 0.005	—	33.8
General Office Building	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	382
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.35	0.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	414	414	0.04	< 0.005	—	416

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.8	33.8	< 0.005	< 0.005	—	33.8
General Office Building	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	382
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.35	0.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	414	414	0.04	< 0.005	—	416
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.59	5.59	< 0.005	< 0.005	—	5.60
General Office Building	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.0	63.0	0.01	< 0.005	—	63.2
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	68.6	68.6	0.01	< 0.005	—	68.8

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.46	1.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.52	0.48	0.02	2.94	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	12.1	12.1	< 0.005	< 0.005	—	12.1
Total	2.12	2.08	0.02	2.94	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	12.1	12.1	< 0.005	< 0.005	—	12.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.46	1.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.14	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.59	1.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.27	0.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coating	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.07	0.06	< 0.005	0.37	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.37	1.37	< 0.005	< 0.005	—	1.38
Total	0.36	0.35	< 0.005	0.37	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.37	1.37	< 0.005	< 0.005	—	1.38

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	15.8	22.1	37.9	0.05	0.03	—	49.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.6	17.6	31.2	0.05	0.03	—	41.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.3	39.7	69.0	0.10	0.06	—	90.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	15.8	22.1	37.9	0.05	0.03	—	49.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.6	17.6	31.2	0.05	0.03	—	41.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.3	39.7	69.0	0.10	0.06	—	90.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.61	3.66	6.27	0.01	0.01	—	8.20
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.25	2.92	5.16	0.01	< 0.005	—	6.82
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.86	6.58	11.4	0.02	0.01	—	15.0

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	16.2	0.00	16.2	1.62	0.00	—	56.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	17.9	0.00	17.9	1.79	0.00	—	62.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	34.1	0.00	34.1	3.40	0.00	—	119
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	16.2	0.00	16.2	1.62	0.00	—	56.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	17.9	0.00	17.9	1.79	0.00	—	62.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	34.1	0.00	34.1	3.40	0.00	—	119
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	2.68	0.00	2.68	0.27	0.00	—	9.36
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.96	0.00	2.96	0.30	0.00	—	10.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.64	0.00	5.64	0.56	0.00	—	19.7

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	2/2/2026	2/6/2026	5.00	5.00	—
Grading	Grading	2/7/2026	2/27/2026	5.00	15.0	—
Building Construction	Building Construction	2/28/2026	11/27/2026	5.00	195	—
Paving	Paving	11/28/2026	12/18/2026	5.00	15.0	—
Architectural Coating	Architectural Coating	12/19/2026	1/8/2027	5.00	15.0	—

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
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	25.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	24.8	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	11.1	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.97	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	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	101,418	33,806	6,417

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	2,500	500	10.0	0.00	—
Paving	0.00	0.00	0.00	0.00	2.46

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%

General Office Building	0.00	0%
Parking Lot	2.39	100%
Other Asphalt Surfaces	0.06	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	375	0.01	< 0.005
2027	0.00	375	0.01	< 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
Unrefrigerated Warehouse-No Rail	54.6	54.6	54.6	19,914	441	441	441	160,995
General Office Building	387	387	387	141,278	3,129	3,129	3,129	1,142,193
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. 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	101,418	33,806	6,417

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	269,221	375	0.0129	0.0017	105,316
General Office Building	822,132	375	0.0129	0.0017	1,187,957
Parking Lot	91,296	375	0.0129	0.0017	0.00
Other Asphalt Surfaces	0.00	375	0.0129	0.0017	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	7,378,031	969,418
General Office Building	6,346,339	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	30.0	—
General Office Building	33.2	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	18.8	annual days of extreme heat
Extreme Precipitation	6.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

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

6.3. Adjusted Climate Risk Scores

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	47.0
AQ-PM	37.6
AQ-DPM	84.3
Drinking Water	55.7
Lead Risk Housing	7.11

Pesticides	39.5
Toxic Releases	44.3
Traffic	85.3
Effect Indicators	—
CleanUp Sites	89.0
Groundwater	93.4
Haz Waste Facilities/Generators	97.9
Impaired Water Bodies	66.7
Solid Waste	99.9
Sensitive Population	—
Asthma	87.5
Cardio-vascular	71.3
Low Birth Weights	65.8
Socioeconomic Factor Indicators	—
Education	51.0
Housing	71.6
Linguistic	13.3
Poverty	77.2
Unemployment	81.0

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	11.98511485
Employed	6.159373797
Median HI	3.977928911
Education	—

Bachelor's or higher	37.80315668
High school enrollment	100
Preschool enrollment	7.134607982
Transportation	—
Auto Access	11.81829847
Active commuting	89.83703323
Social	—
2-parent households	1.373027076
Voting	30.29641986
Neighborhood	—
Alcohol availability	24.17554215
Park access	61.26010522
Retail density	52.17502887
Supermarket access	23.08481971
Tree canopy	84.10111639
Housing	—
Homeownership	17.95200821
Housing habitability	23.97022969
Low-inc homeowner severe housing cost burden	47.02938535
Low-inc renter severe housing cost burden	4.208905428
Uncrowded housing	40.20274605
Health Outcomes	—
Insured adults	44.48864365
Arthritis	45.8
Asthma ER Admissions	26.3
High Blood Pressure	46.3
Cancer (excluding skin)	45.0
Asthma	8.7

Coronary Heart Disease	34.0
Chronic Obstructive Pulmonary Disease	16.6
Diagnosed Diabetes	68.9
Life Expectancy at Birth	35.4
Cognitively Disabled	25.4
Physically Disabled	5.0
Heart Attack ER Admissions	24.2
Mental Health Not Good	22.6
Chronic Kidney Disease	55.3
Obesity	38.6
Pedestrian Injuries	19.6
Physical Health Not Good	37.1
Stroke	26.0
Health Risk Behaviors	—
Binge Drinking	48.9
Current Smoker	15.0
No Leisure Time for Physical Activity	43.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	61.0
Elderly	26.8
English Speaking	50.5
Foreign-born	5.9
Outdoor Workers	68.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	17.1
Traffic Density	81.6

Traffic Access	68.0
Other Indices	—
Hardship	76.4
Other Decision Support	—
2016 Voting	27.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	91.0
Healthy Places Index Score for Project Location (b)	10.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	See Project Description. 5.75 Lot Acreage. 69,411 SF pervious area included as Landscaped area (from Drainage Study).
Construction: Construction Phases	11-month construction duration beginning in February 2026.

Operations: Vehicle Data	Project would generate 442 new vehicle trips per day.
Construction: Dust From Material Movement	67,612 SF building * 1-foot grading depth = 2,500 CY of estimated import. 500 CY of export estimated.
Operations: Water and Waste Water	All landscaped area included under Unrefrigerated Warehouse-No Rail Land Use.

APPENDIX B
HRA Construction Worksheets

```
**AERMOD INPUT FILE CREATED BY HARP VERSION 22118
**DATE CREATED: 5/16/2025 4:14:49 PM
**
CO STARTING
   TITLEONE  Ramona Industrial
   TITLETWO
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   POLLUTID OTHER
   RUNORNOT RUN
   ERRORFIL "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\RAMONA INDUSTRIAL PROJECT\RAMONA INDUSTRIAL
PROJECT_AERMOD.ERR"
CO FINISHED
**
**SOURCES
SO STARTING
**SOURCES LOCATIONS
   LOCATION 001 VOLUME  638121.6  4267402  11.91
   LOCATION 002 POINT  638122.4  4267392  11.93
   LOCATION 003 LINE  638229.5  4267409  638127.2  4267351  9.8
   LOCATION 004 LINE  638229.5  4267409  638127.2  4267351  9.8
**SOURCES PARAMETERS
   SRCPARAM 001 1 3.05 8.45  6.1
   SRCPARAM 002 1 3.84 366  50  0.1
   SRCPARAM 003 0.00304 3.66 2.8 3.66
   SRCPARAM 004 0.00304 0 2.8 3.66
   SRCGROUP 001 001
   SRCGROUP 002 002
   SRCGROUP 003 003
   SRCGROUP 004 004
SO FINISHED
**
**RECEPTORS
RE STARTING
   INCLUDED "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\RAMONA INDUSTRIAL PROJECT\RAMONA INDUSTRIAL
PROJECT_AERMAP.REC"
RE FINISHED
**
**MET PATHWAY
ME STARTING
ME SURFFILE "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\14-18.SFC"
ME PROFFILE "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\14-18.PFL"
ME SURFDATA 23232 2014
ME UAIRDATA 23230 2014
ME SITEDATA 0 2014
ME PROFBASE 7.2
```

```
ME FINISHED
**
**OUTPUT PATHWAY
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   PLOTFILE 1 001 1ST "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003
Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL PROJECT\plt\MAX1HR001.PLT" 31
   PLOTFILE 1 002 1ST "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003
Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL PROJECT\plt\MAX1HR002.PLT" 32
   PLOTFILE 1 003 1ST "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003
Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL PROJECT\plt\MAX1HR003.PLT" 33
   PLOTFILE 1 004 1ST "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003
Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL PROJECT\plt\MAX1HR004.PLT" 34
   PLOTFILE PERIOD 001 "D:\Extra HDD Files\JK Consulting Group Project
Files\2025-003 Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL
PROJECT\plt\PERIOD001.PLT" 35
   PLOTFILE PERIOD 002 "D:\Extra HDD Files\JK Consulting Group Project
Files\2025-003 Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL
PROJECT\plt\PERIOD002.PLT" 36
   PLOTFILE PERIOD 003 "D:\Extra HDD Files\JK Consulting Group Project
Files\2025-003 Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL
PROJECT\plt\PERIOD003.PLT" 37
   PLOTFILE PERIOD 004 "D:\Extra HDD Files\JK Consulting Group Project
Files\2025-003 Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL
PROJECT\plt\PERIOD004.PLT" 38
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W200       6       TITLES: Missing Parameter(s). No Options Specified For
 TITLETWO
 ME W186      45       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
 ME W187      45       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
```

```
 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                          ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                         ***       16:14:59

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                              ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  OTHER

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:      4 Source(s);       4 Source Group(s); and      25
Receptor(s)

                with:      1 POINT(s), including
```

```
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:      1 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      2 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with a total of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  19191

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     7.20 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;
Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   D:\Extra HDD Files\JK Consulting Group Project
Files\2025-003 Ramona Opportunity Industrial\HARP
 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                           ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                           ***        16:14:59

                                      PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                  *** POINT SOURCE DATA ***
```

```
              NUMBER EMISSION RATE                    BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT
VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                   VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 002              0   0.10000E+01  638122.4 4267392.0    11.9     3.84   366.00
50.00     0.10    NO      NO    NO
↑ *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                        ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                       ***        16:14:59

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 001              0   0.10000E+01  638121.6 4267402.0    11.9     3.05     8.45
6.10     NO
↑ *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                        ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                       ***        16:14:59

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** LINE SOURCE DATA ***

              NUMBER EMISSION RATE     FIRST COORD        SECOND COORD     BASE
RELEASE    WIDTH    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC        X       Y           X       Y      ELEV.
HEIGHT    OF LINE    SZ     SOURCE SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS)   (METERS) (METERS) (METERS)
```

```
(METERS)  (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 003              0   0.30400E-02  638229.5 4267409.0  638127.2 4267351.0     9.8
 3.66      2.80     3.66     NO
 004              0   0.30400E-02  638229.5 4267409.0  638127.2 4267351.0     9.8
 0.00      2.80     3.66     NO
```


```
                                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                    SOURCE IDs
 -----------                                                    ----------


  001        001         ,

  002        002         ,

  003        003         ,

  004        004         ,
```


```
                                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                  (METERS)

     ( 637921.7, 4267468.0,      12.2,      12.2,       0.0);         ( 638181.6,
4267462.0,      11.7,      11.7,       0.0);
     ( 638189.6, 4267436.0,      11.1,      11.1,       0.0);         ( 638208.0,
4267422.0,      10.4,      10.4,       0.0);
     ( 637779.4, 4267667.0,      12.2,      12.2,       0.0);         ( 638408.6,
4267327.0,       8.9,       8.9,       0.0);
     ( 638031.1, 4267388.0,      12.1,      12.1,       0.0);         ( 638056.4,
4267345.0,      12.1,      12.1,       0.0);
```

```
     ( 638081.6, 4267301.0,      12.1,      12.1,       0.0);         ( 638106.9,
4267258.0,      11.9,      11.9,       0.0);
     ( 638111.5, 4267250.0,      12.0,      12.0,       0.0);         ( 638146.1,
4267272.0,       8.8,      11.3,       0.0);
     ( 638188.4, 4267299.0,       8.6,       8.6,       0.0);         ( 638230.7,
4267326.0,       8.3,       8.3,       0.0);
     ( 638268.4, 4267349.0,       7.8,       7.8,       0.0);         ( 638265.5,
4267354.0,       7.8,       7.8,       0.0);
     ( 638238.4, 4267396.0,       9.3,       9.3,       0.0);         ( 638227.2,
4267413.0,       9.9,       9.9,       0.0);
     ( 638201.1, 4267400.0,      10.1,      10.1,       0.0);         ( 638186.0,
4267392.0,      10.3,      10.3,       0.0);
     ( 638168.0, 4267419.0,      11.2,      11.2,       0.0);         ( 638163.5,
4267426.0,      11.4,      11.4,       0.0);
     ( 638123.2, 4267415.0,      11.9,      11.9,       0.0);         ( 638107.6,
4267410.0,      12.1,      12.1,       0.0);
     ( 638075.2, 4267401.0,      12.2,      12.2,       0.0);

 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                          ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                         ***        16:14:59

                                    PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                      * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT
BE PERFORMED *
                        LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR
FASTAREA/FASTALL


                               SOURCE          - - RECEPTOR LOCATION - -
DISTANCE
                                 ID            XR (METERS)   YR (METERS)
(METERS)
                              - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -

                               001                638123.2     4267415.0
-5.07
                               001                638107.6     4267410.0
-2.04
 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                          ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                         ***        16:14:59

                                    PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*
```

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity Met Version: 19191
Profile file: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity
Surface format: FREE

Profile format: FREE

Surface station no.: 23232 Upper air station no.: 23230
Name: UNKNOWN Name: UNKNOWN

Year: 2014 Year: 2014

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
14	01	01	1	01	-1.4	0.061	-9.000	-9.000	-999.	36.	14.2	0.04	0.93	1.00	0.62	152.	10.1	274.9	2.0
14	01	01	1	02	-4.9	0.096	-9.000	-9.000	-999.	72.	16.7	0.16	0.93	1.00	1.08	107.	10.1	274.2	2.0
14	01	01	1	03	-5.3	0.100	-9.000	-9.000	-999.	76.	17.3	0.16	0.93	1.00	1.13	95.	10.1	274.2	2.0
14	01	01	1	04	-2.4	0.075	-9.000	-9.000	-999.	49.	15.4	0.16	0.93	1.00	0.70	117.	10.1	273.8	2.0
14	01	01	1	05	-3.8	0.084	-9.000	-9.000	-999.	59.	14.5	0.11	0.93	1.00	1.03	120.	10.1	273.1	2.0
14	01	01	1	06	-2.3	0.072	-9.000	-9.000	-999.	46.	14.5	0.11	0.93	1.00	0.74	128.	10.1	273.1	2.0
14	01	01	1	07	-1.3	0.061	-9.000	-9.000	-999.	36.	16.0	0.05	0.93	1.00	0.53	232.	10.1	273.1	2.0
14	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.08	0.93	0.76	0.00	0.	10.1	273.1	2.0
14	01	01	1	09	-1.5	0.085	-9.000	-9.000	-999.	60.	38.3	0.11	0.93	0.40	1.03	133.	10.1	278.1	2.0
14	01	01	1	10	40.2	0.170	0.461	0.019	88.	168.	-11.2	0.11	0.93	0.28	1.50	122.	10.1	281.4	2.0
14	01	01	1	11	74.7	0.195	0.704	0.017	170.	206.	-9.0	0.11	0.93	0.23	1.67	140.	10.1	283.8	2.0
14	01	01	1	12	94.4	0.181	0.832	0.016	222.	184.	-5.7	0.04	0.93	0.22	1.88	157.	10.1	286.4	2.0
14	01	01	1	13	97.3	0.170	0.891	0.014	265.	168.	-4.6	0.04	0.93	0.22	1.71	173.	10.1	287.5	2.0
14	01	01	1	14	84.1	0.178	0.894	0.013	309.	181.	-6.1	0.04	0.93	0.23	1.81	202.	10.1	289.2	2.0
14	01	01	1	15	54.8	0.119	0.824	0.012	371.	99.	-2.8	0.04	0.93	0.26	1.08	189.	10.1	289.9	2.0
14	01	01	1	16	12.2	0.060	0.506	0.012	384.	36.	-1.6	0.04	0.93	0.35	0.52	169.	10.1	288.8	2.0
14	01	01	1	17	-2.3	0.067	-9.000	-9.000	-999.	42.	11.9	0.04	0.93	0.60	0.96	173.	10.1	286.4	2.0
14	01	01	1	18	-1.7	0.066	-9.000	-9.000	-999.	40.	15.2	0.09	0.93	1.00	0.62	252.	10.1	283.8	2.0
14	01	01	1	19	-1.7	0.069	-9.000	-9.000	-999.	43.	17.0	0.15	0.93	1.00	0.55	79.	10.1	281.4	2.0
14	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.08	0.93						

```
1.00    0.00    0.   10.1  280.4    2.0
 14 01 01   1 21   -1.7  0.062 -9.000 -9.000 -999.   37.     13.4  0.04   0.93
1.00    0.69    7.   10.1  279.2    2.0
 14 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.08   0.93
1.00    0.00    0.   10.1  278.1    2.0
 14 01 01   1 23   -1.3  0.060 -9.000 -9.000 -999.   35.     14.8  0.04   0.93
1.00    0.58   28.   10.1  277.5    2.0
 14 01 01   1 24   -2.2  0.067 -9.000 -9.000 -999.   42.     12.2  0.04   0.93
1.00    0.87   24.   10.1  277.5    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 14 01 01 01   10.1 1  152.    0.62   274.9   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                          ***       05/16/25
 *** AERMET - VERSION  19191 ***   ***
                         ***       16:14:59

                                   PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 001       ***
                                   INCLUDING SOURCE(S):     001         ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF OTHER    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         637921.70    4267468.00       19.05788                      638181.60
4267462.00      135.48934
         638189.60    4267436.00      107.04056                      638208.00
4267422.00       71.99848
         637779.40    4267667.00        8.98708                      638408.60
4267327.00       11.67961
         638031.10    4267388.00       52.74311                      638056.40
4267345.00       55.92179
         638081.60    4267301.00       49.10062                      638106.90
4267258.00       35.91540
         638111.50    4267250.00       33.59912                      638146.10
4267272.00       45.36092
```

638188.40   4267299.00   63.99858   638230.70
4267326.00   47.56276
638268.40   4267349.00   31.77296   638265.50
4267354.00   32.91789
638238.40   4267396.00   46.78791   638227.20
4267413.00   53.66683
638201.10   4267400.00   83.47969   638186.00
4267392.00   114.12172
638168.00   4267419.00   183.84702   638163.50
4267426.00   221.24688
638123.20   4267415.00   0.00000   638107.60
4267410.00   0.00000
638075.20   4267401.00   151.55610

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 002 ***
INCLUDING SOURCE(S):   002   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
637921.70	4267468.00	6.23891	638181.60	4267462.00	48.81709
638189.60	4267436.00	24.51706	638208.00	4267422.00	11.39728
637779.40	4267667.00	5.64338	638408.60	4267327.00	3.46449
638031.10	4267388.00	6.54408	638056.40	4267345.00	6.08414
638081.60	4267301.00	5.83404	638106.90	4267258.00	5.90889
638111.50	4267250.00	5.94999	638146.10	4267272.00	11.98683
638188.40	4267299.00	20.13616	638230.70	4267326.00	10.14805

638268.40	4267349.00	6.09262	638265.50	4267354.00	6.11112
638238.40	4267396.00	6.84375	638227.20	4267413.00	7.98094
638201.10	4267400.00	10.15083	638186.00	4267392.00	11.61863
638168.00	4267419.00	26.62722	638163.50	4267426.00	43.35558
638123.20	4267415.00	9.39671	638107.60	4267410.00	11.81796
638075.20	4267401.00	11.21771			

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 003 ***
INCLUDING SOURCE(S): 003 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
637921.70	4267468.00	13.75771	638181.60	4267462.00	250.84126
638189.60	4267436.00	389.92495	638208.00	4267422.00	561.49603
637779.40	4267667.00	7.53085	638408.60	4267327.00	17.58211
638031.10	4267388.00	31.74819	638056.40	4267345.00	33.36132
638081.60	4267301.00	32.53635	638106.90	4267258.00	31.93656
638111.50	4267250.00	31.09440	638146.10	4267272.00	51.67149
638188.40	4267299.00	98.10058	638230.70	4267326.00	112.53810
638268.40	4267349.00	83.31749	638265.50	4267354.00	89.46150

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         638238.40    4267396.00      230.02526                       638227.20
4267413.00      730.37413
         638201.10    4267400.00      896.38188                       638186.00
4267392.00      884.55234
         638168.00    4267419.00      421.30240                       638163.50
4267426.00      360.37218
         638123.20    4267415.00      217.21591                       638107.60
4267410.00      155.60961
         638075.20    4267401.00       70.86319

 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial
                              ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                             ***        16:14:59

                                        PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                   *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 004       ***
                                   INCLUDING SOURCE(S):     004         ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                            ** CONC OF OTHER    IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         637921.70    4267468.00       13.33668                       638181.60
4267462.00      288.08428
         638189.60    4267436.00      479.40195                       638208.00
4267422.00      758.29073
         637779.40    4267667.00        7.32309                       638408.60
4267327.00       17.71510
         638031.10    4267388.00       31.68506                       638056.40
4267345.00       34.89730
         638081.60    4267301.00       33.30732                       638106.90
4267258.00       34.06437
         638111.50    4267250.00       33.02389                       638146.10
4267272.00       57.45444
         638188.40    4267299.00      115.24549                       638230.70
4267326.00      132.53123
         638268.40    4267349.00       96.71531                       638265.50
4267354.00      104.88013
         638238.40    4267396.00      313.81817                       638227.20
4267413.00     1095.54605
```

                                *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 001   ***
                                    INCLUDING SOURCE(S):   001   ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF OTHER   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        637921.70   4267468.00   775.07461 (14120423)   638181.60
4267462.00   2839.19339 (15012109)
        638189.60   4267436.00   2868.87920 (15010222)   638208.00
4267422.00   2383.40100 (14122818)
        637779.40   4267667.00   379.19793 (16021103)   638408.60
4267327.00   647.87830 (16020120)
        638031.10   4267388.00   2073.41852 (17011203)   638056.40
4267345.00   2614.65353 (17120208)
        638081.60   4267301.00   2412.85444 (14051306)   638106.90
4267258.00   1839.16060 (15122709)
        638111.50   4267250.00   1751.04132 (14022408)   638146.10
4267272.00   1693.70690 (15020221)
        638188.40   4267299.00   1752.54627 (18120921)   638230.70
4267326.00   1608.02590 (17012521)
        638268.40   4267349.00   1288.73202 (16020523)   638265.50
4267354.00   1327.27620 (15020218)
        638238.40   4267396.00   1794.72822 (17120123)   638227.20
4267413.00   2020.03537 (18021208)
        638201.10   4267400.00   2613.74895 (15121922)   638186.00
4267392.00   3077.49990 (16122205)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 002 ***
INCLUDING SOURCE(S): 002 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
638168.00	4267419.00	3945.52374	(18010309)	638163.50	4267426.00	4186.45587	(15010222)
638123.20	4267415.00	0.00000	(00000000)	638107.60	4267410.00	0.00000	(00000000)
638075.20	4267401.00	3831.27634	(15120202)				

637921.70	4267468.00	282.77156	(15102117)	638181.60	4267462.00	634.42068	(17090321)
638189.60	4267436.00	680.17729	(18052719)	638208.00	4267422.00	518.78477	(16030223)
637779.40	4267667.00	192.81672	(14021107)	638408.60	4267327.00	230.57025	(17031418)
638031.10	4267388.00	548.28327	(18010317)	638056.40	4267345.00	659.72787	(16021502)
638081.60	4267301.00	580.02902	(14020220)	638106.90	4267258.00	442.10915	(16032819)
638111.50	4267250.00	436.54533	(16043022)	638146.10	4267272.00	432.52400	(18060119)
638188.40	4267299.00	448.67150	(18091918)	638230.70	4267326.00	398.83100	(17061720)
638268.40	4267349.00	320.87743	(17050221)	638265.50	4267354.00	323.10935	(17050221)
638238.40	4267396.00	419.35675	(17061706)	638227.20	4267413.00	451.15151	(14013009)
638201.10	4267400.00	610.11645	(16051019)	638186.00	4267392.00	696.41987	(15031718)
638168.00	4267419.00	870.94586	(16102317)	638163.50	4267426.00	899.26550	(14091818)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 003 ***
INCLUDING SOURCE(S): 003 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
638123.20	4267415.00	497.29325	(18082619)	638107.60	4267410.00	1025.12622	(18112819)
638075.20	4267401.00	930.63435	(17021702)				
637921.70	4267468.00	902.76134	(17040907)	638181.60	4267462.00	3127.55392	(16040607)
638189.60	4267436.00	4233.30230	(14091907)	638208.00	4267422.00	5336.63703	(15041007)
637779.40	4267667.00	547.98958	(14110508)	638408.60	4267327.00	1153.93563	(15020408)
638031.10	4267388.00	1878.93037	(15011909)	638056.40	4267345.00	3133.51624	(17122909)
638081.60	4267301.00	4091.28058	(16122409)	638106.90	4267258.00	3433.65874	(14011509)
638111.50	4267250.00	3308.08716	(14011509)	638146.10	4267272.00	2827.74226	(14011509)
638188.40	4267299.00	2660.14063	(18092107)	638230.70	4267326.00	3155.78507	(15040907)
638268.40	4267349.00	2625.94766	(15040807)	638265.50	4267354.00	2666.49979	(15040807)
638238.40	4267396.00	6857.90329	(14091007)	638227.20	4267413.00	12083.51301	(15030408)
638201.10	4267400.00	9821.64137	(15030408)	638186.00	4267392.00	8495.35400	(15030408)
638168.00	4267419.00	3882.53647	(14091907)	638163.50	4267426.00	3348.36022	(16040607)
638123.20	4267415.00	3368.23779	(14110508)	638107.60	4267410.00	3301.70351	(14110508)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 004 ***
INCLUDING SOURCE(S): 004 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
637921.70	4267468.00	1276.54058	(17040907)	638181.60	4267462.00	3856.70311	(14091907)
638189.60	4267436.00	5372.35796	(15041007)	638208.00	4267422.00	7654.23981	(15091807)
637779.40	4267667.00	777.88435	(14110508)	638408.60	4267327.00	1625.81208	(15020408)
638031.10	4267388.00	2517.55875	(14072506)	638056.40	4267345.00	4839.56447	(15010109)
638081.60	4267301.00	5879.15357	(14010709)	638106.90	4267258.00	4403.12402	(14011509)
638111.50	4267250.00	4143.36931	(14011509)	638146.10	4267272.00	3778.81493	(14011509)
638188.40	4267299.00	3155.32237	(18092107)	638230.70	4267326.00	3848.75561	(15040907)
638268.40	4267349.00	3648.09522	(15040907)	638265.50	4267354.00	3764.23189	(15040907)
638238.40	4267396.00	11279.59682	(14091007)	638227.20	4267413.00	23819.09290	(15030408)
638201.10	4267400.00	19458.41695	(15030408)	638186.00	4267392.00	16941.99461	(15030408)
638168.00	4267419.00	5382.93684	(14091907)	638163.50	4267426.00	4581.37862	(14091907)
638123.20	4267415.00	3762.10250	(14110508)	638107.60	4267410.00	3638.85683	(14110508)
638075.20	4267401.00	2988.17778	(17040907)				

 *** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43680 HRS) RESULTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

```
                        NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

001       1ST HIGHEST VALUE IS     221.24688 AT (  638163.50,  4267426.00,    11.40,
   11.40,    0.00)  DC
          2ND HIGHEST VALUE IS     183.84702 AT (  638168.00,  4267419.00,    11.21,
   11.21,    0.00)  DC
          3RD HIGHEST VALUE IS     151.55610 AT (  638075.20,  4267401.00,    12.19,
   12.19,    0.00)  DC
          4TH HIGHEST VALUE IS     135.48934 AT (  638181.60,  4267462.00,    11.67,
   11.67,    0.00)  DC
          5TH HIGHEST VALUE IS     114.12172 AT (  638186.00,  4267392.00,    10.29,
   10.29,    0.00)  DC
          6TH HIGHEST VALUE IS     107.04056 AT (  638189.60,  4267436.00,    11.08,
   11.08,    0.00)  DC
          7TH HIGHEST VALUE IS      83.47969 AT (  638201.10,  4267400.00,    10.12,
   10.12,    0.00)  DC
          8TH HIGHEST VALUE IS      71.99848 AT (  638208.00,  4267422.00,    10.42,
   10.42,    0.00)  DC
          9TH HIGHEST VALUE IS      63.99858 AT (  638188.40,  4267299.00,     8.58,
    8.58,    0.00)  DC
         10TH HIGHEST VALUE IS      55.92179 AT (  638056.40,  4267345.00,    12.12,
   12.12,    0.00)  DC

002       1ST HIGHEST VALUE IS      48.81709 AT (  638181.60,  4267462.00,    11.67,
   11.67,    0.00)  DC
          2ND HIGHEST VALUE IS      43.35558 AT (  638163.50,  4267426.00,    11.40,
   11.40,    0.00)  DC
          3RD HIGHEST VALUE IS      26.62722 AT (  638168.00,  4267419.00,    11.21,
   11.21,    0.00)  DC
          4TH HIGHEST VALUE IS      24.51706 AT (  638189.60,  4267436.00,    11.08,
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   11.08,    0.00)  DC
          5TH HIGHEST VALUE IS      20.13616 AT (  638188.40,  4267299.00,     8.58,
    8.58,    0.00)  DC
          6TH HIGHEST VALUE IS      11.98683 AT (  638146.10,  4267272.00,     8.80,
   11.28,    0.00)  DC
          7TH HIGHEST VALUE IS      11.81796 AT (  638107.60,  4267410.00,    12.05,
   12.05,    0.00)  DC
          8TH HIGHEST VALUE IS      11.61863 AT (  638186.00,  4267392.00,    10.29,
   10.29,    0.00)  DC
          9TH HIGHEST VALUE IS      11.39728 AT (  638208.00,  4267422.00,    10.42,
   10.42,    0.00)  DC
         10TH HIGHEST VALUE IS      11.21771 AT (  638075.20,  4267401.00,    12.19,
   12.19,    0.00)  DC

003       1ST HIGHEST VALUE IS     896.38188 AT (  638201.10,  4267400.00,    10.12,
   10.12,    0.00)  DC
          2ND HIGHEST VALUE IS     884.55234 AT (  638186.00,  4267392.00,    10.29,
   10.29,    0.00)  DC
          3RD HIGHEST VALUE IS     730.37413 AT (  638227.20,  4267413.00,     9.93,
    9.93,    0.00)  DC
          4TH HIGHEST VALUE IS     561.49603 AT (  638208.00,  4267422.00,    10.42,
   10.42,    0.00)  DC
          5TH HIGHEST VALUE IS     421.30240 AT (  638168.00,  4267419.00,    11.21,
   11.21,    0.00)  DC
          6TH HIGHEST VALUE IS     389.92495 AT (  638189.60,  4267436.00,    11.08,
   11.08,    0.00)  DC
          7TH HIGHEST VALUE IS     360.37218 AT (  638163.50,  4267426.00,    11.40,
   11.40,    0.00)  DC
          8TH HIGHEST VALUE IS     250.84126 AT (  638181.60,  4267462.00,    11.67,
   11.67,    0.00)  DC
          9TH HIGHEST VALUE IS     230.02526 AT (  638238.40,  4267396.00,     9.29,
    9.29,    0.00)  DC
         10TH HIGHEST VALUE IS     217.21591 AT (  638123.20,  4267415.00,    11.89,
   11.89,    0.00)  DC

004       1ST HIGHEST VALUE IS    1358.83090 AT (  638201.10,  4267400.00,    10.12,
   10.12,    0.00)  DC
          2ND HIGHEST VALUE IS    1335.06233 AT (  638186.00,  4267392.00,    10.29,
   10.29,    0.00)  DC
          3RD HIGHEST VALUE IS    1095.54605 AT (  638227.20,  4267413.00,     9.93,
    9.93,    0.00)  DC
          4TH HIGHEST VALUE IS     758.29073 AT (  638208.00,  4267422.00,    10.42,
   10.42,    0.00)  DC
          5TH HIGHEST VALUE IS     525.26514 AT (  638168.00,  4267419.00,    11.21,
   11.21,    0.00)  DC
          6TH HIGHEST VALUE IS     479.40195 AT (  638189.60,  4267436.00,    11.08,
   11.08,    0.00)  DC
          7TH HIGHEST VALUE IS     436.84648 AT (  638163.50,  4267426.00,    11.40,
   11.40,    0.00)  DC
          8TH HIGHEST VALUE IS     313.81817 AT (  638238.40,  4267396.00,     9.29,
```

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
001	HIGH	1ST HIGH VALUE IS	4186.45587	ON 15010222: AT (638163.50, 4267426.00, 11.40, 11.40, 0.00)	DC	
002	HIGH	1ST HIGH VALUE IS	1025.12622	ON 18112819: AT (638107.60, 4267410.00, 12.05, 12.05, 0.00)	DC	
003	HIGH	1ST HIGH VALUE IS	12083.51301	ON 15030408: AT (638227.20, 4267413.00, 9.93, 9.93, 0.00)	DC	
004	HIGH	1ST HIGH VALUE IS	23819.09290	ON 15030408: AT (638227.20, 4267413.00, 9.93, 9.93, 0.00)	DC	

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 1576 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 643 Calm Hours Identified

A Total of 933 Missing Hours Identified (2.14 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
CO W200 6 TITLES: Missing Parameter(s). No Options Specified For TITLETWO
ME W186 45 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 45 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

****
*** AERMOD Finishes Successfully ***
****

*HARP - HRACalc v22118 5/16/2025 5:15:12 PM - Cancer Risk - Input File: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIA

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RI	MMILK_RIS
1	SENSITIV	Little L	637921.7	4267468	0.0284	9901	DieselExhP	5.05E-06	1YrCancerDerived_Inh_FAH16	*	5.05E-06	0.00E+00	0.00E+00	0.00E+00
2	SENSITIV	SFR 1	638181.6	4267462	0.207801	9901	DieselExhP	3.70E-05	1YrCancerDerived_Inh_FAH16	*	3.70E-05	0.00E+00	0.00E+00	0.00E+00
3	SENSITIV	SFR 2	638189.6	4267436	0.171585	9901	DieselExhP	3.05E-05	1YrCancerDerived_Inh_FAH16	*	3.05E-05	0.00E+00	0.00E+00	0.00E+00
4	SENSITIV	SFR 3	638208	4267422	0.127121	9901	DieselExhP	2.26E-05	1YrCancerDerived_Inh_FAH16	*	2.26E-05	0.00E+00	0.00E+00	0.00E+00
5	SENSITIV	Apartmen	637779.4	4267667	0.013432	9901	DieselExhP	2.39E-06	1YrCancerDerived_Inh_FAH16	*	2.39E-06	0.00E+00	0.00E+00	0.00E+00
6	SENSITIV	School 1	638408.6	4267327	0.017751	9901	DieselExhP	3.16E-06	1YrCancerDerived_Inh_FAH16	*	3.16E-06	0.00E+00	0.00E+00	0.00E+00
7	PROPERTY		638031.1	4267388	0.078363	9901	DieselExhP	1.39E-05	1YrCancerDerived_Inh_FAH16	*	1.39E-05	0.00E+00	0.00E+00	0.00E+00
8	PROPERTY		638056.4	4267345	0.083079	9901	DieselExhP	1.48E-05	1YrCancerDerived_Inh_FAH16	*	1.48E-05	0.00E+00	0.00E+00	0.00E+00
9	PROPERTY		638081.6	4267301	0.073066	9901	DieselExhP	1.30E-05	1YrCancerDerived_Inh_FAH16	*	1.30E-05	0.00E+00	0.00E+00	0.00E+00
10	PROPERTY		638106.9	4267258	0.053757	9901	DieselExhP	9.56E-06	1YrCancerDerived_Inh_FAH16	*	9.56E-06	0.00E+00	0.00E+00	0.00E+00
11	PROPERTY		638111.5	4267250	0.050336	9901	DieselExhP	8.95E-06	1YrCancerDerived_Inh_FAH16	*	8.95E-06	0.00E+00	0.00E+00	0.00E+00
12	PROPERTY		638146.1	4267272	0.068332	9901	DieselExhP	1.22E-05	1YrCancerDerived_Inh_FAH16	*	1.22E-05	0.00E+00	0.00E+00	0.00E+00
13	PROPERTY		638188.4	4267299	0.097385	9901	DieselExhP	1.73E-05	1YrCancerDerived_Inh_FAH16	*	1.73E-05	0.00E+00	0.00E+00	0.00E+00
14	PROPERTY		638230.7	4267326	0.073892	9901	DieselExhP	1.31E-05	1YrCancerDerived_Inh_FAH16	*	1.31E-05	0.00E+00	0.00E+00	0.00E+00
15	PROPERTY		638268.4	4267349	0.049668	9901	DieselExhP	8.83E-06	1YrCancerDerived_Inh_FAH16	*	8.83E-06	0.00E+00	0.00E+00	0.00E+00
16	PROPERTY		638265.5	4267354	0.051581	9901	DieselExhP	9.17E-06	1YrCancerDerived_Inh_FAH16	*	9.17E-06	0.00E+00	0.00E+00	0.00E+00
17	PROPERTY		638238.4	4267396	0.077387	9901	DieselExhP	1.38E-05	1YrCancerDerived_Inh_FAH16	*	1.38E-05	0.00E+00	0.00E+00	0.00E+00
18	PROPERTY		638227.2	4267413	0.107197	9901	DieselExhP	1.91E-05	1YrCancerDerived_Inh_FAH16	*	1.91E-05	0.00E+00	0.00E+00	0.00E+00
19	PROPERTY		638201.1	4267400	0.157379	9901	DieselExhP	2.80E-05	1YrCancerDerived_Inh_FAH16	*	2.80E-05	0.00E+00	0.00E+00	0.00E+00
20	PROPERTY		638186	4267392	0.201727	9901	DieselExhP	3.59E-05	1YrCancerDerived_Inh_FAH16	*	3.59E-05	0.00E+00	0.00E+00	0.00E+00
21	PROPERTY		638168	4267419	0.285186	9901	DieselExhP	5.07E-05	1YrCancerDerived_Inh_FAH16	*	5.07E-05	0.00E+00	0.00E+00	0.00E+00
22	PROPERTY		638163.5	4267426	0.337521	9901	DieselExhP	6.00E-05	1YrCancerDerived_Inh_FAH16	*	6.00E-05	0.00E+00	0.00E+00	0.00E+00
23	PROPERTY		638123.2	4267415	0.008301	9901	DieselExhP	1.48E-06	1YrCancerDerived_Inh_FAH16	*	1.48E-06	0.00E+00	0.00E+00	0.00E+00
24	PROPERTY		638107.6	4267410	0.005933	9901	DieselExhP	1.06E-06	1YrCancerDerived_Inh_FAH16	*	1.06E-06	0.00E+00	0.00E+00	0.00E+00
25	PROPERTY		638075.2	4267401	0.224419	9901	DieselExhP	3.99E-05	1YrCancerDerived_Inh_FAH16	*	3.99E-05	0.00E+00	0.00E+00	0.00E+00

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WATER_RIS	FISH_RISK	CROP_RIS	BEEF_RISK	DAIRY_RIS	PIG_RISK	CHICKEN_	EGG_RISK	1ST_DRIVE	2ND_DRIVER
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	

*HARP - HRACalc v22118 5/16/2025 5:09:13 PM - Chronic Risk - Input File: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity Industrial\HARP\RAMONA INDUSTRIAL PROJECT\hra\ConstructionChronicH

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE'	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE'	RESP	SKIN	EYE	BONE/TEE	ENDO
1	SENSITIV	Little L	637921.7	4267468	0.0284	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	SENSITIV	SFR 1	638181.6	4267462	0.207801	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	SENSITIV	SFR 2	638189.6	4267436	0.171585	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.43E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	SENSITIV	SFR 3	638208	4267422	0.127121	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	SENSITIV	Apartmen	637779.4	4267667	0.013432	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	SENSITIV	School 1	638408.6	4267327	0.017751	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7	PROPERTY		638031.1	4267388	0.078363	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8	PROPERTY		638056.4	4267345	0.083079	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9	PROPERTY		638081.6	4267301	0.073066	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10	PROPERTY		638106.9	4267258	0.053757	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11	PROPERTY		638111.5	4267250	0.050336	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12	PROPERTY		638146.1	4267272	0.068332	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
13	PROPERTY		638188.4	4267299	0.097385	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
14	PROPERTY		638230.7	4267326	0.073892	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
15	PROPERTY		638268.4	4267349	0.049668	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
16	PROPERTY		638265.5	4267354	0.051581	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
17	PROPERTY		638238.4	4267396	0.077387	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18	PROPERTY		638227.2	4267413	0.107197	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
19	PROPERTY		638201.1	4267400	0.157379	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
20	PROPERTY		638186	4267392	0.201727	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.03E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
21	PROPERTY		638168	4267419	0.285186	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.70E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
22	PROPERTY		638163.5	4267426	0.337521	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.75E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
23	PROPERTY		638123.2	4267415	0.008301	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
24	PROPERTY		638107.6	4267410	0.005933	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
25	PROPERTY		638075.2	4267401	0.224419	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.49E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_D	MMILK_DO	WATER_DC	FISH_DOSE	CROP_DOS	BEEF_DOS	DAIRY_DO	PIG_DOSE	CHICKEN_I	EGG_DOSE	1ST_DRIVE	2ND_DRIVE	3RD_DRIVER
0.00E+00	0.00E+00	0.00E+00	*	2.84E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.72E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.27E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.34E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.78E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	7.84E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	8.31E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	7.31E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	5.38E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	5.03E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	6.83E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	9.74E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	7.39E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	4.97E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	5.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	7.74E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.07E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.57E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.02E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.85E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	3.38E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	8.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	5.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.24E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		

*HARP - HRACalc v22118 5/16/2025 5:19:39 PM - Cancer Risk - Input File: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity Industrial\HARP\RAMONA INDUS

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RI	MMILK_RIS
1	SENSITIV	Little L	637921.7	4267468	0.005956	9901	DieselExhP	1.06E-06	1YrCancerDerived_Inh_FA	*	1.06E-06	0.00E+00	0.00E+00	0.00E+00
2	SENSITIV	SFR 1	638181.6	4267462	0.048235	9901	DieselExhP	8.58E-06	1YrCancerDerived_Inh_FA	*	8.58E-06	0.00E+00	0.00E+00	0.00E+00
3	SENSITIV	SFR 2	638189.6	4267436	0.045523	9901	DieselExhP	8.10E-06	1YrCancerDerived_Inh_FA	*	8.10E-06	0.00E+00	0.00E+00	0.00E+00
4	SENSITIV	SFR 3	638208	4267422	0.042328	9901	DieselExhP	7.53E-06	1YrCancerDerived_Inh_FA	*	7.53E-06	0.00E+00	0.00E+00	0.00E+00
5	SENSITIV	Apartmen	637779.4	4267667	0.002848	9901	DieselExhP	5.06E-07	1YrCancerDerived_Inh_FA	*	5.06E-07	0.00E+00	0.00E+00	0.00E+00
6	SENSITIV	School 1	638408.6	4267327	0.003996	9901	DieselExhP	7.11E-07	1YrCancerDerived_Inh_FA	*	7.11E-07	0.00E+00	0.00E+00	0.00E+00
7	PROPERTY		638031.1	4267388	0.016247	9901	DieselExhP	2.89E-06	1YrCancerDerived_Inh_FA	*	2.89E-06	0.00E+00	0.00E+00	0.00E+00
8	PROPERTY		638056.4	4267345	0.01722	9901	DieselExhP	3.06E-06	1YrCancerDerived_Inh_FA	*	3.06E-06	0.00E+00	0.00E+00	0.00E+00
9	PROPERTY		638081.6	4267301	0.01524	9901	DieselExhP	2.71E-06	1YrCancerDerived_Inh_FA	*	2.71E-06	0.00E+00	0.00E+00	0.00E+00
10	PROPERTY		638106.9	4267258	0.011459	9901	DieselExhP	2.04E-06	1YrCancerDerived_Inh_FA	*	2.04E-06	0.00E+00	0.00E+00	0.00E+00
11	PROPERTY		638111.5	4267250	0.010766	9901	DieselExhP	1.91E-06	1YrCancerDerived_Inh_FA	*	1.91E-06	0.00E+00	0.00E+00	0.00E+00
12	PROPERTY		638146.1	4267272	0.01491	9901	DieselExhP	2.65E-06	1YrCancerDerived_Inh_FA	*	2.65E-06	0.00E+00	0.00E+00	0.00E+00
13	PROPERTY		638188.4	4267299	0.022014	9901	DieselExhP	3.92E-06	1YrCancerDerived_Inh_FA	*	3.92E-06	0.00E+00	0.00E+00	0.00E+00
14	PROPERTY		638230.7	4267326	0.017877	9901	DieselExhP	3.18E-06	1YrCancerDerived_Inh_FA	*	3.18E-06	0.00E+00	0.00E+00	0.00E+00
15	PROPERTY		638268.4	4267349	0.012249	9901	DieselExhP	2.18E-06	1YrCancerDerived_Inh_FA	*	2.18E-06	0.00E+00	0.00E+00	0.00E+00
16	PROPERTY		638265.5	4267354	0.012814	9901	DieselExhP	2.28E-06	1YrCancerDerived_Inh_FA	*	2.28E-06	0.00E+00	0.00E+00	0.00E+00
17	PROPERTY		638238.4	4267396	0.022285	9901	DieselExhP	3.96E-06	1YrCancerDerived_Inh_FA	*	3.96E-06	0.00E+00	0.00E+00	0.00E+00
18	PROPERTY		638227.2	4267413	0.043994	9901	DieselExhP	7.82E-06	1YrCancerDerived_Inh_FA	*	7.82E-06	0.00E+00	0.00E+00	0.00E+00
19	PROPERTY		638201.1	4267400	0.059065	9901	DieselExhP	1.05E-05	1YrCancerDerived_Inh_FA	*	1.05E-05	0.00E+00	0.00E+00	0.00E+00
20	PROPERTY		638186	4267392	0.067326	9901	DieselExhP	1.20E-05	1YrCancerDerived_Inh_FA	*	1.20E-05	0.00E+00	0.00E+00	0.00E+00
21	PROPERTY		638168	4267419	0.068669	9901	DieselExhP	1.22E-05	1YrCancerDerived_Inh_FA	*	1.22E-05	0.00E+00	0.00E+00	0.00E+00
22	PROPERTY		638163.5	4267426	0.076959	9901	DieselExhP	1.37E-05	1YrCancerDerived_Inh_FA	*	1.37E-05	0.00E+00	0.00E+00	0.00E+00
23	PROPERTY		638123.2	4267415	0.008301	9901	DieselExhP	1.48E-06	1YrCancerDerived_Inh_FA	*	1.48E-06	0.00E+00	0.00E+00	0.00E+00
24	PROPERTY		638107.6	4267410	0.005933	9901	DieselExhP	1.06E-06	1YrCancerDerived_Inh_FA	*	1.06E-06	0.00E+00	0.00E+00	0.00E+00
25	PROPERTY		638075.2	4267401	0.045932	9901	DieselExhP	8.17E-06	1YrCancerDerived_Inh_FA	*	8.17E-06	0.00E+00	0.00E+00	0.00E+00

STRIAL PROJECT\hra\ConstructionMITIGATIONHRAInput.hra

WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_I	EGG_RISK	1ST_DRIVEI	2ND_DRIVER
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	

APPENDIX C
HRA Operations Worksheets

```
**AERMOD INPUT FILE CREATED BY HARP VERSION 22118
**DATE CREATED: 5/16/2025 5:49:30 PM
**
CO STARTING
   TITLEONE  Ramona Industrial Operations
   TITLETWO
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   POLLUTID OTHER
   RUNORNOT RUN
   ERRORFIL "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\Operations\Ramona Industrial Operations\Ramona
Industrial Operations_AERMOD.ERR"
CO FINISHED
**
**SOURCES
SO STARTING
**SOURCES LOCATIONS
   LOCATION 001 POINT  638122.4  4267392  11.93
   LOCATION 002 LINE  638229.5  4267409  638127.2  4267351  9.8
**SOURCES PARAMETERS
   SRCPARAM 001 1 3.84 366  50  0.1
   SRCPARAM 002 0.00304 3.66 2.8 3.66
SO BUILDHGT 001        11.28   11.28    0.00    0.00    0.00    0.00
SO BUILDHGT 001         0.00    0.00    0.00    0.00   11.28   11.28
SO BUILDHGT 001        11.28    0.00    0.00    0.00    0.00   11.28
SO BUILDHGT 001        11.28   11.28    0.00    0.00    0.00    0.00
SO BUILDHGT 001         0.00    0.00    0.00    0.00   11.28   11.28
SO BUILDHGT 001        11.28   11.28   11.28   11.28   11.28   11.28
SO BUILDWID 001       135.21  125.80    0.00    0.00    0.00    0.00
SO BUILDWID 001         0.00    0.00    0.00    0.00  102.69  114.64
SO BUILDWID 001       123.10    0.00    0.00    0.00    0.00  140.50
SO BUILDWID 001       135.21  125.80    0.00    0.00    0.00    0.00
SO BUILDWID 001         0.00    0.00    0.00    0.00  102.69  114.64
SO BUILDWID 001       123.10  127.82  130.78  138.25  141.53  140.50
SO BUILDLEN 001        88.13  102.69    0.00    0.00    0.00    0.00
SO BUILDLEN 001         0.00    0.00    0.00    0.00  125.80  112.58
SO BUILDLEN 001        95.93    0.00    0.00    0.00    0.00   79.60
SO BUILDLEN 001        88.13  102.69    0.00    0.00    0.00    0.00
SO BUILDLEN 001         0.00    0.00    0.00    0.00  125.80  112.58
SO BUILDLEN 001        95.93   76.37   55.98   62.85   68.65   79.60
SO XBADJ    001       -96.02  -92.63    0.00    0.00    0.00    0.00
SO XBADJ    001         0.00    0.00    0.00    0.00   -4.33    7.43
SO XBADJ    001        18.96    0.00    0.00    0.00    0.00   16.90
SO XBADJ    001         7.89  -10.06    0.00    0.00    0.00    0.00
SO XBADJ    001         0.00    0.00    0.00    0.00 -121.47 -120.01
SO XBADJ    001      -114.89 -106.29  -95.81  -95.96  -94.04  -96.50
SO YBADJ    001       -51.65  -58.57    0.00    0.00    0.00    0.00
SO YBADJ    001         0.00    0.00    0.00    0.00  -41.28  -29.10
SO YBADJ    001       -16.04    0.00    0.00    0.00    0.00   43.15
```

```
SO YBADJ    001        51.65   58.57    0.00    0.00    0.00    0.00
SO YBADJ    001         0.00    0.00    0.00    0.00   41.28   29.10
SO YBADJ    001        16.04    2.49  -11.02  -22.52  -33.34  -43.15
   SRCGROUP 001 001
   SRCGROUP 002 002
SO FINISHED
**
**RECEPTORS
RE STARTING
   INCLUDED "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\Operations\Ramona Industrial Operations\Ramona
Industrial Operations_AERMAP.REC"
RE FINISHED
**
**MET PATHWAY
ME STARTING
ME SURFFILE "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\14-18.SFC"
ME PROFFILE "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona
Opportunity Industrial\HARP\14-18.PFL"
ME SURFDATA 23232 2014
ME UAIRDATA 23230 2014
ME SITEDATA 0 2014
ME PROFBASE 7.2
ME FINISHED
**
**OUTPUT PATHWAY
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   PLOTFILE 1 001 1ST "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003
Ramona Opportunity Industrial\HARP\Operations\Ramona Industrial
Operations\plt\MAX1HR001.PLT" 31
   PLOTFILE 1 002 1ST "D:\Extra HDD Files\JK Consulting Group Project Files\2025-003
Ramona Opportunity Industrial\HARP\Operations\Ramona Industrial
Operations\plt\MAX1HR002.PLT" 32
   PLOTFILE PERIOD 001 "D:\Extra HDD Files\JK Consulting Group Project
Files\2025-003 Ramona Opportunity Industrial\HARP\Operations\Ramona Industrial
Operations\plt\PERIOD001.PLT" 33
   PLOTFILE PERIOD 002 "D:\Extra HDD Files\JK Consulting Group Project
Files\2025-003 Ramona Opportunity Industrial\HARP\Operations\Ramona Industrial
Operations\plt\PERIOD002.PLT" 34
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
```

```
 A Total of            3 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W200       6       TITLES: Missing Parameter(s). No Options Specified For
 TITLETWO
 ME W186      69       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
 ME W187      69       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial Operations
                              ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                              ***        17:49:36

                                        PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                                ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
```

```
 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  OTHER

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:      2 Source(s);       2 Source Group(s); and      25
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      1 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  19191

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     7.20 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                 ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE X (METERS)	BASE Y (METERS)	STACK ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
001	0	0.10000E+01	638122.4	4267392.0	11.9	3.84	366.00	50.00	0.10	YES	NO	NO	

*** LINE SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	FIRST COORD X (METERS)	FIRST COORD Y (METERS)	SECOND COORD X (METERS)	SECOND COORD Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	WIDTH OF LINE (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
002	0	0.30400E-02	638229.5	4267409.0	638127.2	4267351.0	9.8	3.66	2.80	3.66	NO	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
001	001 ,
002	002 ,

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: 001

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	11.3,	135.2,	88.1,	-96.0,	-51.6,	2	11.3,	125.8,	102.7,	-92.6,	-58.6,
3	0.0,	0.0,	0.0,	0.0,	0.0,	4	0.0,	0.0,	0.0,	0.0,	0.0,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	0.0,	0.0,	0.0,	0.0,	0.0,	8	0.0,	0.0,	0.0,	0.0,	0.0,
9	0.0,	0.0,	0.0,	0.0,	0.0,	10	0.0,	0.0,	0.0,	0.0,	0.0,
11	11.3,	102.7,	125.8,	-4.3,	-41.3,	12	11.3,	114.6,	112.6,	7.4,	-29.1,
13	11.3,	123.1,	95.9,	19.0,	-16.0,	14	0.0,	0.0,	0.0,	0.0,	0.0,
15	0.0,	0.0,	0.0,	0.0,	0.0,	16	0.0,	0.0,	0.0,	0.0,	0.0,
17	0.0,	0.0,	0.0,	0.0,	0.0,	18	11.3,	140.5,	79.6,	16.9,	

```
 43.1,
  19   11.3,  135.2,   88.1,    7.9,   51.6,     20   11.3,  125.8,  102.7,  -10.1,
 58.6,
  21    0.0,    0.0,    0.0,    0.0,    0.0,     22    0.0,    0.0,    0.0,    0.0,
  0.0,
  23    0.0,    0.0,    0.0,    0.0,    0.0,     24    0.0,    0.0,    0.0,    0.0,
  0.0,
  25    0.0,    0.0,    0.0,    0.0,    0.0,     26    0.0,    0.0,    0.0,    0.0,
  0.0,
  27    0.0,    0.0,    0.0,    0.0,    0.0,     28    0.0,    0.0,    0.0,    0.0,
  0.0,
  29   11.3,  102.7,  125.8, -121.5,   41.3,     30   11.3,  114.6,  112.6, -120.0,
 29.1,
  31   11.3,  123.1,   95.9, -114.9,   16.0,     32   11.3,  127.8,   76.4, -106.3,
  2.5,
  33   11.3,  130.8,   56.0,  -95.8,  -11.0,     34   11.3,  138.2,   62.8,  -96.0,
-22.5,
  35   11.3,  141.5,   68.6,  -94.0,  -33.3,     36   11.3,  140.5,   79.6,  -96.5,
-43.1,

 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial Operations
                          ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                         ***       17:49:36

                                    PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                        (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                    (METERS)

     ( 637921.7, 4267468.0,      12.2,      12.2,       0.0);         ( 638181.6,
4267462.0,      11.7,      11.7,       0.0);
     ( 638189.6, 4267436.0,      11.1,      11.1,       0.0);         ( 638208.0,
4267422.0,      10.4,      10.4,       0.0);
     ( 637779.4, 4267667.0,      12.2,      12.2,       0.0);         ( 638408.6,
4267327.0,       8.9,       8.9,       0.0);
     ( 638031.1, 4267388.0,      12.1,      12.1,       0.0);         ( 638056.4,
4267345.0,      12.1,      12.1,       0.0);
     ( 638081.6, 4267301.0,      12.1,      12.1,       0.0);         ( 638106.9,
4267258.0,      11.9,      11.9,       0.0);
     ( 638111.5, 4267250.0,      12.0,      12.0,       0.0);         ( 638146.1,
4267272.0,       8.8,      11.3,       0.0);
     ( 638188.4, 4267299.0,       8.6,       8.6,       0.0);         ( 638230.7,
4267326.0,       8.3,       8.3,       0.0);
     ( 638268.4, 4267349.0,       7.8,       7.8,       0.0);         ( 638265.5,
4267354.0,       7.8,       7.8,       0.0);
     ( 638238.4, 4267396.0,       9.3,       9.3,       0.0);         ( 638227.2,
4267413.0,       9.9,       9.9,       0.0);
```

(638201.1, 4267400.0, 10.1, 10.1, 0.0); (638186.0, 4267392.0, 10.3, 10.3, 0.0);
(638168.0, 4267419.0, 11.2, 11.2, 0.0); (638163.5, 4267426.0, 11.4, 11.4, 0.0);
(638123.2, 4267415.0, 11.9, 11.9, 0.0); (638107.6, 4267410.0, 12.1, 12.1, 0.0);
(638075.2, 4267401.0, 12.2, 12.2, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity Met Version: 19191
Profile file: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity
Surface format: FREE

Profile format: FREE

Surface station no.: 23232 Upper air station no.: 23230
Name: UNKNOWN Name: UNKNOWN

Year: 2014 Year: 2014

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
14	01	01	1	01	-1.4	0.061	-9.000	-9.000	-999.	36.	14.2	0.04	0.93	1.00	0.62	152.	10.1	274.9	2.0
14	01	01	1	02	-4.9	0.096	-9.000	-9.000	-999.	72.	16.7	0.16	0.93	1.00	1.08	107.	10.1	274.2	2.0
14	01	01	1	03	-5.3	0.100	-9.000	-9.000	-999.	76.	17.3	0.16	0.93	1.00	1.13	95.	10.1	274.2	2.0
14	01	01	1	04	-2.4	0.075	-9.000	-9.000	-999.	49.	15.4	0.16	0.93	1.00	0.70	117.	10.1	273.8	2.0
14	01	01	1	05	-3.8	0.084	-9.000	-9.000	-999.	59.	14.5	0.11	0.93	1.00	1.03	120.	10.1	273.1	2.0
14	01	01	1	06	-2.3	0.072	-9.000	-9.000	-999.	46.	14.5	0.11	0.93	1.00	0.74	128.	10.1	273.1	2.0
14	01	01	1	07	-1.3	0.061	-9.000	-9.000	-999.	36.	16.0	0.05	0.93	1.00	0.53	232.	10.1	273.1	2.0
14	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.08	0.93	0.76	0.00	0.	10.1	273.1	2.0
14	01	01	1	09	-1.5	0.085	-9.000	-9.000	-999.	60.	38.3	0.11	0.93	0.40	1.03	133.	10.1	278.1	2.0
14	01	01	1	10	40.2	0.170	0.461	0.019	88.	168.	-11.2	0.11	0.93	0.28	1.50	122.	10.1	281.4	2.0
14	01	01	1	11	74.7	0.195	0.704	0.017	170.	206.	-9.0	0.11	0.93	0.23	1.67	140.	10.1	283.8	2.0
14	01	01	1	12	94.4	0.181	0.832	0.016	222.	184.	-5.7	0.04	0.93	0.22	1.88	157.	10.1	286.4	2.0

```
 14 01 01   1 13   97.3  0.170  0.891  0.014  265.  168.     -4.6  0.04   0.93
0.22    1.71  173.   10.1  287.5    2.0
 14 01 01   1 14   84.1  0.178  0.894  0.013  309.  181.     -6.1  0.04   0.93
0.23    1.81  202.   10.1  289.2    2.0
 14 01 01   1 15   54.8  0.119  0.824  0.012  371.   99.     -2.8  0.04   0.93
0.26    1.08  189.   10.1  289.9    2.0
 14 01 01   1 16   12.2  0.060  0.506  0.012  384.   36.     -1.6  0.04   0.93
0.35    0.52  169.   10.1  288.8    2.0
 14 01 01   1 17   -2.3  0.067 -9.000 -9.000 -999.   42.     11.9  0.04   0.93
0.60    0.96  173.   10.1  286.4    2.0
 14 01 01   1 18   -1.7  0.066 -9.000 -9.000 -999.   40.     15.2  0.09   0.93
1.00    0.62  252.   10.1  283.8    2.0
 14 01 01   1 19   -1.7  0.069 -9.000 -9.000 -999.   43.     17.0  0.15   0.93
1.00    0.55   79.   10.1  281.4    2.0
 14 01 01   1 20 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.08   0.93
1.00    0.00    0.   10.1  280.4    2.0
 14 01 01   1 21   -1.7  0.062 -9.000 -9.000 -999.   37.     13.4  0.04   0.93
1.00    0.69    7.   10.1  279.2    2.0
 14 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.08   0.93
1.00    0.00    0.   10.1  278.1    2.0
 14 01 01   1 23   -1.3  0.060 -9.000 -9.000 -999.   35.     14.8  0.04   0.93
1.00    0.58   28.   10.1  277.5    2.0
 14 01 01   1 24   -2.2  0.067 -9.000 -9.000 -999.   42.     12.2  0.04   0.93
1.00    0.87   24.   10.1  277.5    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 14 01 01 01   10.1 1  152.    0.62   274.9   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial Operations
                          ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                         ***        17:49:36

                                    PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 001        ***
                                    INCLUDING SOURCE(S):     001         ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF OTHER    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
```

```
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -
         637921.70    4267468.00        8.20697                      638181.60
4267462.00       47.62413
         638189.60    4267436.00       23.88821                      638208.00
4267422.00       10.65716
         637779.40    4267667.00        7.10836                      638408.60
4267327.00        4.23207
         638031.10    4267388.00        6.52980                      638056.40
4267345.00        6.21747
         638081.60    4267301.00       14.09169                      638106.90
4267258.00       22.95803
         638111.50    4267250.00       18.51427                      638146.10
4267272.00       18.85573
         638188.40    4267299.00       27.38167                      638230.70
4267326.00       22.52488
         638268.40    4267349.00       13.54181                      638265.50
4267354.00       12.48260
         638238.40    4267396.00        7.28383                      638227.20
4267413.00        7.58353
         638201.10    4267400.00       10.29297                      638186.00
4267392.00       14.73737
         638168.00    4267419.00       26.43910                      638163.50
4267426.00       46.02586
         638123.20    4267415.00       45.97558                      638107.60
4267410.00       32.95134
         638075.20    4267401.00       13.97798
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                               *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 002       ***
                                   INCLUDING SOURCE(S):     002         ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF OTHER    IN MICROGRAMS/M**3
                     **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

- -
637921.70 4267468.00 13.75771 638181.60
4267462.00 250.84126
638189.60 4267436.00 389.92495 638208.00
4267422.00 561.49603
637779.40 4267667.00 7.53085 638408.60
4267327.00 17.58211
638031.10 4267388.00 31.74819 638056.40
4267345.00 33.36132
638081.60 4267301.00 32.53635 638106.90
4267258.00 31.93656
638111.50 4267250.00 31.09440 638146.10
4267272.00 51.67149
638188.40 4267299.00 98.10058 638230.70
4267326.00 112.53810
638268.40 4267349.00 83.31749 638265.50
4267354.00 89.46150
638238.40 4267396.00 230.02526 638227.20
4267413.00 730.37413
638201.10 4267400.00 896.38188 638186.00
4267392.00 884.55234
638168.00 4267419.00 421.30240 638163.50
4267426.00 360.37218
638123.20 4267415.00 217.21591 638107.60
4267410.00 155.60961
638075.20 4267401.00 70.86319

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 001 ***
INCLUDING SOURCE(S): 001 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF OTHER IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
- -
637921.70 4267468.00 673.58093 (14072406) 638181.60

4267462.00   634.42068 (17090321)
        638189.60   4267436.00   680.17729 (18052719)   638208.00
4267422.00   518.78477 (16030223)
        637779.40   4267667.00   476.24935 (14112417)   638408.60
4267327.00   492.78463 (14100301)
        638031.10   4267388.00   548.28327 (18010317)   638056.40
4267345.00   659.72787 (16021502)
        638081.60   4267301.00   1229.63711 (15113002)   638106.90
4267258.00   1584.13607 (14110422)
        638111.50   4267250.00   1254.60554 (14110422)   638146.10
4267272.00   977.45694 (15112820)
        638188.40   4267299.00   811.95194 (14100302)   638230.70
4267326.00   946.71330 (14102718)
        638268.40   4267349.00   1009.44202 (14100301)   638265.50
4267354.00   968.81517 (14100301)
        638238.40   4267396.00   419.35675 (17061706)   638227.20
4267413.00   451.15151 (14013009)
        638201.10   4267400.00   610.11645 (16051019)   638186.00
4267392.00   696.41987 (15031718)
        638168.00   4267419.00   870.94586 (16102317)   638163.50
4267426.00   899.26550 (14091818)
        638123.20   4267415.00   912.53201 (14102512)   638107.60
4267410.00   728.38280 (14022810)
        638075.20   4267401.00   930.63435 (17021702)

 *** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

                                *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 002   ***
                                    INCLUDING SOURCE(S):   002   ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF OTHER   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        637921.70   4267468.00   902.76134 (17040907)   638181.60
4267462.00   3127.55392 (16040607)
        638189.60   4267436.00   4233.30230 (14091907)   638208.00

4267422.00   5336.63703 (15041007)
        637779.40   4267667.00   547.98958 (14110508)   638408.60
4267327.00   1153.93563 (15020408)
        638031.10   4267388.00   1878.93037 (15011909)   638056.40
4267345.00   3133.51624 (17122909)
        638081.60   4267301.00   4091.28058 (16122409)   638106.90
4267258.00   3433.65874 (14011509)
        638111.50   4267250.00   3308.08716 (14011509)   638146.10
4267272.00   2827.74226 (14011509)
        638188.40   4267299.00   2660.14063 (18092107)   638230.70
4267326.00   3155.78507 (15040907)
        638268.40   4267349.00   2625.94766 (15040807)   638265.50
4267354.00   2666.49979 (15040807)
        638238.40   4267396.00   6857.90329 (14091007)   638227.20
4267413.00   12083.51301 (15030408)
        638201.10   4267400.00   9821.64137 (15030408)   638186.00
4267392.00   8495.35400 (15030408)
        638168.00   4267419.00   3882.53647 (14091907)   638163.50
4267426.00   3348.36022 (16040607)
        638123.20   4267415.00   3368.23779 (14110508)   638107.60
4267410.00   3301.70351 (14110508)
        638075.20   4267401.00   2588.44036 (17040907)

 *** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

                                      *** THE SUMMARY OF MAXIMUM PERIOD (43680
HRS) RESULTS ***

                                   ** CONC OF OTHER   IN MICROGRAMS/M**3
             **

                      NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,
ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - - - -

001   1ST HIGHEST VALUE IS   47.62413 AT (638181.60, 4267462.00,   11.67,
   11.67,   0.00) DC
          2ND HIGHEST VALUE IS   46.02586 AT (638163.50, 4267426.00,   11.40,
   11.40,   0.00) DC
          3RD HIGHEST VALUE IS   45.97558 AT (638123.20, 4267415.00,   11.89,

```
   11.89,    0.00)  DC
          4TH HIGHEST VALUE IS      32.95134 AT (  638107.60,  4267410.00,    12.05,
   12.05,    0.00)  DC
          5TH HIGHEST VALUE IS      27.38167 AT (  638188.40,  4267299.00,     8.58,
    8.58,    0.00)  DC
          6TH HIGHEST VALUE IS      26.43910 AT (  638168.00,  4267419.00,    11.21,
   11.21,    0.00)  DC
          7TH HIGHEST VALUE IS      23.88821 AT (  638189.60,  4267436.00,    11.08,
   11.08,    0.00)  DC
          8TH HIGHEST VALUE IS      22.95803 AT (  638106.90,  4267258.00,    11.85,
   11.85,    0.00)  DC
          9TH HIGHEST VALUE IS      22.52488 AT (  638230.70,  4267326.00,     8.29,
    8.29,    0.00)  DC
         10TH HIGHEST VALUE IS      18.85573 AT (  638146.10,  4267272.00,     8.80,
   11.28,    0.00)  DC

002       1ST HIGHEST VALUE IS     896.38188 AT (  638201.10,  4267400.00,    10.12,
   10.12,    0.00)  DC
          2ND HIGHEST VALUE IS     884.55234 AT (  638186.00,  4267392.00,    10.29,
   10.29,    0.00)  DC
          3RD HIGHEST VALUE IS     730.37413 AT (  638227.20,  4267413.00,     9.93,
    9.93,    0.00)  DC
          4TH HIGHEST VALUE IS     561.49603 AT (  638208.00,  4267422.00,    10.42,
   10.42,    0.00)  DC
          5TH HIGHEST VALUE IS     421.30240 AT (  638168.00,  4267419.00,    11.21,
   11.21,    0.00)  DC
          6TH HIGHEST VALUE IS     389.92495 AT (  638189.60,  4267436.00,    11.08,
   11.08,    0.00)  DC
          7TH HIGHEST VALUE IS     360.37218 AT (  638163.50,  4267426.00,    11.40,
   11.40,    0.00)  DC
          8TH HIGHEST VALUE IS     250.84126 AT (  638181.60,  4267462.00,    11.67,
   11.67,    0.00)  DC
          9TH HIGHEST VALUE IS     230.02526 AT (  638238.40,  4267396.00,     9.29,
    9.29,    0.00)  DC
         10TH HIGHEST VALUE IS     217.21591 AT (  638123.20,  4267415.00,    11.89,
   11.89,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↟ *** AERMOD - VERSION 21112  ***   ***  Ramona Industrial Operations
                        ***        05/16/25
 *** AERMET - VERSION  19191 ***   ***
                       ***        17:49:36

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*
```

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE	CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
001	HIGH	1ST HIGH VALUE IS	1584.13607	ON 14110422: AT (638106.90, 4267258.00, 11.85, 11.85, 0.00)	DC	
002	HIGH	1ST HIGH VALUE IS	12083.51301	ON 15030408: AT (638227.20, 4267413.00, 9.93, 9.93, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 1576 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 643 Calm Hours Identified

A Total of 933 Missing Hours Identified (2.14 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

```
   ********   WARNING MESSAGES   ********
CO W200        6       TITLES: Missing Parameter(s). No Options Specified For
TITLETWO
ME W186       69       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
    0.50
ME W187       69       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

*HARP - HRACalc v22118 5/16/2025 5:56:22 PM - Cancer Risk - Input File: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity Industrial\HARP\Operations\Ramona Industrial O

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE'	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK
1	SENSITIV	Little L	637921.7	4267468	6.09E-06	9901	DieselExhP	6.01E-09	70YrCancerDerived	*	6.01E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	SENSITIV	SFR 1	638181.6	4267462	8.92E-05	9901	DieselExhP	8.80E-08	70YrCancerDerived	*	8.80E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	SENSITIV	SFR 2	638189.6	4267436	0.000128	9901	DieselExhP	1.26E-07	70YrCancerDerived	*	1.26E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	SENSITIV	SFR 3	638208	4267422	0.000179	9901	DieselExhP	1.77E-07	70YrCancerDerived	*	1.77E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	SENSITIV	Apartmen	637779.4	4267667	3.89E-06	9901	DieselExhP	3.84E-09	70YrCancerDerived	*	3.84E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	SENSITIV	School 1	638408.6	4267327	6.45E-06	9901	DieselExhP	6.36E-09	70YrCancerDerived	*	6.36E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7	PROPERTY		638031.1	4267388	1.14E-05	9901	DieselExhP	1.12E-08	70YrCancerDerived	*	1.12E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8	PROPERTY		638056.4	4267345	1.18E-05	9901	DieselExhP	1.17E-08	70YrCancerDerived	*	1.17E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9	PROPERTY		638081.6	4267301	1.33E-05	9901	DieselExhP	1.31E-08	70YrCancerDerived	*	1.31E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10	PROPERTY		638106.9	4267258	1.50E-05	9901	DieselExhP	1.48E-08	70YrCancerDerived	*	1.48E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11	PROPERTY		638111.5	4267250	1.38E-05	9901	DieselExhP	1.36E-08	70YrCancerDerived	*	1.36E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12	PROPERTY		638146.1	4267272	2.03E-05	9901	DieselExhP	2.00E-08	70YrCancerDerived	*	2.00E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
13	PROPERTY		638188.4	4267299	3.68E-05	9901	DieselExhP	3.63E-08	70YrCancerDerived	*	3.63E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
14	PROPERTY		638230.7	4267326	4.03E-05	9901	DieselExhP	3.97E-08	70YrCancerDerived	*	3.97E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
15	PROPERTY		638268.4	4267349	2.92E-05	9901	DieselExhP	2.87E-08	70YrCancerDerived	*	2.87E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
16	PROPERTY		638265.5	4267354	3.09E-05	9901	DieselExhP	3.04E-08	70YrCancerDerived	*	3.04E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
17	PROPERTY		638238.4	4267396	7.40E-05	9901	DieselExhP	7.30E-08	70YrCancerDerived	*	7.30E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18	PROPERTY		638227.2	4267413	0.000232	9901	DieselExhP	2.29E-07	70YrCancerDerived	*	2.29E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
19	PROPERTY		638201.1	4267400	0.000285	9901	DieselExhP	2.81E-07	70YrCancerDerived	*	2.81E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
20	PROPERTY		638186	4267392	0.000282	9901	DieselExhP	2.78E-07	70YrCancerDerived	*	2.78E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
21	PROPERTY		638168	4267419	0.000138	9901	DieselExhP	1.36E-07	70YrCancerDerived	*	1.36E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
22	PROPERTY		638163.5	4267426	0.000123	9901	DieselExhP	1.22E-07	70YrCancerDerived	*	1.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
23	PROPERTY		638123.2	4267415	7.83E-05	9901	DieselExhP	7.72E-08	70YrCancerDerived	*	7.72E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
24	PROPERTY		638107.6	4267410	5.61E-05	9901	DieselExhP	5.53E-08	70YrCancerDerived	*	5.53E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
25	PROPERTY		638075.2	4267401	2.53E-05	9901	DieselExhP	2.50E-08	70YrCancerDerived	*	2.50E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

perations\hra\Project OperationsHRAInput.hra

CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_I	EGG_RISK	1ST_DRIVE	2ND_DRIVER
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	

*HARP - HRACalc v22118 5/16/2025 5:59:57 PM - Chronic Risk - Input File: D:\Extra HDD Files\JK Consulting Group Project Files\2025-003 Ramona Opportunity Industrial\HARP\Operations\Ramona Industrial Operations\hra\Project Ope

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE'	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE'	RESP	SKIN	EYE	BONE/TEE	ENDO
1	SENSITIV	Little L	637921.7	4267468	6.09E-06	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	SENSITIV	SFR 1	638181.6	4267462	8.92E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	SENSITIV	SFR 2	638189.6	4267436	0.000128	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	SENSITIV	SFR 3	638208	4267422	0.000179	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	SENSITIV	Apartmen	637779.4	4267667	3.89E-06	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.79E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	SENSITIV	School 1	638408.6	4267327	6.45E-06	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7	PROPERTY		638031.1	4267388	1.14E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8	PROPERTY		638056.4	4267345	1.18E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9	PROPERTY		638081.6	4267301	1.33E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10	PROPERTY		638106.9	4267258	1.50E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11	PROPERTY		638111.5	4267250	1.38E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12	PROPERTY		638146.1	4267272	2.03E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
13	PROPERTY		638188.4	4267299	3.68E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
14	PROPERTY		638230.7	4267326	4.03E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
15	PROPERTY		638268.4	4267349	2.92E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
16	PROPERTY		638265.5	4267354	3.09E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
17	PROPERTY		638238.4	4267396	7.40E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18	PROPERTY		638227.2	4267413	0.000232	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.64E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
19	PROPERTY		638201.1	4267400	0.000285	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.69E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
20	PROPERTY		638186	4267392	0.000282	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.64E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
21	PROPERTY		638168	4267419	0.000138	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
22	PROPERTY		638163.5	4267426	0.000123	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
23	PROPERTY		638123.2	4267415	7.83E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
24	PROPERTY		638107.6	4267410	5.61E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
25	PROPERTY		638075.2	4267401	2.53E-05	9901	DieselExhP	NonCancei	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00

rationsChronicHRAInput.hra

BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_D	MMILK_DO	WATER_DC	FISH_DOSE	CROP_DOS	BEEF_DOS	DAIRY_DO	PIG_DOSE	CHICKEN_I	EGG_DOSE	1ST_DRIVE	2ND_DRIVE	3RD_DRIVER
0.00E+00	0.00E+00	0.00E+00	*	6.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	8.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.79E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	3.89E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	6.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.50E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	3.68E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	4.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	3.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	7.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.85E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	1.23E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	7.83E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	5.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		
0.00E+00	0.00E+00	0.00E+00	*	2.53E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION		

APPENDIX D
EMFAC Worksheets

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Sacramento
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, gallon/mile for Fuel Consumption.

Region	Calendar Y	Vehicle Ca	Model Year	Speed	Fuel	VMT	NOx_RUNE	PM2.5_RUI	PM10_RUN	CO2_RUNE	CH4_RUNE	N2O_RUNE	ROG_RUNE	TOG_RUNE	CO_RUNEX	SOx_RUNE	Fuel Consumption
SACRAMEN	2025	LDT2	Aggregate	5	Diesel	2.359776	0.153525	0.009816	0.01026	637.5407	0.012043	0.100213	0.259284	0.295177	2.475064	0.006027	0.062633
SACRAMEN	2025	LDT2	Aggregate	10	Diesel	179.8778	0.128404	0.008845	0.009245	536.6604	0.00901	0.084356	0.193981	0.220835	1.852362	0.005073	0.052722
SACRAMEN	2025	LDT2	Aggregate	15	Diesel	570.3761	0.087561	0.007558	0.0079	444.9799	0.004417	0.069945	0.09509	0.108254	0.906659	0.004207	0.043715
SACRAMEN	2025	LDT2	Aggregate	20	Diesel	2138.771	0.059364	0.006378	0.006666	365.585	0.001737	0.057465	0.037391	0.042568	0.355002	0.003456	0.035916
SACRAMEN	2025	LDT2	Aggregate	25	Diesel	6907.695	0.046433	0.005432	0.005677	306.5298	0.00105	0.048182	0.022615	0.025745	0.214229	0.002898	0.030114
SACRAMEN	2025	LDT2	Aggregate	30	Diesel	4824.355	0.039695	0.004788	0.005005	265.0615	0.000796	0.041664	0.017137	0.019509	0.162308	0.002506	0.02604
SACRAMEN	2025	LDT2	Aggregate	35	Diesel	8575.308	0.035257	0.004317	0.004512	239.2282	0.000635	0.037603	0.013671	0.015564	0.129505	0.002262	0.023502
SACRAMEN	2025	LDT2	Aggregate	40	Diesel	10506.89	0.032156	0.003959	0.004138	223.2766	0.000526	0.035096	0.011314	0.012881	0.107232	0.002111	0.021935
SACRAMEN	2025	LDT2	Aggregate	45	Diesel	4071.258	0.029888	0.003681	0.003848	215.2765	0.000447	0.033838	0.009629	0.010962	0.091337	0.002035	0.021149
SACRAMEN	2025	LDT2	Aggregate	50	Diesel	4081.328	0.028162	0.003463	0.003619	215.6342	0.000389	0.033895	0.00838	0.00954	0.07961	0.002039	0.021184
SACRAMEN	2025	LDT2	Aggregate	55	Diesel	7427.337	0.026827	0.003293	0.003441	225.4631	0.000345	0.03544	0.007433	0.008462	0.070801	0.002131	0.02215
SACRAMEN	2025	LDT2	Aggregate	60	Diesel	5733.807	0.026438	0.003241	0.003388	244.2227	0.000328	0.038388	0.007072	0.008051	0.067678	0.002309	0.023993
SACRAMEN	2025	LDT2	Aggregate	65	Diesel	840.5689	0.026651	0.003293	0.003442	274.317	0.000332	0.043119	0.007146	0.008136	0.068888	0.002593	0.026949
SACRAMEN	2025	LDT2	Aggregate	70	Diesel	222.3901	0.02686	0.00333	0.00348	295.9618	0.000334	0.046521	0.007198	0.008194	0.069735	0.002798	0.029076
SACRAMEN	2025	LHD1	Aggregate	5	Diesel	8166.805	1.772287	0.064687	0.067612	1187.051	0.036235	0.186588	0.780108	0.888101	3.306834	0.011222	0.116617
SACRAMEN	2025	LHD1	Aggregate	10	Diesel	27158.35	1.792469	0.048312	0.050497	997.9019	0.0265	0.156856	0.570536	0.649517	2.433597	0.009434	0.098035
SACRAMEN	2025	LHD1	Aggregate	15	Diesel	58817.2	1.783221	0.037012	0.038685	651.7135	0.014931	0.10244	0.321452	0.365952	1.389719	0.006161	0.064025
SACRAMEN	2025	LHD1	Aggregate	20	Diesel	64482.65	1.799928	0.029219	0.03054	555.4873	0.008061	0.087315	0.17354	0.197564	0.771747	0.005251	0.054572
SACRAMEN	2025	LHD1	Aggregate	25	Diesel	69013.64	1.857712	0.02387	0.024949	492.6644	0.005747	0.07744	0.12374	0.14087	0.568033	0.004657	0.0484
SACRAMEN	2025	LHD1	Aggregate	30	Diesel	58256.26	1.922371	0.02034	0.021259	447.3925	0.004633	0.070324	0.099747	0.113555	0.473894	0.004229	0.043952
SACRAMEN	2025	LHD1	Aggregate	35	Diesel	30744.09	2.003225	0.017987	0.0188	447.3925	0.003924	0.070324	0.084487	0.096183	0.418162	0.004229	0.043952
SACRAMEN	2025	LHD1	Aggregate	40	Diesel	16877.5	2.086536	0.016463	0.017208	435.1446	0.003475	0.068399	0.074821	0.085179	0.388738	0.004114	0.042749
SACRAMEN	2025	LHD1	Aggregate	45	Diesel	18216.37	2.162542	0.015575	0.016279	424.4493	0.003211	0.066718	0.069139	0.07871	0.380385	0.004013	0.041698
SACRAMEN	2025	LHD1	Aggregate	50	Diesel	70339.19	2.240548	0.015228	0.015917	444.9783	0.003095	0.069944	0.066644	0.07587	0.392064	0.004207	0.043715
SACRAMEN	2025	LHD1	Aggregate	55	Diesel	42358.9	2.332789	0.015406	0.016102	464.9866	0.003115	0.073089	0.067069	0.076354	0.42631	0.004396	0.045681
SACRAMEN	2025	T7 Single	Aggregate	5	Diesel	1698.133	9.633552	0.006707	0.00701	3292.458	0.004682	0.517529	0.100811	0.114766	1.720756	0.031106	0.323455
SACRAMEN	2025	T7 Single	Aggregate	10	Diesel	3956.797	7.315618	0.005898	0.006165	2722.163	0.002938	0.427886	0.06326	0.072017	1.057944	0.025718	0.267429
SACRAMEN	2025	T7 Single	Aggregate	15	Diesel	4920.738	5.171339	0.004673	0.004884	2142.114	0.001634	0.336711	0.035169	0.040037	0.573206	0.020238	0.210444
SACRAMEN	2025	T7 Single	Aggregate	20	Diesel	6286.959	4.116681	0.003971	0.00415	1829.332	0.00111	0.287545	0.02389	0.027197	0.382826	0.017283	0.179716
SACRAMEN	2025	T7 Single	Aggregate	25	Diesel	8642.503	3.213331	0.003791	0.003963	1596.429	0.000871	0.250936	0.018761	0.021358	0.292594	0.015082	0.156835
SACRAMEN	2025	T7 Single	Aggregate	30	Diesel	10895.1	2.402012	0.004135	0.004322	1402.522	0.000705	0.220457	0.015174	0.017275	0.224464	0.01325	0.137786
SACRAMEN	2025	T7 Single	Aggregate	35	Diesel	9390.317	1.759333	0.005002	0.005228	1253.569	0.00058	0.197044	0.012497	0.014227	0.169195	0.011843	0.123152
SACRAMEN	2025	T7 Single	Aggregate	40	Diesel	6013.906	1.284288	0.006392	0.006681	1149.571	0.000498	0.180696	0.010729	0.012215	0.126788	0.010861	0.112935
SACRAMEN	2025	T7 Single	Aggregate	45	Diesel	4819.316	0.976327	0.008305	0.00868	1090.527	0.000459	0.171416	0.009872	0.011238	0.097242	0.010303	0.107135
SACRAMEN	2025	T7 Single	Aggregate	50	Diesel	11392.52	0.835605	0.010741	0.011226	1076.437	0.000461	0.169201	0.009924	0.011298	0.080559	0.01017	0.105751
SACRAMEN	2025	T7 Single	Aggregate	55	Diesel	29326.08	0.861767	0.0137	0.014319	1107.302	0.000506	0.174052	0.010886	0.012393	0.076736	0.010461	0.108783
SACRAMEN	2025	T7 Single	Aggregate	60	Diesel	21145.03	1.055429	0.017182	0.017959	1183.121	0.000593	0.18597	0.012758	0.014524	0.085776	0.011178	0.116231
SACRAMEN	2025	T7 Single	Aggregate	65	Diesel	6761.266	1.413543	0.021187	0.022145	1303.895	0.000722	0.204954	0.01554	0.017691	0.107677	0.012319	0.128096
SACRAMEN	2025	T7 Single	Aggregate	70	Diesel	590.2083	1.414727	0.021187	0.022145	1303.895	0.000869	0.204954	0.018712	0.021303	0.137549	0.012319	0.128096
SACRAMEN	2025	T7 Single	Aggregate	75	Diesel	21.84413	1.419228	0.021187	0.022145	1303.895	0.001053	0.204954	0.022667	0.025804	0.178473	0.012319	0.128096
SACRAMEN	2025	T7 Single	Aggregate	80	Diesel	0											
SACRAMEN	2025	T7 Single	Aggregate	85	Diesel	0											
SACRAMEN	2025	T7 Single	Aggregate	90	Diesel	0											
SACRAMEN	2025	T7 single co	Aggregate	5	Diesel	3011.779	10.67713	0.015398	0.016094	3412.602	0.006874	0.536414	0.147995	0.168481	1.802924	0.032241	0.335258
SACRAMEN	2025	T7 single co	Aggregate	10	Diesel	2071.609	8.179135	0.013205	0.013802	2827.673	0.004617	0.444471	0.099399	0.113159	1.124621	0.026714	0.277794
SACRAMEN	2025	T7 single co	Aggregate	15	Diesel	440.0739	5.810807	0.009755	0.010196	2227.568	0.002532	0.350143	0.054523	0.06207	0.620631	0.021045	0.218839
SACRAMEN	2025	T7 single co	Aggregate	20	Diesel	438.3951	4.634792	0.007516	0.007856	1900.461	0.001542	0.298726	0.033206	0.037802	0.417927	0.017955	0.186704
SACRAMEN	2025	T7 single co	Aggregate	25	Diesel	591.3068	3.685532	0.006722	0.007026	1659.665	0.001181	0.260876	0.025436	0.028957	0.321236	0.01568	0.163048
SACRAMEN	2025	T7 single co	Aggregate	30	Diesel	709.8416	2.840577	0.006735	0.00704	1460.642	0.000956	0.229593	0.020586	0.023435	0.248558	0.013799	0.143495
SACRAMEN	2025	T7 single co	Aggregate	35	Diesel	916.6886	2.17392	0.007401	0.007735	1307.622	0.000786	0.20554	0.016929	0.019273	0.189533	0.012354	0.128462
SACRAMEN	2025	T7 single co	Aggregate	40	Diesel	1175.336	1.685598	0.008718	0.009113	1200.588	0.000672	0.188716	0.014458	0.016459	0.144138	0.011343	0.117947
SACRAMEN	2025	T7 single co	Aggregate	45	Diesel	1428.123	1.373857	0.01069	0.011173	1139.528	0.000611	0.179118	0.013161	0.014982	0.112363	0.010766	0.111949
SACRAMEN	2025	T7 single co	Aggregate	50	Diesel	1435.14	1.239014	0.013318	0.01392	1124.436	0.000605	0.176746	0.013026	0.014829	0.094204	0.010623	0.110466
SACRAMEN	2025	T7 single co	Aggregate	55	Diesel	1750.997	1.283017	0.016606	0.017357	1155.311	0.000652	0.181599	0.014038	0.015981	0.089669	0.010915	0.113499
SACRAMEN	2025	T7 single co	Aggregate	60	Diesel	6426.94	1.501813	0.020402	0.021324	1232.004	0.000746	0.193654	0.016053	0.018275	0.098652	0.011639	0.121034
SACRAMEN	2025	T7 single co	Aggregate	65	Diesel	3150.983	1.887303	0.024638	0.025753	1354.267	0.000876	0.212872	0.018867	0.021478	0.120772	0.012794	0.133045
SACRAMEN	2025	T7 single co	Aggregate	70	Diesel	703.5189	1.8953	0.024638	0.025753	1354.267	0.001012	0.212872	0.021791	0.024807	0.148309	0.012794	0.133045
SACRAMEN	2025	T7 single co	Aggregate	75	Diesel	558.1872	1.898057	0.024638	0.025753	1354.267	0.001181	0.212872	0.025436	0.028957	0.186034	0.012794	0.133045
SACRAMEN	2025	T7 single co	Aggregate	80	Diesel	0											
SACRAMEN	2025	T7 single co	Aggregate	85	Diesel	0											
SACRAMEN	2025	T7 single co	Aggregate	90	Diesel	0											

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Sacramento
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, gallon/mile for Fuel Consumption.

Region	Calendar Ye	Vehicle Cat	Model Year	Speed	Fuel	VMT	NOx_RUNE	PM2.5_RUN	PM10_RUN	CO2_RUNE	CH4_RUNE	N2O_RUNE	ROG_RUNE	TOG_RUNE	CO_RUNEX	SOx_RUNE	Fuel Consumption
SACRAMEN	2025	LDT2	Aggregate	5	Diesel	2.359776	0.153525	0.009816	0.01026	637.5407	0.012043	0.100213	0.259284	0.295177	2.475064	0.006027	0.062633
SACRAMEN	2025	LDT2	Aggregate	10	Diesel	179.8778	0.128404	0.008845	0.009245	536.6604	0.00901	0.084356	0.193981	0.220835	1.852362	0.005073	0.052722
SACRAMEN	2025	LDT2	Aggregate	15	Diesel	570.3761	0.087561	0.007558	0.0079	444.9799	0.004417	0.069945	0.09509	0.108254	0.906659	0.004207	0.043715
SACRAMEN	2025	LDT2	Aggregate	20	Diesel	2138.771	0.059364	0.006378	0.006666	365.585	0.001737	0.057465	0.037391	0.042568	0.355002	0.003456	0.035916
SACRAMEN	2025	LDT2	Aggregate	25	Diesel	6907.695	0.046433	0.005432	0.005677	306.5298	0.00105	0.048182	0.022615	0.025745	0.214229	0.002898	0.030114
SACRAMEN	2025	LDT2	Aggregate	30	Diesel	4824.355	0.039695	0.004788	0.005005	265.0615	0.000796	0.041664	0.017137	0.019509	0.162308	0.002506	0.02604
SACRAMEN	2025	LDT2	Aggregate	35	Diesel	8575.308	0.035257	0.004317	0.004512	239.2282	0.000635	0.037603	0.013671	0.015564	0.129505	0.002262	0.023502
SACRAMEN	2025	LDT2	Aggregate	40	Diesel	10506.89	0.032156	0.003959	0.004138	223.2766	0.000526	0.035096	0.011314	0.012881	0.107232	0.002111	0.021935
SACRAMEN	2025	LDT2	Aggregate	45	Diesel	4071.258	0.029888	0.003681	0.003848	215.2765	0.000447	0.033838	0.009629	0.010962	0.091337	0.002035	0.021149
SACRAMEN	2025	LDT2	Aggregate	50	Diesel	4081.328	0.028162	0.003463	0.003619	215.6342	0.000389	0.033895	0.00838	0.00954	0.07961	0.002039	0.021184
SACRAMEN	2025	LDT2	Aggregate	55	Diesel	7427.337	0.026827	0.003293	0.003441	225.4631	0.000345	0.03544	0.007433	0.008462	0.070801	0.002131	0.02215
SACRAMEN	2025	LDT2	Aggregate	60	Diesel	5733.807	0.026438	0.003241	0.003388	244.2227	0.000328	0.038388	0.007072	0.008051	0.067678	0.002309	0.023993
SACRAMEN	2025	LDT2	Aggregate	65	Diesel	840.5689	0.026651	0.003293	0.003442	274.317	0.000332	0.043119	0.007146	0.008136	0.068888	0.002593	0.026949
SACRAMEN	2025	LDT2	Aggregate	70	Diesel	222.3901	0.02686	0.00333	0.00348	295.9618	0.000334	0.046521	0.007198	0.008194	0.069735	0.002798	0.029076
SACRAMEN	2025	T7 Single	Aggregate	5	Diesel	1698.133	9.633552	0.006707	0.00701	3292.458	0.004682	0.517529	0.100811	0.114766	1.720756	0.031106	0.323455
SACRAMEN	2025	T7 Single	Aggregate	10	Diesel	3956.797	7.315618	0.005898	0.006165	2722.163	0.002938	0.427886	0.06326	0.072017	1.057944	0.025718	0.267429
SACRAMEN	2025	T7 Single	Aggregate	15	Diesel	4920.738	5.171339	0.004673	0.004884	2142.114	0.001634	0.336711	0.035169	0.040037	0.573206	0.020238	0.210444
SACRAMEN	2025	T7 Single	Aggregate	20	Diesel	6286.959	4.116681	0.003971	0.00415	1829.332	0.00111	0.287545	0.02389	0.027197	0.382826	0.017283	0.179716
SACRAMEN	2025	T7 Single	Aggregate	25	Diesel	8642.503	3.213331	0.003791	0.003963	1596.429	0.000871	0.250936	0.018761	0.021358	0.292594	0.015082	0.156835
SACRAMEN	2025	T7 Single	Aggregate	30	Diesel	10895.1	2.402012	0.004135	0.004322	1402.522	0.000705	0.220457	0.015174	0.017275	0.224464	0.01325	0.137786
SACRAMEN	2025	T7 Single	Aggregate	35	Diesel	9390.317	1.759333	0.005002	0.005228	1253.569	0.00058	0.197044	0.012497	0.014227	0.169195	0.011843	0.123152
SACRAMEN	2025	T7 Single	Aggregate	40	Diesel	6013.906	1.284288	0.006392	0.006681	1149.571	0.000498	0.180696	0.010729	0.012215	0.126788	0.010861	0.112935
SACRAMEN	2025	T7 Single	Aggregate	45	Diesel	4819.316	0.976327	0.008305	0.00868	1090.527	0.000459	0.171416	0.009872	0.011238	0.097242	0.010303	0.107135
SACRAMEN	2025	T7 Single	Aggregate	50	Diesel	11392.52	0.835605	0.010741	0.011226	1076.437	0.000461	0.169201	0.009924	0.011298	0.080559	0.01017	0.105751
SACRAMEN	2025	T7 Single	Aggregate	55	Diesel	29326.08	0.861767	0.0137	0.014319	1107.302	0.000506	0.174052	0.010886	0.012393	0.076736	0.010461	0.108783
SACRAMEN	2025	T7 Single	Aggregate	60	Diesel	21145.03	1.055429	0.017182	0.017959	1183.121	0.000593	0.18597	0.012758	0.014524	0.085776	0.011178	0.116231
SACRAMEN	2025	T7 Single	Aggregate	65	Diesel	6761.266	1.413543	0.021187	0.022145	1303.895	0.000722	0.204954	0.01554	0.017691	0.107677	0.012319	0.128096
SACRAMEN	2025	T7 Single	Aggregate	70	Diesel	590.2083	1.414727	0.021187	0.022145	1303.895	0.000869	0.204954	0.018712	0.021303	0.137549	0.012319	0.128096
SACRAMEN	2025	T7 Single	Aggregate	75	Diesel	21.84413	1.419228	0.021187	0.022145	1303.895	0.001053	0.204954	0.022667	0.025804	0.178473	0.012319	0.128096
SACRAMEN	2025	T7 Single	Aggregate	80	Diesel	0											
SACRAMEN	2025	T7 Single	Aggregate	85	Diesel	0											
SACRAMEN	2025	T7 Single	Aggregate	90	Diesel	0											
SACRAMEN	2025	T7 single cc	Aggregate	5	Diesel	3011.779	10.67713	0.015398	0.016094	3412.602	0.006874	0.536414	0.147995	0.168481	1.802924	0.032241	0.335258
SACRAMEN	2025	T7 single cc	Aggregate	10	Diesel	2071.609	8.179135	0.013205	0.013802	2827.673	0.004617	0.444471	0.099399	0.113159	1.124621	0.026714	0.277794
SACRAMEN	2025	T7 single cc	Aggregate	15	Diesel	440.0739	5.810807	0.009755	0.010196	2227.568	0.002532	0.350143	0.054523	0.06207	0.620631	0.021045	0.218839
SACRAMEN	2025	T7 single cc	Aggregate	20	Diesel	438.3951	4.634792	0.007516	0.007856	1900.461	0.001542	0.298726	0.033206	0.037802	0.417927	0.017955	0.186704
SACRAMEN	2025	T7 single cc	Aggregate	25	Diesel	591.3068	3.685532	0.006722	0.007026	1659.665	0.001181	0.260876	0.025436	0.028957	0.321236	0.01568	0.163048
SACRAMEN	2025	T7 single cc	Aggregate	30	Diesel	709.8416	2.840577	0.006735	0.00704	1460.642	0.000956	0.229593	0.020586	0.023435	0.248558	0.013799	0.143495
SACRAMEN	2025	T7 single cc	Aggregate	35	Diesel	916.6886	2.17392	0.007401	0.007735	1307.622	0.000786	0.20554	0.016929	0.019273	0.189533	0.012354	0.128462
SACRAMEN	2025	T7 single cc	Aggregate	40	Diesel	1175.336	1.685598	0.008718	0.009113	1200.588	0.000672	0.188716	0.014458	0.016459	0.144138	0.011343	0.117947
SACRAMEN	2025	T7 single cc	Aggregate	45	Diesel	1428.123	1.373857	0.01069	0.011173	1139.528	0.000611	0.179118	0.013161	0.014982	0.112363	0.010766	0.111949
SACRAMEN	2025	T7 single cc	Aggregate	50	Diesel	1435.14	1.239014	0.013318	0.01392	1124.436	0.000605	0.176746	0.013026	0.014829	0.094204	0.010623	0.110466
SACRAMEN	2025	T7 single cc	Aggregate	55	Diesel	1750.997	1.283017	0.016606	0.017357	1155.311	0.000652	0.181599	0.014038	0.015981	0.089669	0.010915	0.113499
SACRAMEN	2025	T7 single cc	Aggregate	60	Diesel	6426.94	1.501813	0.020402	0.021324	1232.004	0.000746	0.193654	0.016053	0.018275	0.098652	0.011639	0.121034
SACRAMEN	2025	T7 single cc	Aggregate	65	Diesel	3150.983	1.887303	0.024638	0.025753	1354.267	0.000876	0.212872	0.018867	0.021478	0.120772	0.012794	0.133045
SACRAMEN	2025	T7 single cc	Aggregate	70	Diesel	703.5189	1.8953	0.024638	0.025753	1354.267	0.001012	0.212872	0.021791	0.024807	0.148309	0.012794	0.133045
SACRAMEN	2025	T7 single cc	Aggregate	75	Diesel	558.1872	1.898057	0.024638	0.025753	1354.267	0.001181	0.212872	0.025436	0.028957	0.186034	0.012794	0.133045
SACRAMEN	2025	T7 single cc	Aggregate	80	Diesel	0											
SACRAMEN	2025	T7 single cc	Aggregate	85	Diesel	0											
SACRAMEN	2025	T7 single cc	Aggregate	90	Diesel	0											

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Sacramento
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS, and DIURN.

Region	Calendar Y	Vehicle Cat	Model Year	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RUI	PM2.5_IDLI	PM2.5_STR	PM2.5_PMT	PM2.5_PMI	PM10_RUN	PM10_IDLE	PM10_STRI	PM10_PMT	PM10_PMB	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE
SACRAMEN	2025	LDT2	Aggregate	Aggregate	Diesel	1470.049	56082.32	7131.619	0.035103	0	0	0.004181	0	0	0.002	0.01575	0.00437	0	0	0.008	0.03675	250.6164	0	0	0.00068
SACRAMEN	2025	T7 Single	Aggregate	Aggregate	Diesel	1672.032	125860.7	19295.02	1.962939	25.83305	3.607193	0.010564	0.008901	0	0.009	0.02646	0.011042	0.009304	0	0.036	0.06174	1356.971	5248.49	0	0.000782
SACRAMEN	2025	T7 single co	Aggregate	Aggregate	Diesel	354.5533	24808.92	1602.922	3.459977	18.95851	4.456663	0.016543	0.007134	0	0.009	0.02646	0.017291	0.007457	0	0.036	0.06174	1682.269	3913.502	0	0.001885

CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSX	ROG_RUNLX	ROG_RESTX	ROG_DIURX	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSX	TOG_RUNLX	TOG_RESTX	TOG_DIURX	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
0	0	0.039393	0	0	0.014648	0	0	0	0	0	0	0.016676	0	0	0	0	0	0	0.139075	0	0	0.002369	0	0
0.101539	0	0.213297	0.82499	0	0.016847	2.186104	0	0	0	0	0	0.019179	2.488713	0	0	0	0	0	0.20598	32.30148	0	0.01282	0.049585	0
0.073428	0	0.264429	0.615148	0	0.040573	1.580881	0	0	0	0	0	0.04619	1.799713	0	0	0	0	0	0.42731	23.29829	0	0.015893	0.036973	0