# Appendix B
Air Quality and GHG Emissions Technical Report

# Air Quality and Greenhouse Gas Emissions Technical Report

# Los Robles Comprehensive Cancer Center and the 355 W Janss Road General Plan Amendment and Zone Change, City of Thousand Oaks, California

**OCTOBER 2023**

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# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| AB | Assembly Bill |
| ACC | Advanced Clean Cars |
| AERMOD | American Meteorological Society/Environmental Protection Agency Regulatory Model |
| AQMP | Air Quality Management Plan |
| CAAQS | California Ambient Air Quality Standards |
| CalEEMod | California Emissions Estimator Model |
| CALGreen | California Green Building Standards Code |
| CARB | California Air Resources Board |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CFC | chlorofluorocarbon |
| $CH_4$ | methane |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | $CO_2$ equivalent |
| DPM | diesel particulate matter |
| EO | Executive Order |
| EPA | U.S. Environmental Protection Agency |
| EV | electric vehicle |
| GHG | greenhouse gas |
| GWP | global warming potential |
| HAP | hazardous air pollutant |
| HCFC | hydrochlorofluorocarbon |
| HFC | hydrofluorocarbon |
| HRA | health risk assessment |
| MM | Mitigation Measure |
| MMT | million metric ton |
| MT | metric tons |
| $N_2O$ | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NHTSA | National Highway Traffic Safety Administration |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | oxides of nitrogen |
| $O_3$ | ozone |
| PFC | perfluorocarbon |
| PM | particulate matter |
| $PM_{10}$ | particulate matter with an aerodynamic diameter less than or equal to 10 microns |
| $PM_{2.5}$ | particulate matter with an aerodynamic diameter less than or equal to 2.5 microns |

| Acronym/Abbreviation | Definition |
|---|---|
| RCP | Regional Comprehensive Plan |
| ROG | reactive organic gas |
| RTP | Regional Transportation Plan |
| SB | Senate Bill |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCCAB | South Central Coast Air Basin |
| SCS | Sustainable Communities Strategy |
| $SF_6$ | sulfur hexafluoride |
| $SO_2$ | sulfur dioxide |
| $SO_x$ | sulfur oxides |
| SWRCB | State Water Resources Control Board |
| TAC | toxic air contaminant |
| VCAPCD | Ventura County Air Pollution Control District |
| VOC | volatile organic compound |
| ZEV | zero emission vehicle |

# Executive Summary

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with implementation of the Los Robles Comprehensive Cancer Center (Cancer Center Site) and the 355 W Janss Road SiteGeneral Plan Amendment and Zone Change (Janss Road Site) (collectively the "Project"). This assessment utilizes the significance thresholds in Appendix G of the California Environmental Quality Act Guidelines (14 CCR 15000 et seq.).

## Project and Approach Overview

**Cancer Center Site**

The proposed project is a new medical office building, with the primary access off of Rolling Oaks Drive and secondary access off of Los Padres Drive. Parking will be provided on site, including a drop-off area for patients.

The project would accommodate a split-level, two-story 58,412-square-foot medical office building with a mechanical rooftop screened with mansard roofing. This would be an Office of Statewide Health Planning and Development 3 building, requiring state review and approval of building permits. The medical building would accommodate patient rooms, treatment services, office area for staff and physicians, conference/consultation rooms, lounge, and general storage and utility areas.

Primary access would be off of Rolling Oaks Drive, requiring reconfiguration of the existing drive. A secondary access would be accommodated off of Los Padres Drive. Parking would be provided on site in accordance with the City of Thousand Oaks Municipal Code, including the required number of accessible and electric vehicle charging spaces. On-site bicycle parking (short-term and long-term) would be provided.

The project would provide 26% landscape coverage (54,332 square feet), providing enhanced perimeter landscape treatment. There would be a 20-foot side and front setback from property line to building along Rolling Oaks Drive and Los Padres Drive. The proposed project would accommodate a 20-foot rear setback and a 25-foot utility easement from the property line along the east edge of the property.

**Janss Road Site**

The Project would involve a General Plan Amendment to modify the Janss Road Site Site's General Plan Land Use designation from Institutional to Very Low Residential, and a Zone Change to modify the site's zoning designation from Public, Quasi-public and Institutional Lands and Facilities (PL) to Residential Planned Development, maximum 4.5 dwelling units per acre (RPD-4.5U).

No specific residential development project has been proposed for the Janss Road SiteProject site, nor is the City required to approve a specific housing development to comply with SB330/SB8. However, the proposed modification in land use designation and rezone of the Janss Road Site would allow for residential uses at the Janss Road Site to ensure no net loss of residential zoning capacity resulting from the Cancer Center Site approvals. While it is reasonably foreseeable that future development at the Janss Road Site would consist of residences developed at the maximum allowable intensity of 9 units on the 2.15-acre site and in a manner consistent with the proposed zoning and General Plan land use designation, no specific development or site plan is proposed at this time. As such, it would be speculative to assume the type of housing, mix and size of units, building footprint and/or overall design that would be developed at Janss Road Site as part of this EIR. As a result, only the environmental impacts of the Janss Road Site General Plan Amendment and rezoning which can be reasonably foreseen at this time are analyzed in this EIR at a programmatic level, The environmental effects of a future residential development project which require an understanding of a specific site plan and development details would be analyzed as part of the CEQA process associated with the discretionary approvals required for a future residential development project at the Janss Road Site.

The project site is located within the South Central Coast Air Basin and is under the jurisdiction of the City of Thousand Oaks and the Ventura County Air Pollution Control District (VCAPCD). The VCAPCD Air Quality Assessment Guidelines was followed as applicable to the project. Construction and operational criteria air pollutant and GHG emissions were estimated using the California Emissions Estimator Model Version 2022.

## Air Quality

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include ozone ($O_3$), nitrogen dioxide, carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns ($PM_{10}$), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated include reactive organic gases (ROGs), oxides of nitrogen ($NO_x$), CO, sulfur oxides ($SO_x$), $PM_{10}$, and $PM_{2.5}$. ROGs and $NO_x$ are important because they are precursors to $O_3$.

### Conflict with or Obstruct Applicable Air Quality Plan

A project is non-conforming with an air quality plan if it conflicts with or delays implementation of any applicable attainment or maintenance plan. The VCAPCD has prepared plans to attain federal and state $O_3$ and particulate matter ambient air quality standards as required under the federal and California Clean Air Acts. The VCAPCD has established thresholds of significance for criteria pollutant emissions, and projects with emissions below the thresholds of significance for criteria pollutants would be determined to “not conflict or obstruct implementation of the District’s air quality plan” (VCAPCD 2003).

**Cancer Center Site**

As determined in the assessment of project-generated construction and operational emissions, the Cancer Center Site would result in emissions that would not exceed VCAPCD thresholds or result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations. Therefore, the Cancer Center Site would not conflict with or delay the implementation of the VCAPCD attainment plans and would result in a **less than significant impact.**

**Janss Road Site**

As determined in the assessment of project-generated construction and operational emissions, the Janss Road Site would result in emissions that would not exceed VCAPCD thresholds or result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations. Therefore, the Cancer Center Site would not conflict with or delay the implementation of the VCAPCD attainment plans and would result in a **less than significant impact.**

## Cumulative Impacts

The potential for the project to result in a cumulatively considerable impact, per the VCAPCD guidance and thresholds, is based on the project's impact compared to the VCAPCD significance criteria.

**Cancer Center Site**

The construction emissions from the Cancer Center Site would not exceed the VCAPCD significance thresholds for ROG, NOx, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$. The project's construction and operational emissions would be less than the VCAPCD localized thresholds for ROG, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$. Therefore, the project construction and operational impacts would be **less than significant.**

**Janss Road Site**

The construction emissions from the Janss Road Site would not exceed the VCAPCD significance thresholds for ROG, NOx, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$. The project's construction and operational emissions would be less than the VCAPCD localized thresholds for ROG, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$. Therefore, the project construction and operational impacts would be **less than significant.**

## Exposure of Sensitive Receptors

### Carbon Monoxide Hotspot

**Cancer Center Site**

Operation of the Cancer Center Site would not expose sensitive receptors to localized high concentrations of CO or contribute traffic volumes to intersections that would cause a CO hotspot. As neither the 1-hour nor the 8-hour CO California Ambient Air Quality Standards would be equaled or exceeded at any of the studied intersections, potential CO hotspot impacts would be **less than significant**.

**Janss Road Site**

Operation of the Janss Road Site would not expose sensitive receptors to localized high concentrations of CO or contribute traffic volumes to intersections that would cause a CO hotspot. As neither the 1-hour nor the 8-hour CO California Ambient Air Quality Standards would be equaled or exceeded at any of the studied intersections, potential CO hotspot impacts would be **less than significant.**

### Valley Fever

**Cancer Center Site**

Coccidioidomycosis, more commonly known as valley fever, is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The City has a low incidence rate of valley fever. Furthermore, the Cancer Center Site would not impact undisturbed land; it would be built on an existing developed site, which is not a source of valley fever spores. Impacts would be **less than significant.**

**Janss Road Site**

Coccidioidomycosis, more commonly known as valley fever, is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The City has a low incidence rate of valley fever. Furthermore, the Janss Road Site would not impact undisturbed land; it would be built on an existing developed site, which is not a source of valley fever spores. Impacts would be **less than significant.**

### Toxic Air Contaminants

**Cancer Center Site**

Cancer Center Site construction activities would produce diesel particulate matter due to combustion equipment, such as loaders and backhoes, and haul truck trips. The health risk assessment showed the Cancer Center Site would not exceed the VCAPCD significance thresholds during construction. Operation of the Cancer Center Site would similarly not exceed the VCAPCD significance thresholds for cancer or non-cancer health risk. Thus, sensitive receptor exposure to TACs associated with the Cancer Center Site would be **less than significant.**

**Janss Road Site**

Janss Road Site construction activities would produce diesel particulate matter due to combustion equipment, such as loaders and backhoes, and haul truck trips. The health risk assessment showed the Janss Road Site would not exceed the VCAPCD significance thresholds during construction. Operation of the project would not generate emissions of toxic air contaminants. Thus, sensitive receptor exposure to TACs associated with the Janss Road Site would be **less than significant.**

### Other Emissions (Odors)

**Cancer Center Site**

The analysis of the project's potential to result in other emissions is focused on potential odor impacts. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application, which would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Impacts associated with odors during construction would be less than significant. The Cancer Center Site would not include land-use types that would generate odors during operation. Therefore, Cancer Center Site construction and operations would result in odor impacts that are **less than significant.**

**Janss Road Site**

The analysis of the project's potential to result in other emissions is focused on potential odor impacts. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application, which would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Impacts associated with odors during construction would be less than significant. The Janss Road Site would not include land-use types that would generate odors during operation. Therefore, Janss Road Site construction and operations would result in odor impacts that are **less than significant.**

## Greenhouse Gas Emissions

Global climate change is primarily considered a cumulative impact, but must also be evaluated on a project-level basis under the California Environmental Quality Act. A project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions. GHGs are gases that absorb infrared radiation in the atmosphere. Principal GHGs regulated under state and federal law and regulations include carbon dioxide ($CO_2$), methane, and nitrous oxide. GHG emissions are measured in metric tons of $CO_2$ equivalent (MT $CO_2e$), which account for weighted global warming potential factors for methane and nitrous oxide.

### Consistency with Applicable Greenhouse Gas Reduction Plans

**Cancer Center Site**

Development of the Cancer Center Site would be consistent with the SCAG's SoCal Connect, applicable GHG laws and regulations, and demonstrate consistency with the Scoping Plan, which all promote economic growth while achieving greater energy efficiency. The Cancer Center Site would be consistent with Senate Bill 32 and Executive Order S-3-05. The Cancer Center Site would not conflict with any plans adopted with the purpose of reducing GHG emissions; therefore, the project's impacts with respect to GHG emissions would be **less than significant.**

**Janss Road Site**

Development of the Janss Road Site would be consistent with the SCAG's SoCal Connect, applicable GHG laws and regulations, and demonstrate consistency with the Scoping Plan, which all promote economic growth while achieving greater energy efficiency. The Janss Road Site would be consistent with Senate Bill 32 and Executive Order S-3-05. The Janss Road Site would not conflict with any plans adopted with the purpose of reducing GHG emissions; therefore, the project's impacts with respect to GHG emissions would be **less than significant**.

### Project-Generated Construction and Operational Greenhouse Gas Emissions

**Cancer Center Site**

Construction of the Cancer Center Site would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The estimated total GHG emissions during construction would be approximately 326 MT $CO_2e$. Estimated project-generated construction emissions amortized over 30 years would be approximately 11 MT $CO_2e$ per year.

Operation of the Cancer Center Site would generate GHG emissions through motor vehicle and delivery truck trips to and from the project site, landscape maintenance equipment operation, energy use, testing of the emergency generator, solid waste disposal, water and wastewater. Estimated annual project-generated operational emissions plus amortized project construction emissions would be approximately 2,712 MT $CO_2e$ per year.

**Janss Road Site**

Construction of the Janss Road Site would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The estimated total GHG emissions during construction would be approximately 374 MT $CO_2e$. Estimated project-generated construction emissions amortized over 30 years would be approximately 13 MT $CO_2e$ per year.

Operation of the Janss Road Site would generate GHG emissions through motor vehicle and delivery truck trips to and from the project site, landscape maintenance equipment operation, energy use, solid waste disposal, water and wastewater. Estimated annual project-generated operational emissions plus amortized project construction emissions would be approximately 145 MT $CO_2e$ per year.

# 1 Introduction

## 1.1 Report Purpose and Scope

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with implementation of the Los Robles Comprehensive Cancer Center (Cancer Center Site) and the 355 W Janss Road Site General Plan Amendment and Zone Change (Janss Road Site) (collectively the "Project"). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) and is based on the emissions-based significance thresholds recommended by the City of Thousand Oaks (City), the Ventura County Air Pollution Control District (VCAPCD), and other applicable thresholds of significance.

This introductory chapter provides a description of the project and the project location. Chapter 2, Air Quality, describes the air quality–related environmental setting, regulatory setting, existing air quality conditions, and thresholds of significance and analysis methodology and presents an air quality impact analysis per Appendix G of the CEQA Guidelines. Chapter 3, Greenhouse Gas Emissions, follows the same format as Chapter 2 and similarly describes the GHG emissions–related environmental setting, regulatory setting, existing climate changes conditions, and thresholds of significance and analysis methodology and presents a GHG emissions impact analysis per Appendix G of the CEQA Guidelines. Chapter 4, References Cited, includes a list of the references cited. Chapter 5, List of Preparers, includes a list of those who prepared this technical report.

## 1.2 Regional and Local Setting

**Cancer Center Site**

The project site lies within the southern portion of the City and is south of the U.S. 101. The property is currently vacant after a daycare facility was recently demolished. As a prior children's day care operation (Young Set Club), the facility included a main building, a swimming pool, basketball court, playground, and other recreational facilities. The property is vegetated with numerous ornamental trees, protected status trees (oaks [*Quercus* spp.] and a California bay laurel [*Umbellularia californica*]) and shrubs. Disturbed coastal sage scrub is found on the southern part of the site blending to open space on the adjacent vacant property.

The site is approximately 4.7 gross acres and is bounded by Rolling Oaks Drive to the north, Rolling Oaks tract to the east, open space to the south, and Los Padres Drive to the west (Assessor's Parcel No. 681-0180-265). Surrounding uses include the following:

- North: Existing surgical medical, PL (Public, Quasi-Public, and Institutional Lands and Facilities Zone)
- South: Vacant, OS-PR (Open Space, Protected Ridgeline Overlay)
- East: Vacant land and single-family residences in unincorporated Ventura County, R-O-3AC (Single-Family Estate Zone – 3 AC Min. Lot Size)
- West: Existing multifamily residential development, R-3 (Multi-Family Residential Zone)

**Janss Road Site**

The 2.15- acre site is located at 355 W Janss Road Sitein Thousand Oaks and approximately 2.3 miles northwest of the Cancer Center Site  Site.  The site is bordered to the north by a medical office development, to the west by Lynn Road and Arroya Conejo Open Space, to the east by an internal access road and parking lot, and to the south by W Janss Road Siteand residential development. The Janss Road Site consists of APN 522-0270-135. Specifically, the  Site is in Section 00, Township 1 North, Range 18 West, as depicted on the U.S. Geological Survey Thousand Oaks, California 7.5-minute topographic quadrangle map.

The Project location is shown in Figure 1.

## 1.3 Project Description

**Cancer Center Site**

The proposed project is a new medical office building, with the primary access off of Rolling Oaks Drive and secondary access off of Los Padres Drive. Parking would be provided on site, including a drop-off area for patients.

The project would accommodate a split-level, two-story 58,412-square-foot medical office building with a mechanical rooftop screened with mansard roofing. This would be an Office of Statewide Health Planning and Development 3 building, requiring state review and approval of building permits. The medical building would accommodate patient rooms, treatment services, office area for staff and physicians, conference/consultation rooms, lounge, and general storage and utility areas.

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# 2 Air Quality

## 2.1 Environmental Setting

The project site is located within the South Central Coast Air Basin (SCCAB).

### 2.1.1 Meteorological and Topographical Conditions

The primary factors that determine air quality are the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions, however, also are important. Factors such as wind speed and direction, air temperature gradients and sunlight, and precipitation and humidity interact with physical landscape features to determine the movement and dispersal of criteria air pollutants. The analysis was prepared in accordance with the VCAPCD Air Quality Assessment Guidelines. These factors are described below.

Ventura County is in the SCCAB, which comprises Ventura County, Santa Barbara County, and San Luis Obispo County. Ventura County often exhibits weak vertical and horizontal dispersion characteristics, which limit the dispersion of emissions and cause increased ambient air pollutant levels. Persistent temperature inversions prevent vertical dispersion. An inversion acts as a “ceiling” that prevents pollutants from rising and dispersing. Mountain ranges act as “walls” that inhibit horizontal dispersion of air pollutants (VCAPCD 2003). The diurnal land/sea breeze pattern common in Ventura County recirculates air contaminants. Air pollutants are pushed toward the ocean during the early morning by the land breeze and to the east during the afternoon by the sea breeze. This creates a “sloshing” effect, causing pollutants to remain in the area for several days. Residual emissions from previous days accumulate and chemically react with new emissions in the presence of sunlight, thereby increasing ambient air pollutant levels. This pollutant sloshing effect happens predominantly from May through October (smog season). Air temperatures are usually higher and sunlight more intense during the smog season. This explains why Ventura County experiences the most exceedances of the state and federal ozone ($O_3$) standards during this 6-month period (VCAPCD 2003).

#### Temperature, Sunlight, and Ozone Production

Solar radiation and temperature are particularly important in the chemistry of $O_3$ formation. The SCCAB averages over 260 sunny days per year. Photochemical air pollution (primarily $O_3$) results from the atmospheric reactive organic gases (ROGs) and nitrogen dioxide ($NO_2$) under the influence of sunlight. $O_3$ concentrations are very dependent on the amount of solar radiation, especially during late spring, summer, and early fall. $O_3$ levels typically peak in the afternoon. After the sun goes down, the chemical reaction between nitrous oxide and $O_3$ begins to dominate. This reaction tends to reduce $O_3$ concentrations in the metropolitan areas through the early morning hours. At sunrise, oxides of nitrogen ($NO_x$) tend to peak, partly due to low levels of $O_3$ at this time and also due to the morning commuter vehicle emissions of $NO_x$.

Reaction rates generally increase with temperature, which results in greater $O_3$ production at higher temperatures. However, extremely hot temperatures can “lift” or “break” the inversion layer. Typically, if the inversion layer remains intact, $O_3$ levels peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, $O_3$ levels peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the SCCAB. $O_3$ levels are low during winter periods when there is much less sunlight to drive the photochemical reaction.

#### Precipitation, Humidity, and Fog

Precipitation and fog can result in the reduction or increase in some pollutant concentrations. For instance, $O_3$ needs sunlight for its formation, and clouds and fog can block the required solar radiation. In addition, wet fogs can cleanse the air during winter as moisture collects on particles and deposits them on the ground. Fog with less moisture content, however, can contribute to the formation of secondary ammonium nitrate particulate matter.

The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations. Between winter storms, high pressure and light winds allow cold, moist air to pool on the San Joaquin Valley floor, resulting in strong low-level temperature inversions and very stable air conditions, which can lead to Tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of particulate matter.

#### Urban Heat Island Effect

The “urban heat island” refers to the effect of urbanized areas on surface and air temperature compared to their rural surroundings. Buildings, roads, and other hardscape create an island of higher temperatures within the regional landscape. As described by the U.S. Environmental Protection Agency (EPA), “urban heat islands are caused by development and the changes in radiative and thermal properties of urban infrastructure as well as the impacts buildings can have on the local microclimate—for example tall buildings can slow the rate at which cities cool off at night. Heat islands are influenced by a city’s geographic location and by local weather patterns, and their intensity changes on a daily and seasonal basis” (EPA 2008). The term is generally used to refer to community-wide effects, particularly for large metropolitan cities. The potential adverse effects of the urban heat island effect include increased energy consumption, elevated emissions of air pollutants and GHGs, compromised human health and comfort, and impaired water quality. Increased temperatures due to the urban heat island effect may also lead to increased energy consumption, which has implications for air quality and GHG emissions. In addition to energy-related increases in air emissions, elevated air temperatures increase the rate of ground-level $O_3$ formation. Communities have adopted various strategies to deal with these environmental impacts, such as increasing vegetation and using more energy-efficient building materials. These strategies are often part of more general energy savings or sustainability practices and are not identified as urban heat island effect mitigation, but nevertheless they provide the benefits of reducing surface and atmospheric heat islands.

## 2.1.2 Pollutants and Effects

### 2.1.2.1 Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include $O_3$, $NO_2$, carbon monoxide (CO), sulfur dioxide ($SO_2$), particulate matter with an aerodynamic diameter less than or equal to 10 microns ($PM_{10}$), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. ROGs (also referred to as volatile organic compounds [VOCs])[1] and $NO_x$ are also important because they are precursors to $O_3$. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[2] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone.** $O_3$ in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to $O_3$ at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, respiratory symptoms, worsening of lung disease leading to premature death, increased susceptibility to infections, inflammation of and damage to the lung tissue, and some immunological changes (EPA 2013; CARB 2019a). These health problems are particularly acute in sensitive receptors such as the sick, older adults, and young children.

Inhalation of $O_3$ causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to $O_3$ can reduce the volume of air that the lungs breathe in and cause shortness of breath. $O_3$ in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from $O_3$ exposure vary widely among individuals, even when the dose and the duration of exposure are the same. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of $O_3$ exposure. While there are relatively few studies of $O_3$'s effects on children, the available studies show that children are no more or less likely to suffer harmful effects than adults. However, there are a number of reasons why children may be more susceptible to $O_3$ and other pollutants. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults. Children, adolescents, and adults who exercise or work outdoors where $O_3$ concentrations are the highest are at the greatest risk of harm from this pollutant (CARB 2019a).

A number of population groups are potentially at increased risk for $O_3$ exposure effects. In the ongoing review of $O_3$, EPA has identified populations as having adequate evidence for increased risk from $O_3$ exposures include individuals with asthma, younger and older age groups, individuals with reduced intake of certain nutrients such as Vitamins C and E, and outdoor workers. There is suggestive evidence for other potential factors, such as variations in genes related to oxidative metabolism or inflammation, gender, socioeconomic status, and obesity. However further evidence is needed (SCAQMD 2017).

The adverse effects reported with short-term $O_3$ exposure are greater with increased activity because activity increases the breathing rate and the volume of air reaching the lungs, resulting in an increased amount of $O_3$ reaching the lungs. Children may be a particularly vulnerable population to air pollution effects because they spend more time outdoors, are generally more active, and have a higher specific ventilation relative to their body weight, compared to adults (SCAQMD 2017).

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1 The VCAPCD threshold is set for ROG. However, ROG and VOC are generally considered equivalent for CEQA analyses; as such, ROG and VOC are used interchangeably in this analysis.

2 The descriptions of each of the criteria air pollutants and associated health effects are based on EPA's Criteria Air Pollutants (EPA 2016a) and the California Air Resources Board's Glossary of Air Pollution Terms (CARB 2016a).

**Nitrogen Dioxide.** A large body of health science literature indicates that exposure to $NO_2$ can induce adverse health effects. The strongest health evidence, and the health basis for the ambient air quality standards for $NO_2$, is results from controlled human exposure studies that show that $NO_2$ exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between $NO_2$ exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to $NO_2$ than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term $NO_2$ exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children compared to those with lower levels of exposure. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2019b).

**Carbon Monoxide.** CO is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2019c).

**Sulfur Dioxide.** $SO_2$ is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter (PM), $SO_2$ can injure lung tissue and reduce visibility and the level of sunlight. $SO_2$ can worsen asthma resulting in increased symptoms, increased medication usage, and increased emergency room visits.

Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with $SO_2$ exposure, compared with the non-asthmatic population. Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Also, exposure at elevated levels of $SO_2$ (above 1 part per million) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality. The elderly and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2019d).

$SO_2$ is of concern both because it is a direct respiratory irritant and because it contributes to the formation of sulfate and sulfuric acid in PM (NRC 2005). People with asthma are of particular concern, both because they have increased baseline airflow resistance and because their $SO_2$-induced increase in resistance is greater than that of healthy people, and it increases with the severity of their asthma (NRC 2005). $SO_2$ is thought to induce airway constriction via neural reflexes involving irritant receptors in the airways (NRC 2005).

## Particulate Matter

A number of adverse health effects have been associated with exposure to both $PM_{2.5}$ and $PM_{10}$. For $PM_{2.5}$, short-term exposures (up to 24 hours in duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, $PM_{2.5}$ is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide based on the World Health Organization's Global Burden of Disease project. Short-term exposures to $PM_{10}$ have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2017a).

Long-term (months to years) exposure to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to $PM_{10}$ are less clear, although several studies suggest a link between long-term $PM_{10}$ exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that PM in outdoor air pollution causes lung cancer (CARB 2017a).

People with influenza, people with chronic respiratory and cardiovascular diseases, and older adults may suffer worsening illness and premature death as a result of breathing PM. People with bronchitis can expect aggravated symptoms from breathing PM. Children may experience a decline in lung function due to breathing in $PM_{10}$ and $PM_{2.5}$ (EPA 2009).

PM encompasses a physically and chemically diverse class of ambient air pollutants of both anthropogenic and biological origin. The PM standard is the only one of the National Ambient Air Quality Standards (NAAQS) that does not target a specific chemical or family of chemical species (NRC 2005). The range of human health effects associated with ambient PM levels or demonstrated in laboratory studies has expanded from earlier concerns for total mortality and respiratory morbidity to include cardiac mortality and morbidity, blood vessel constriction, stroke, premature birth, low birth weight, retarded lung growth, enhancement of allergic responses, reduced resistance to infection, degenerative lesions in the brain, and lung cancer (EPA 2004).

**Lead.** Lead in the atmosphere occurs as PM. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and, in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

**Reactive Organic Gases.** Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of $O_3$ are referred to and regulated as ROGs (also referred to as VOCs). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of ROGs result from the formation of $O_3$ and its related health effects. High levels of ROGs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for ROGs as a group.

### 2.1.2.2 Non-Criteria Air Pollutants

**Toxic Air Contaminants.** A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancerous health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

**Diesel Particulate Matter.** Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2016b). DPM is typically composed of carbon particles (soot, also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016b). The California Air Resources Board (CARB) classified “particulate emissions from diesel-fueled engines” (i.e., DPM) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same noncancerous health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016b). Those most vulnerable to noncancerous health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

**Odorous Compounds.** Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

**Valley Fever.** Coccidioidomycosis, more commonly known as valley fever, is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. When fungal spores are present, any activity that disturbs the soil, such as digging, grading, or other earth-moving operations, can cause the spores to become airborne and thereby increase the risk of exposure. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline sandy soils.

Per the California Department of Public Health, the range over 8 years (2012–2020) for coccidioidomycosis cases in Ventura County is 4.6–43.9 cases per 100,000 people per year. Statewide incidences in 2020 were 18.1 per 100,000 people (CDPH 2020). As such, it is considered endemic to Ventura County.

### 2.1.3 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The VCAPCD identifies sensitive receptors 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 include schools, hospitals, and daycare centers (VCAPCD 2003). The closest off-site sensitive receptor to the project site is a residence located 120 feet west of the Cancer Center Site and 120 feet south of the Janss Road Site.

## 2.2 Regulatory Setting

### 2.2.1 Federal Regulations

#### 2.2.1.1 Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. EPA is responsible for implementing most aspects of the Clean Air Act, including setting NAAQS for major air pollutants; setting hazardous air pollutant (HAP) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric $O_3$ protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: $O_3$, CO, $NO_2$, $SO_2$, $PM_{10}$, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for $O_3$, $NO_2$, $SO_2$, $PM_{10}$, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for $O_3$, $NO_2$, $SO_2$, $PM_{10}$, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare state implementation plans that demonstrate how those areas will attain the NAAQS within mandated time frames.

#### 2.2.1.2 Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required EPA to identify National Emission Standards for Hazardous Air Pollutants to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 187 substances and chemical families were identified as HAPs.

### 2.2.2 State Regulations

#### 2.2.2.1 Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. As stated previously, an ambient air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harm to the public's health. For each pollutant, concentrations must be below the relevant CAAQS before a basin can attain the corresponding CAAQS. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for $O_3$, CO, $SO_2$ (1-hour and 24-hour), $NO_2$, $PM_{10}$, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded.

The VCAPCD has based their thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the air basin can accommodate without affecting the attainment date for the NAAQS or CAAQS. Since an ambient air quality standard is based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of the ambient air quality standard, this means that the thresholds established by air districts are also protective of human health. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 1.

## Table 1. Ambient Air Quality Standards

| Pollutant | Averaging Time | California Standards[a] | National Standards[b] | |
|---|---|---|---|---|
| | | Concentration[c] | Primary[c,d] | Secondary[c,e] |
| $O_3$ | 1 hour | 0.09 ppm (180 μg/m³) | — | Same as Primary Standard[f] |
| | 8 hours | 0.070 ppm (137 μg/m³) | 0.070 ppm (137 μg/m³)[f] | |
| $NO_2$[g] | 1 hour | 0.18 ppm (339 μg/m³) | 0.100 ppm (188 μg/m³) | Same as Primary Standard |
| | Annual Arithmetic Mean | 0.030 ppm (57 μg/m³) | 0.053 ppm (100 μg/m³) | |
| CO | 1 hour | 20 ppm (23 mg/m³) | 35 ppm (40 mg/m³) | None |
| | 8 hours | 9.0 ppm (10 mg/m³) | 9 ppm (10 mg/m³) | |
| $SO_2$[h] | 1 hour | 0.25 ppm (655 μg/m³) | 0.075 ppm (196 μg/m³) | — |
| | 3 hours | — | — | 0.5 ppm (1,300 μg/m³) |
| | 24 hours | 0.04 ppm (105 μg/m³) | 0.14 ppm (for certain areas)[g] | — |
| | Annual | — | 0.030 ppm (for certain areas)[g] | — |
| $PM_{10}$[i] | 24 hours | 50 μg/m³ | 150 μg/m³ | Same as Primary Standard |
| | Annual Arithmetic Mean | 20 μg/m³ | — | |
| $PM_{2.5}$[i] | 24 hours | — | 35 μg/m³ | Same as Primary Standard |
| | Annual Arithmetic Mean | 12 μg/m³ | 12.0 μg/m³ | 15.0 μg/m³ |
| Lead[j,k] | 30-day Average | 1.5 μg/m³ | — | — |
| | Calendar Quarter | — | 1.5 μg/m³ (for certain areas)[k] | Same as Primary Standard |
| | Rolling 3-Month Average | — | 0.15 μg/m³ | |
| Hydrogen sulfide | 1 hour | 0.03 ppm (42 μg/m³) | — | — |
| Vinyl chloride[j] | 24 hours | 0.01 ppm (26 μg/m³) | — | — |
| Sulfates | 24 hours | 25 μg/m³ | — | — |
| Visibility reducing particles | 8 hours (10:00 a.m. to 6:00 p.m. PST) | Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70% | — | — |

**Source:** CARB 2016c.

**Notes:** μg/$m^3$ = micrograms per cubic meter; mg/$m^3$= milligrams per cubic meter; ppm = parts per million by volume; $O_3$ = ozone; $NO_2$ = nitrogen dioxide; CO = carbon monoxide; $SO_2$ = sulfur dioxide; $PM_{10}$ = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

[a] California standards for $O_3$, CO, $SO_2$ (1-hour and 24-hour), $NO_2$, suspended particulate matter ($PM_{10}$, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than $O_3$, $NO_2$, $SO_2$, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The $O_3$ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For $PM_{10}$, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/$m^3$ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

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

[f] On October 1, 2015, the national 8-hour $O_3$ primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour $SO_2$ standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/$m^3$ to 12.0 μg/$m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/$m^3$, as was the annual secondary standard of 15 μg/$m^3$. The existing 24-hour $PM_{10}$ standards (primary and secondary) of 150 μg/$m^3$ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

[j] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/$m^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

#### 2.2.2.2 Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807. The California TAC list identifies more than 200 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment (HRA), and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation resulted in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several Airborne Toxic Control Measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

##### California Health and Safety Code Section 41700

Section 41700 of the California Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

##### Safety Training on Valley Fever Assembly Bill 203

AB 203 adds Section 6709 to the Labor Code and requires employers to provide effective valley fever awareness and prevention training for all construction employees at risk of prolonged exposure to dust in Fresno, Kern, Kings, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Santa Barbara, Tulare, and Ventura Counties by May 1, 2020, annually by that date thereafter, and again before an employee begins work that is reasonably anticipated to cause exposure to substantial dust disturbance.

### 2.2.3 Local Regulations

#### 2.2.3.1 Ventura County Air Pollution Control District

The VCAPCD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Ventura County portion of the SCCAB. The VCAPCD jurisdiction includes all of Ventura County.

##### Air Quality Plans

VCAPCD adopted the 2022 Ventura County Air Quality Management Plan (AQMP) on December 14, 2022, which presents Ventura County's strategy to attain the 2015 federal 8-hour $O_3$ standard of 70 parts per billion as required by the federal Clean Air Act Amendments of 1990 and applicable EPA clean air regulations. This is the only federal clean air standard Ventura County would not meet by the compliance deadline of August 3, 2027. Photochemical air quality modeling indicates that Ventura County will attain the 2015 federal 8-hour $O_3$ standard by 2026 using local, state, and federal clean air programs. Additionally, EPA determined that Ventura County had attained the 2008 federal 8-hour $O_3$ standard by the 2016 AQMP's attainment date. Overall, the draft 2022 AQMP provides an updated emissions inventory, local and state air pollutant control measures, new emission forecasts and projections, a new federal conformity budget for transportation projects, and demonstration that Ventura County will attain the federal 8-hour $O_3$ standard (VCAPCD 2022).

##### Applicable Rules

The VCAPCD's primary means of implementing air quality plans is by adopting and enforcing rules and regulations. Stationary sources within the jurisdiction are regulated by the VCAPCD's permit authority over such sources and through its review and planning activities. Unlike stationary source projects, which encompass very specific types of equipment, process parameters, throughputs, and controls, air emissions sources from land use development projects are mainly mobile sources (traffic) and area sources (small dispersed stationary and other non-mobile sources), including exempt (i.e., no permit required) sources such as consumer products, landscaping equipment, furnaces, and water heaters. Mixed-use land development projects may include nonexempt sources including devices such as small to large boilers, stationary internal combustion engines, gas stations, or asphalt batch plants.

Notwithstanding nonexempt stationary sources, which would be permitted on a case-by-case basis, the following regulations generally apply to land use development projects and are described below (VCAPCD 2006a):

##### Regulations

- **Regulation II, Permits.** This regulation includes permits for operating and construction and New Source Review requirements. New Source Review requirements of this regulation under Rule 26 are applicable to new, replacement, modified, or relocated equipment/sources.
- **Regulation IV, Rule 51, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the

public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

- **Regulation IV, Rule 55, Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 55 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities.
- **Regulation IV, Rule 62.7, Asbestos: Demolition and Renovation.** The purpose of this rule is to specify work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials. The requirements for demolition and renovation activities include asbestos surveying; notification, removal procedures, and time schedules; handling and cleanup procedures; and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.
- **Regulation IV, Rule 74.2, Architectural Coatings.** This rule serves to limit the VOC content of architectural coatings used on projects in Ventura County. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the Ventura County must comply with the current VOC standards set in this rule.
- **Regulation IV, Rule 74.29, Soil Decontamination Operations.** This rule applies to projects sites that require remediation to remove gasoline, diesel fuel, or jet fuel, including underground fuel storage tanks. Under this rule, contaminated soils that are being removed are required to be treated with a vapor suppressant or covered to minimize emissions of ROG (VOC). Soil vapor extraction, bioremediation, and bioventing of soils is also covered under this rule.

#### 2.2.3.2 Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the federally designated metropolitan planning organization for the Southern California region and is the largest metropolitan planning organization in the United States.

With respect to air quality planning and other regional issues, SCAG has prepared the 2008 Regional Comprehensive Plan: Helping Communities Achieve a Sustainable Future (2008 RCP) for the region (SCAG 2008). The 2008 RCP sets the policy context in which SCAG participates in and responds to the VCAPCD air quality plans and builds off the VCAPCD AQMP processes that are designed to meet health-based criteria pollutant standards in several ways (SCAG 2008). First, it complements AQMPs by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in AQMPs. Second, the 2008 RCP emphasizes the need for local initiatives that can reduce the region's GHG emissions that contribute to climate change, an issue that is largely outside the focus of local attainment plans. Third, the 2008 RCP emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

On April 7, 2016, SCAG's Regional Council adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2016 RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The 2016 RTP/SCS was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders within the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In June 2016, SCAG received its conformity determination from the Federal Highway Administration and the Federal Transit Administration indicating that all air quality conformity requirements for the 2016 RTP/SCS and associated 2015 Federal Transportation Improvement Program Consistency Amendment through Amendment 15-12 have been met (SCAG 2016). The VCAPCD 2016 AQMP applies the SCAG growth forecasts assumed in the 2016 RTP/SCS (SCAQMD 2017).

On September 3, 2020, SCAG adopted Connect SoCal, the 2020–2045 RTP/SCS, which is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, planning strategies, and the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The updated growth projections from the adopted 2020–2045 RTP/SCS have been incorporated into the VCAPCD 2022 AQMP (SCAG 2020; VCAPCD 2022).

#### 2.2.3.3 City of Thousand Oaks

The City of Thousand Oaks adopted the Thousand Oaks General Plan (General Plan) on December 22, 1970. The General Plan has been amended several times with the last amendment adopted in 2017. The General Plan provides a long-range guide for the physical development of the City's planning area. It comprises statement goals and policies related to the community's development and various elements that provide more detailed policies and standards in certain topic areas. Chapter 7 of the City's Conservation Element addresses the impacts of global climate change in relation to the City. Although the policies within the Conservation Element are primarily directed towards GHG emission-reductions, as discussed in further detail in Section 3.2.3.3, City of Thousand Oaks, the measures would also achieve co-benefits of reducing air pollutants. The General Plan does not have an Air Quality Element. However, the City does have a general policy to place a high priority on maintaining and improving local and regional air quality.

## 2.3 Regional and Local Air Quality Conditions

### 2.3.1 South Central Coast Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved.

Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on CAAQS rather than the NAAQS. Table 2 depicts the current attainment status of the project site with respect to the NAAQS and CAAQS, as well as the attainment classifications for the criteria pollutants are outlined in Table 2.

### Table 2. South Central Coast Air Basin Attainment Status

| Pollutant | Designation/Classification | |
|---|---|---|
| | National Designation | California Designation |
| Ozone ($O_3$) – 1-hour | No national standard | Nonattainment |
| Ozone ($O_3$) – 8-hour | Nonattainment/Serious | Nonattainment |
| Nitrogen dioxide ($NO_2$) | Unclassifiable/attainment | Attainment |
| Carbon monoxide (CO) | Unclassifiable/attainment | Attainment |
| Sulfur dioxide ($SO_2$) | Unclassifiable/attainment | Attainment |
| Respirable particulate matter ($PM_{10}$) | Nonattainment | Nonattainment |
| Fine particulate matter ($PM_{2.5}$) | Unclassifiable/attainment | Attainment |
| Lead (Pb)[1] | Unclassifiable/attainment | Attainment |
| Sulfates ($SO_4$) | No national standard | Attainment |
| Hydrogen sulfide ($H_2S$) | No national standard | Unclassified |
| Vinyl chloride[1] | No national standard | No designation |
| Visibility-reducing particles | No national standard | Unclassified |

**Sources:** VCAPCD 2020; EPA 2018 (national); CARB 2019e (California).

**Notes:** Attainment = meets the standards; Attainment (maintenance) = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or unclassifiable = insufficient data to classify; Unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

1 CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined.

In summary, EPA has designated the SCCAB as a nonattainment area for the national 8-hour $O_3$ standard, and CARB has designated the SCCAB as a nonattainment area for the California 1-hour and 8-hour $O_3$ standards. The SCCAB has been designated as a nonattainment area for the California and national $PM_{10}$ standards. The SCCAB is designated as unclassified or attainment for all other criteria air pollutants.

## 2.3.2 Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. The VCAPCD and CARB monitor local ambient air quality at the project site. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The most recent background ambient air quality data from 2019 to 2021 are presented in Table 3. The Thousand Oaks monitoring station, located at 2323 Moorpark

Road, Thousand Oaks, California, 91360, is the nearest air quality monitoring station to the project site, located approximately 2.5 miles away. The data collected at this station are considered representative of the air quality experienced in the project vicinity. Air quality data for $O_3$ and $PM_{2.5}$ from the Thousand Oaks monitoring station are provided in Table 3. Because $NO_2$, CO, and $PM_{10}$ are not monitored at the Thousand Oaks monitoring station, $NO_2$ and $PM_{10}$ measurements were taken from the Simi Valley monitoring station located at 5400 Cochran Street, Simi Valley, California, 93063 (12.6 miles) and CO measurements were taken from the Reseda monitoring station located at 18330 Gault Street, Reseda, California, 91335 (19.3 miles). $SO_2$ is not currently monitored in Ventura County and data are not available. The number of days exceeding the ambient air quality standards are also shown in Table 3.

## Table 3. Local Ambient Air Quality Data

| Monitoring Station | Unit | Averaging Time | Agency/Method | Ambient Air Quality Standard | Measured Concentration by Year | | | Exceedances by Year | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 |
| **Ozone ($O_3$)** | | | | | | | | | | |
| Thousand Oaks | ppm | Maximum 1-hour concentration | California | 0.09 | 0.082 | 0.097 | 0.077 | 0 | 1 | 0 |
| | ppm | Maximum 8-hour concentration | California | 0.070 | 0.074 | 0.084 | 0.073 | 2 | 7 | 2 |
| | | | National | 0.070 | 0.074 | 0.084 | 0.073 | 1 | 7 | 1 |
| **Nitrogen Dioxide ($NO_2$)** | | | | | | | | | | |
| Simi Valley | ppm | Maximum 1-hour concentration | California | 0.18 | 0.045 | 0.042 | 0.035 | 0 | 0 | 0 |
| | | | National | 0.100 | 0.045 | 0.042 | 0.035 | 0 | 0 | 0 |
| | ppm | Annual concentration | California | 0.030 | 0.007 | 0.007 | 0.007 | — | — | — |
| | | | National | 0.053 | 0.007 | 0.007 | 0.007 | — | — | — |
| **Carbon Monoxide (CO)** | | | | | | | | | | |
| Reseda | ppm | Maximum 1-hour concentration | California | 20 | 2.6 | 2.0 | 2.6 | — | — | — |
| | | | National | 35 | 2.6 | 2.0 | 2.6 | — | — | — |
| | ppm | Maximum 8-hour concentration | California | 9.0 | 2.2 | 1.7 | 1.9 | — | — | — |
| | | | National | 9 | 2.2 | 1.7 | 1.9 | — | — | — |
| **Coarse Particulate Matter ($PM_{10}$)[a]** | | | | | | | | | | |
| Simi Valley | μg/m³ | Maximum 24-hour concentration | California | 50 | 124.3 | 90.1 | 101.5 | (4) 4.0 | (6) — | (3) 3.0 |
| | | | National | 150 | 127.9 | 90.5 | 103.7 | (0) 0.0 | (0) 0.0 | (0) 0.0 |
| | μg/m³ | Annual concentration | California | 20 | 19.5 | — | 21.9 | — | — | — |

## Table 3. Local Ambient Air Quality Data

| Monitoring Station | Unit | Averaging Time | Agency/Method | Ambient Air Quality Standard | Measured Concentration by Year | | | Exceedances by Year | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 |
| Fine Particulate Matter ($PM_{2.5}$)[a] | | | | | | | | | | |
| Thousand Oaks | μg/m³ | Maximum 24-hour concentration | National | 35 | 24.5 | 36.3 | 29.1 | (0) 0.0 | (1) 1.0 | (0) 0.0 |
| | μg/m³ | Annual concentration | California | 12 | 7.2 | 7.5 | 7.6 | — | — | — |
| | | | National | 12.0 | 7.2 | 7.4 | 7.6 | — | — | — |

**Sources:** CARB 2020; EPA 2020.
**Notes:** — = not available; μg/m³ = micrograms per cubic meter; ND = insufficient data available to determine the value; ppm = parts per million
Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (https://www.epa.gov/outdoor-air-quality-data) represent the highest concentrations experienced over a given year.
Exceedances of national and California standards are only shown for $O_3$ and particulate matter. Daily exceedances for particulate matter are estimated days because $PM_{10}$ and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed national or California standards during the years shown. There is no national standard for 1-hour $O_3$, annual $PM_{10}$, or 24-hour $SO_2$, nor is there a California 24-hour standard for $PM_{2.5}$.
$SO_2$ is not currently monitored in the County and data is not available; therefore, it is not included in the table.
Thousand Oaks Station is located at 2323 Moorpark Road, Thousand Oaks, CA, 91360.
Simi Valley Monitoring Station is located at 5400 Cochran Street, Simi Valley, CA, 93063.
Reseda Monitoring Station located at 18330 Gault Street, Reseda, CA, 91335.

[a] Measurements of $PM_{10}$ and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard

# 2.4 Significance Criteria and Methodology

## 2.4.1 Thresholds of Significance

The following criteria, as established in Appendix G of the CEQA Guidelines, are used to determine if a project could potentially have a significant adverse effect related to air quality. The significance criteria used to evaluate the project impacts to air quality is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the project would (14 CCR 15000 et seq.):

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

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the project would have a significant impact on air quality.

### Ventura County Air Pollution Control District

VCAPCD's Guidelines recommend specific air emissions criteria and threshold levels for determining whether a project may have a significant adverse impact on air quality within the SCCAB. The project would have a significant impact if operational emissions exceed 25 pounds per day of reactive organic compounds (also referred to as ROGs, but referred to in this report as VOCs) or 25 pounds per day of $NO_x$. The 25 pounds per day threshold for VOCs and $NO_x$ is not intended to be applied to construction emissions because such emissions are temporary. Nevertheless, VCAPCD's Guidelines state that construction-related emissions should be mitigated if estimates of VOC or $NO_x$ emissions from heavy-duty construction equipment exceed 25 pounds per day for either VOCs or $NO_x$. The emissions thresholds above are not applicable to equipment or operations required to have VCAPCD permits (Authority to Construct or Permit to Operate) that are generally required for stationary and portable (non-vehicular) equipment or operations that may emit air pollutants (VCAPCD 2003). The VCAPCD permit system is separate from CEQA and involves reviewing equipment design, followed by inspections, to ensure that the equipment will be built and operated in compliance with applicable VCAPCD regulations.

VCAPCD has not established quantitative thresholds for particulate matter for either operation or construction. However, VCAPCD indicates that a project that may generate fugitive dust emissions in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons; or that may endanger the comfort, repose, health, or safety of any person; or that may cause or have a natural tendency to cause injury or damage to business or property, would have a significant air quality impact. This threshold applies to the generation of fugitive dust during construction grading and excavation activities. The VCAPCD Guidelines recommend application of fugitive dust mitigation measures for all dust-generating activities. Such measures include minimizing the project disturbance area, watering the site prior to commencement of ground-disturbing activities, covering all truck loads, and limiting on-site vehicle speeds to 15 miles per hour or less (VCAPCD 2003).

## 2.4.2 Approach and Methodology

### 2.4.2.1 Construction Emissions

Emissions from the construction phase of the project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the project applicant and CalEEMod default values when project specifics were not known.

#### Cancer Center Site

For purposes of estimating project emissions, and based on information provided by the project applicant, it is assumed that construction of the project would commence in February 2024[3] and would last approximately 18 months, ending in August 2025. The analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Demolition (1 month)
- Grading (3 months)
- Building construction (15 months)
- Paving (4 months)
- Architectural coating (5 months)

There would be 30,335 cubic yards of cut and 17,865 cubic yards of fill, resulting in 12,470 cubic yards of export during the grading phase. As a project design feature, the project has committed to using Tier 4 Final certified construction equipment. The construction equipment mix and vehicle trips used for estimating the project-generated construction emissions were provided by the general contractor for the project and are shown in Table 4. These assumptions are included as Appendix C.

**Table 4. Construction Scenario Assumptions – Cancer Center Site**

| | One-Way Vehicle Trips | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Construction Phase | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type | Quantity | Usage Hours | Days Used |
| Demolition | 16 | 4 | 14 | Excavators | 1 | 8 | 15 |
| | | | | Rubber Tired Dozers | 1 | 8 | 14 |

3 The analysis assumes a construction start date of February 2024, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

## Table 4. Construction Scenario Assumptions – Cancer Center Site

| Construction Phase | One-Way Vehicle Trips | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type | Quantity | Usage Hours | Days Used |
| Grading | 16 | 4 | 196 | Excavators | 1 | 8 | 30 |
| | | | | Rubber Tired Dozers | 1 | 8 | 10 |
| | | | | Tractors/Loaders/ Backhoes | 3 | 8 | 50 |
| Building Construction | 20 | 10 | 0 | Cranes | 1 | 7 | 20 |
| | | | | Forklifts | 2 | 8 | 14 |
| | | | | Tractors/Loaders/ Backhoes | 1 | 7 | 90 |
| | | | | Welders | 2 | 8 | 30 |
| | | | | No Equipment | 0 | 0 | 275 |
| Paving | 20 | 4 | 0 | Pavers | 1 | 4 | 36 |
| | | | | Paving Equipment | 1 | 6 | 30 |
| | | | | Rollers | 1 | 6 | 30 |
| | | | | Tractors/Loaders/ Backhoes | 1 | 8 | 113 |
| Architectural Coating | 4 | 2 | 0 | No Equipment | 0 | 0 | 120 |

**Notes:** See Appendix A for details.

The project would implement dust control strategies in accordance with VCAPCD Rule 55. To reflect implementation of proposed dust control strategies, the following was assumed in CalEEMod:

- Water exposed area two times per day (55% reduction in PM10 and PM2.5).
- Limit on-site unpaved road travel to 25 miles per hour (44% reduction in $PM_{10}$ and $PM_{2.5}$).

### Janss Road

For purposes of estimating project emissions, and based on information provided by the project applicant, it is assumed that construction of the project would commence in February 2027[4] and would last approximately 13 months, ending in February 2028. The analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Demolition (1 month)

4 The analysis assumes a construction start date of February 2027, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

- Site Preparation (1 week)
- Grading (2 weeks)
- Building construction (11 months)
- Paving (2 weeks)
- Architectural coating (2 weeks)

As there is no development plan for the Janss Site, no cut or fill was assumed. The existing parking lot would need to be removed during the demolition phase and is expected to result in 3,512 tons of debris to be hauled offsite. As a project design feature, the project has committed to using Tier 4 Final certified construction equipment. As no development plan or general contractor is selected for the Janss Site, the CalEEMod default construction assumptions were used based on the buildout of 9 single-family homes. The construction equipment mix and vehicle trips used for estimating the project-generated construction emissions are shown in Table 5.

## Table 5. Construction Scenario Assumptions – Janss Road Site

| Construction Phase | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|
| | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type | Quantity | Usage Hours |
| Demolition | 14 | 4 | 36 | Concrete/Industrial Saws | 1 | 8 |
| | | | | Tractors/Loaders/ Backhoes | 3 | 8 |
| | | | | Rubber Tired Dozers | 1 | 8 |
| Site Preparation | 8 | 4 | 0 | Graders | 1 | 8 |
| | | | | Scrapers | 1 | 8 |
| | | | | Tractors/Loaders/ Backhoes | 1 | 7 |
| Grading | 10 | 4 | 0 | Graders | 1 | 8 |
| | | | | Rubber Tired Dozers | 1 | 8 |
| | | | | Tractors/Loaders/ Backhoes | 2 | 7 |
| Building Construction | 4 | 4 | 0 | Cranes | 1 | 8 |
| | | | | Forklifts | 2 | 7 |
| | | | | Generator Sets | 1 | 8 |
| | | | | Tractors/Loaders/ Backhoes | 1 | 6 |
| | | | | Welders | 3 | 8 |
| Paving | 16 | 4 | 0 | Cement and Mortar Mixers | 1 | 8 |
| | | | | Pavers | 1 | 8 |
| | | | | Paving Equipment | 1 | 8 |
| | | | | Rollers | 2 | 8 |

### Table 5. Construction Scenario Assumptions – Janss Road Site

| Construction Phase | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|
| | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type | Quantity | Usage Hours |
| | | | | Tractors/Loaders/ Backhoes | 1 | 8 |
| Architectural Coating | 2 | 4 | 0 | Air Compressors | 1 | 6 |

**Notes:** See Appendix A for details.

The project would implement dust control strategies in accordance with VCAPCD Rule 55. To reflect implementation of proposed dust control strategies, the following was assumed in CalEEMod:

- Water exposed area two times per day (55% reduction in PM10 and PM2.5).
- Limit on-site unpaved road travel to 25 miles per hour (44% reduction in $PM_{10}$ and $PM_{2.5}$).

#### Construction Health Risk Assessment

A construction HRA was performed to evaluate potential health risk associated with construction of the project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting construction HRA documentation, including detailed assumptions, is presented in Appendix B.

For risk assessment purposes, $PM_{10}$ in diesel exhaust is considered DPM, originating mainly from off-road equipment operating at a defined location for a given length of time at a given distance from sensitive receptors. Less-intensive, more-dispersed emissions result from on road vehicle exhaust (e.g., heavy-duty diesel trucks). For the construction HRA, the CalEEMod scenario for the project was adjusted to reduce diesel truck one-way trip distances to 0.25 miles to estimate emissions from truck pass-by at proximate receptors (SJVAPCD 2018).

The air dispersion modeling methodology was based on generally accepted modeling practices of VCAPCD (VCAPCD 2003). Air dispersion modeling was performed using EPA's American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 21112 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 11.2.0. The HRA followed the Office of Environmental Health Hazard Assessment 2015 guidelines (OEHHA 2015) and VCAPCD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the VCAPCD and EPA guidance and identified as representative of the project site activities. Principal parameters of this modeling are presented in Table 6.

### Table 6. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters – Construction Health Risk Assessment

| Parameter | Details |
|---|---|
| Meteorological Data | The latest 5-year meteorological data (2015–2019) for the Thousand Oaks Station (Station ID 23130) from VCAPCD were downloaded and then input to AERMOD. For |

### Table 6. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters – Construction Health Risk Assessment

| Parameter | Details |
|---|---|
| | cancer or chronic noncancer risk assessments, the average cancer risk of all years modeled was used. |
| Urban versus Rural Option | Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. Rural dispersion option was selected based on the Auer method specified in EPA's 40 CFR Part 51, Appendix W. |
| Terrain Characteristics | The terrain in the vicinity of the modeled project site is generally hilly. The elevation of the modeled site is about 808 feet above sea level. Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate. |
| Elevation Data | Digital elevation data were imported into AERMOD and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a 30-meter resolution. |
| Emission Sources and Release Parameters | Air dispersion modeling of PM from construction equipment was conducted using emissions estimated using the CalEEMod, assuming emissions would occur 8 hours per day, 6 days per week. The project area was modeled as a series of line-volume sources. On-site emissions of vehicles were also included, assuming a 0.25-mile travel distance. |
| Source Release Characterizations | Based on EPA methodology, the modeled line volume sources would result in a release height of 3.4 meters, a plume height of 6.8 meters, and a plume width of 8.6 meters for off-road equipment and diesel trucks (EPA 2015). |
| Receptors | Discrete receptors were placed over residences proximate to the project. |

**Notes**: VCAPCD = Ventura County Air Pollution Control District; AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; EPA = U.S. Environmental Protection Agency; CFR = Code of Federal Regulations; PM = particulate matter; CalEEMod = California Emissions Estimator Model.
See Appendix B.

AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1 gram per second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual, and the noncancerous chronic health indices. There is no reference exposure level for acute health impacts from DPM, and, thus, acute risk was not evaluated.

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in one million. Maximum Individual Cancer Risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations. For the construction HRA, the TAC exposure period was assumed to be from third trimester of pregnancy for 18 months for all receptor locations (i.e., the assumed duration of project construction) for the Cancer Center Site and 13 months for the Janss Road Site. The exposure pathway for DPM is inhalation only.

The VCAPCD has also established noncarcinogenic risk parameters for use in HRAs because some TACs increase noncancerous health risk due to long-term (chronic) exposures and some TACs increase noncancerous health risk due to short-term (acute) exposures. Chronic exposure is evaluated in the construction HRA. Noncarcinogenic risks are quantified by calculating a hazard index, expressed as the ratio between the ambient pollutant concentration and its toxicity or reference exposure level, which is a concentration at or below which health effects are not likely to occur. The chronic hazard index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. A hazard index less of than 1.0 means that adverse health effects are not expected.

#### 2.4.2.2 Operational Emissions

**Cancer Center Site**

Emissions from the operational phase of the project were estimated using CalEEMod Version 2022. Operational year 2025 was assumed consistent with completion of project construction.

##### Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product ROG emissions are estimated in CalEEMod based on the floor area of nonresidential buildings and on the default factor of pounds of ROG per building square foot per day. For parking lot land uses, CalEEMod estimates ROG emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of ROG per square foot per day. The VOC emissions factor is based on the VOC content of the surface coatings, and VCAPCD Rule 74.2 (Architectural Coatings) governs the VOC content for interior and exterior coatings. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2022).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. For Ventura County, the average annual “summer” days are estimated to 365 days; however, it is assumed that landscaping equipment would likely only operate during the week (not weekends), so operational days were assumed to be 180 days per year in CalEEMod (CAPCOA 2022).

##### Energy Sources

As represented in CalEEMod, energy sources include GHG emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to GHGs, because GHG emissions occur at the site of the power plant, which is typically off site. Emissions were calculated by multiplying the energy use by the utility’s carbon intensity (pounds of GHGs per megawatt-hour for electricity or 1,000 British thermal units for natural gas) for carbon dioxide ($CO_2$) and other GHGs. Annual electricity emissions were estimated in CalEEMod using the emissions factors for Southern California Edison, which would be the energy source provider for the proposed project.

The proposed project would be subject to the 2022 standards from Title 24 of the California Code of Regulations, which went into effect on January 1, 2023. However, CalEEMod assumes compliance with the 2019 Title 24 standards. The proposed project would include electric-vehicle charging stations in accordance with the California Green Building Standards Code (CALGreen) and 2022 Title 24 standards; however, the electric-vehicle charging stations were not quantified in this analysis.

### Mobile Sources

Following completion of construction activities, the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the employees working at the project site and visitors to the project. CalEEMod default data, including trip characteristics, trip lengths, and emissions factors, were used for the model inputs. Project trip rates were taken from the Institute of Transportation Engineers Trip Generation 11th Generation for land use Medical Office, consistent with the Traffic and Parking Assessment (Associated Transportation Engineers 2022). Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated use, as modeled in CalEEMod. Emissions factors representing the vehicle mix and emissions for 2025 were used to estimate emissions associated with vehicular sources.

### Stationary Sources

The project would include a diesel emergency backup generator in case of power outages. The generator is a 1,220 horsepower Tier 2 equipped with a Level 3 diesel particulate filter. The generator was assumed to operate up to 1 hour per day and up to 50 hours per year for maintenance and testing in accordance with VCAPCD Rule 74.9.

### Operational Health Risk Assessment

An operational HRA was performed to evaluate potential health risk associated with operation of the project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting operational HRA documentation, including detailed assumptions, is presented in Appendix B.

For risk assessment purposes, $PM_{10}$ in diesel exhaust is considered DPM and would originate from testing and maintenance of the emergency generator operating at a defined location for a given length of time at a given distance from sensitive receptors.

The air dispersion modeling methodology was based on generally accepted modeling practices of VCAPCD (VCAPCD 2003). Air dispersion modeling was performed using EPA's AERMOD Version 21112 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 11.2.0. The HRA followed the Office of Environmental Health Hazard Assessment 2015 guidelines (OEHHA 2015) and VCAPCD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the VCAPCD and EPA guidance and identified as representative of the project site activities. Principal parameters of this modeling are presented in Table 7.

## Table 7. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters – Operational Health Risk Assessment

| Parameter | Details |
|---|---|
| Meteorological Data | The latest 5-year meteorological data (2015–2019) for the Thousand Oaks Station (Station ID 23130) from VCAPCD were downloaded and then input to AERMOD. For cancer or chronic noncancer risk assessments, the average cancer risk of all years modeled was used. |
| Urban versus Rural Option | Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. Rural dispersion option was selected based on the Auer method specified in EPA's 40 CFR Part 51, Appendix W. |
| Terrain Characteristics | The terrain in the vicinity of the modeled project site is generally hilly. The elevation of the modeled site is about 808 feet above sea level. Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate. |
| Elevation Data | Digital elevation data were imported into AERMOD, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a 30-meter resolution. |
| Emission Sources and Release Parameters | Air dispersion modeling of PM from the emergency generator was conducted using emissions estimated using the CalEEMod, assuming emissions would occur 1 hours per day and 50 hours per year. The project area was modeled as a point source. |
| Source Release Characterizations | Based on a 2016 survey of the SBCAPCD's permitted generators, the modeled generator was assumed to have a stack temperature of 880°F, a stack diameter of 0.96 feet, a release height of 11 feet, and exhaust flow rate of 9,894 cubic feet per minute (SBCAPCD 2020). |
| Receptors | Discrete receptors were placed over residences proximate to the project. |

**Note**: VCAPCD = Ventura County Air Pollution Control District; AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; EPA = U.S. Environmental Protection Agency; CFR = Code of Federal Regulations; PM = particulate matter; CalEEMod = California Emissions Estimator Model; SBCAPCD = Santa Barbara County Air Pollution Control District.
See Appendix B.

AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1 gram per second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual, and the noncancerous chronic health indices. There is no reference exposure level for acute health impacts from DPM, and, thus, acute risk was not evaluated.

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in one million. Maximum Individual Cancer Risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations. For the operational HRA, the TAC exposure period was assumed to be from third trimester of pregnancy for 30 years for all receptor locations in accordance with Office of Environmental Health Hazard Assessment guidelines (OEHHA 2015). The exposure pathway for DPM is inhalation only.

The VCAPCD has also established noncarcinogenic risk parameters for use in HRAs because some TACs increase noncancerous health risk due to long-term (chronic) exposures and some TACs increase noncancerous health risk due to short-term (acute) exposures. Chronic exposure is evaluated in the construction HRA. Noncarcinogenic risks are quantified by calculating a hazard index, expressed as the ratio between the ambient pollutant concentration and its toxicity or reference exposure level, which is a concentration at or below which health effects are not likely to occur. The chronic hazard index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. A hazard index less of than 1.0 means that adverse health effects are not expected.

**Janss Road Site**

Emissions from the operational phase of the project were estimated using CalEEMod Version 2022. Operational year 2028 was assumed consistent with completion of project construction.

### Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product ROG emissions are estimated in CalEEMod based on the floor area of residential buildings and on the default factor of pounds of ROG per building square foot per day. For parking lot land uses, CalEEMod estimates ROG emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of ROG per square foot per day. The VOC emissions factor is based on the VOC content of the surface coatings, and VCAPCD Rule 74.2 (Architectural Coatings) governs the VOC content for interior and exterior coatings. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2022).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. For Ventura County, the average annual “summer” days are estimated to 365 days; however, it is assumed that landscaping equipment would likely only operate during the week (not weekends), so operational days were assumed to be 180 days per year in CalEEMod (CAPCOA 2022).

### Energy Sources

As represented in CalEEMod, energy sources include GHG emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to GHGs, because GHG emissions occur at the site of the power plant, which is typically off site. Emissions were calculated by multiplying the energy use by the utility’s carbon intensity (pounds of GHGs per megawatt-hour for electricity or 1,000 British thermal units for natural gas) for carbon dioxide ($CO_2$) and other GHGs. Annual electricity emissions were estimated in CalEEMod using the emissions factors for Southern California Edison, which would be the energy source provider for the proposed project.

The proposed project would be subject to the 2022 standards from Title 24 of the California Code of Regulations, which went into effect on January 1, 2023. However, CalEEMod assumes compliance with the 2019 Title 24 standards.

#### Mobile Sources

Following completion of construction activities, the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the employees working at the project site and visitors to the project. CalEEMod default data, including trip characteristics, trip rates, trip lengths, and emissions factors, were used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated use, as modeled in CalEEMod. Emissions factors representing the vehicle mix and emissions for 2028 were used to estimate emissions associated with vehicular sources.

## 2.5 Impact Analysis

### 2.5.1 Would the Project Conflict with or Obstruct Implementation of the Applicable Air Quality Plan?

A project is non-conforming with an air quality plan if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable VCAPCD rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan, and is consistent with the growth forecasts in the applicable plan (or is directly included in the applicable plan). Zoning changes, specific plans, general plan amendments, and similar land use plan changes that do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to comply with the applicable air quality plan (VCAPCD 2003).

Consistency with land use and population forecasts in local and regional plans, including the AQMP, is required under CEQA for all projects. VCAPCD further describes consistency with the AQMP for projects subject to these guidelines, which means that direct and indirect emissions associated with a project are accounted for in the AQMP's emissions growth assumptions and the project is consistent with policies adopted in the AQMP. The 2022 AQMP was adopted by the VCAPCD Board on December 13, 2022, and is the most recent applicable air quality plan. The 2022 AQMP is the 3-year update required by the state to show how VCAPCD plans to meet the 2015 federal 8-hour $O_3$ standard (VCAPCD 2022).

**Cancer Center Site**

The AQMP relies primarily on the land use and population projections provided by SCAG and the CARB on-road emissions forecast as a basis for vehicle emission forecasting. The current zoning for the site is Industrial, and the project would implement an industrial use. The 2022 AQMP relied on growth projections in SCAG's 2020–2045 RTP/SCS (SCAG 2020). In 2016, SCAG estimated that the City had 70,100 jobs and in 2045 would have 80,000 jobs for an additional 9,900 jobs or 330 jobs per year.

According to the project applicant, there would be approximately 40 jobs created by the project. The project would not exceed the projected annual employment growth in the City. Therefore, the project is within the growth assumptions that underlie the emissions forecasts in the 2022 AQMP. In addition, the project and cumulative projects combined would remain consistent with the growth projections. As a result, the project would not conflict with or obstruct implementation of the AQMP, and impacts would be **less than significant.**

**Janss Road Site**

The AQMP relies primarily on the land use and population projections provided by SCAG and the CARB on-road emissions forecast as a basis for vehicle emission forecasting. The current zoning for the site is Institutional, and the project would implement a residential use. The 2022 AQMP relied on growth projections in SCAG's 2020–2045 RTP/SCS (SCAG 2020). In 2016, SCAG estimated that the City had 46,000 households and in 2045 would have 51,300 households for an additional 5,300 households or 182 households per year.

The Janss Road Site would include up to 9 residential units. The project would not exceed the projected annual household growth in the City. Therefore, the project is within the growth assumptions that underlie the emissions forecasts in the 2022 AQMP. In addition, the project and cumulative projects combined would remain consistent with the growth projections. As a result, the project would not conflict with or obstruct implementation of the AQMP, and impacts would be **less than significant.**

## 2.5.2 Would the Project Result in a Cumulatively Considerable Net Increase of any Criteria Pollutant for Which the project Region is Non-Attainment Under an Applicable Federal or State Ambient Air Quality Standard?

Past, present, and future development projects may contribute to adverse air quality impacts in the SCCAB on a cumulative basis. By its nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and VCAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the applied significance thresholds, it would have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

Construction and operation of the project would result in emissions of criteria air pollutants, which may result in a cumulatively considerable net increase in emissions of criteria air pollutants for which the SCCAB is designated as nonattainment under the NAAQS or CAAQS. As discussed in Section 2.3.1, the SCCAB has been designated as a nonattainment area for $O_3$ and $PM_{10}$ under national and/or California standards. The following discussion quantitatively evaluates potential short-term construction and long-term operational impacts that would result from implementation of the project.

### Construction Emissions

Construction of the project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and ROG off-gassing) and off-site sources (i.e., vendor trucks and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

As discussed in Section 2.4.2.1, Construction Emissions, criteria air pollutant emissions associated with temporary construction activity were quantified using CalEEMod. Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during construction (2024–2025 for the Cancer Center Site and 2027-2028 for Janss Road Site). Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the project applicant and are intended to represent a reasonable scenario based on the best information available. Default values provided in CalEEMod were used where detailed project information was not available.

Implementation of the project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in $PM_{10}$ and $PM_{2.5}$ emissions. The project would implement various dust control strategies and would be required to comply with VCAPCD Rule 55 to control dust emissions generated during the grading activities. Proposed construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites and unpaved roads two times per day depending on weather conditions. Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of ROGs, $NO_x$, CO, $PM_{10}$, and $PM_{2.5}$.

Table 8 presents the estimated maximum daily construction emissions generated during construction of the Cancer Center Site. Details of the emission calculations are provided in Appendix A.

## Table 8. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Cancer Center Site

| Year | ROGs | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| Summer | | | | | | |
| 2024 | 0.51 | 3.98 | 16.98 | 0.03 | 3.54 | 1.61 |
| 2025 | 2.85 | 1.71 | 8.32 | 0.01 | 1.03 | 0.26 |
| **Maximum** | 2.85 | 3.98 | 16.98 | 0.03 | 3.54 | 1.61 |
| Winter | | | | | | |
| 2024 | 2.58 | 3.08 | 7.99 | 0.02 | 0.98 | 0.22 |
| 2025 | 2.58 | 0.61 | 1.52 | 0.00 | 0.42 | 0.11 |
| **Maximum** | 2.58 | 3.08 | 7.99 | 0.02 | 0.98 | 0.22 |
| *VCAPCD Threshold* | *25* | *25* | — | — | — | — |
| **Threshold Exceeded?** | **No** | **No** | — | — | — | — |

**Notes:** ROG = reactive organic gas; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; VCAPCD = Ventura County Air Pollution Control District; — = no threshold for this pollutant; ND = no data.
See Appendix A for complete results.

As shown in Table 8, Cancer Center Site construction would not exceed 25 pounds per day of VOC or NOx emissions. Therefore, construction-related impacts would be less than significant. The maximum daily emissions during construction of Janss Road are shown in Table 9.

## Table 9. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Janss Road

| Year | ROGs | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| Summer | | | | | | |
| 2027 | 0.26 | 3.89 | 13.03 | 0.02 | 0.13 | 0.06 |
| 2028 | ND | ND | ND | ND | ND | ND |
| **Maximum** | 0.26 | 3.89 | 13.03 | 0.02 | 0.13 | 0.06 |
| Winter | | | | | | |
| 2027 | 0.34 | 5.61 | 16.08 | 0.04 | 4.00 | 1.42 |
| 2028 | 8.48 | 3.89 | 13.00 | 0.02 | 0.27 | 0.08 |
| **Maximum** | 8.48 | 5.61 | 16.08 | 0.04 | 4.00 | 1.42 |
| *VCAPCD Threshold* | *25* | *25* | — | — | — | — |
| **Threshold Exceeded?** | **No** | **No** | — | — | — | — |

**Notes:** ROG = reactive organic gas; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; VCAPCD = Ventura County Air Pollution Control District; — = no threshold for this pollutant; ND = no data.
See Appendix A for complete results.

As shown in Table 9, Janss Road Site construction would not exceed 25 pounds per day of VOC or NOx emissions. Therefore, construction impacts would be less than significant.

### Operational Emissions

#### Cancer Center Site

Operation of the project would generate ROG, $NO_x$, CO, sulfur oxides ($SO_x$), $PM_{10}$, and $PM_{2.5}$ emissions from mobile sources, including vehicle trips from passenger vehicles and heavy-duty trucks; area sources, including the use of consumer products and landscape maintenance equipment; energy sources; and stationary sources. The emissions from the emergency generator are included for disclosure purposes but should not be compared to the VCAPCD thresholds as discussed in Section 2.4.1, Thresholds of Significance, as it is a permitted source. As such, the emissions for the emergency generator are not included in the total compared to the threshold. Table 10 presents the annual area and mobile emissions associated with operation (year 2025) of the project. Details of the emission calculations are provided in Appendix A.

## Table 10. Maximum Daily Operational Criteria Air Pollutant Emissions – Cancer Center Site

| Emission Source | ROG | NOx | CO | SOx | PM10 | PM2.5 |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| **Summer** | | | | | | |
| Area | 1.76 | 0.02 | 2.54 | <0.01 | <0.01 | <0.01 |
| Energy | 0.02 | 0.42 | 0.35 | <0.01 | 0.03 | 0.03 |
| Mobile | 9.77 | 8.33 | 74.31 | 0.18 | 16.22 | 4.20 |
| **Total** | **11.55** | **8.77** | **77.20** | **0.18** | **16.25** | **4.23** |
| **Winter** | | | | | | |
| Area | 1.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy | 0.02 | 0.42 | 0.35 | <0.01 | 0.03 | 0.03 |
| Mobile | 9.61 | 9.31 | 73.15 | 0.17 | 16.22 | 4.20 |
| **Total** | **10.96** | **9.73** | **73.50** | **0.17** | **16.25** | **4.23** |
| *VCAPCD Threshold* | *25* | *25* | — | — | — | — |
| **Threshold Exceeded?** | **No** | **No** | — | — | — | — |
| Stationary | 1.00 | 4.48 | 2.55 | <0.01 | 0.01 | 0.01 |

**Notes:** ROG = reactive organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; VCAPCD = Ventura County Air Pollution Control District; — = no threshold for this pollutant; <0.01 = reported value less than 0.01.
See Appendix A for complete results.
Totals may not sum due to rounding.

As shown in Table 10, the combined daily area, energy, and mobile source emissions would not exceed the VCAPCD's operational thresholds for ROG or NOx. As such, impacts would be less than significant for the Cancer Center Site.

#### Janss Road Site

Operation of the project would generate ROG, $NO_x$, CO, sulfur oxides ($SO_x$), $PM_{10}$, and $PM_{2.5}$ emissions from mobile sources, including vehicle trips from passenger vehicles and heavy-duty trucks; area sources, including the use of consumer products and landscape maintenance equipment; energy sources; and stationary sources. The emissions from the emergency generator are included for disclosure purposes but should not be compared to the VCAPCD thresholds as discussed in Section 2.4.1, Thresholds of Significance, as it is a permitted source. As such, the emissions for the emergency generator are not included in the total compared to the threshold. Table 11 presents the annual area and mobile emissions associated with operation (year 2028) of the project. Details of the emission calculations are provided in Appendix A.

### Table 11. Maximum Daily Operational Criteria Air Pollutant Emissions – Janss Road Site

| Emission Source | ROG | NOx | CO | SOx | PM10 | PM2.5 |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| Summer | | | | | | |
| Area | 0.45 | <0.01 | 0.51 | <0.01 | <0.01 | <0.01 |
| Energy | 0.01 | 0.10 | 0.04 | <0.01 | 0.01 | 0.01 |
| Mobile | 0.34 | 0.25 | 2.37 | 0.01 | 0.59 | 0.15 |
| **Total** | **0.80** | **0.35** | **2.92** | **0.01** | **0.60** | **0.16** |
| Winter | | | | | | |
| Area | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy | 0.01 | 0.10 | 0.04 | <0.01 | 0.01 | 0.01 |
| Mobile | 0.34 | 0.28 | 2.35 | 0.01 | 0.59 | 0.15 |
| **Total** | **0.76** | **0.38** | **2.39** | **0.01** | **0.60** | **0.16** |
| *VCAPCD Threshold* | *25* | *25* | — | — | — | — |
| **Threshold Exceeded?** | **No** | **No** | — | — | — | — |

**Notes:** ROG = reactive organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; VCAPCD = Ventura County Air Pollution Control District; — = no threshold for this pollutant; <0.01 = reported value less than 0.01.
See Appendix A for complete results.
Totals may not sum due to rounding.

As shown in Table 11, the combined daily area, energy, and mobile source emissions would not exceed the VCAPCD's operational thresholds for ROG or NOx. As such, impacts would be less than significant for Janss Road.

During operation, emissions from both the Cancer Center Site and Janss Road Site will occur simultaneously. Table 12 shows the combined emissions from the Cancer Center Site and Janss Road Site during operation.

### Table 12. Maximum Daily Operational Criteria Air Pollutant Emissions – Cancer Center Site and Janss Road Site

| Emission Source | ROG | NOx | CO | SOx | PM10 | PM2.5 |
|---|---|---|---|---|---|---|
| | Pounds per day | | | | | |
| Summer | | | | | | |
| Area | 2.21 | 0.02 | 3.05 | <0.01 | <0.01 | <0.01 |
| Energy | 0.03 | 0.52 | 0.39 | <0.01 | 0.04 | 0.04 |
| Mobile | 10.11 | 8.58 | 76.68 | 0.19 | 16.81 | 4.35 |
| **Total** | **12.35** | **9.12** | **80.12** | **0.19** | **16.85** | **4.39** |

### Table 12. Maximum Daily Operational Criteria Air Pollutant Emissions – Cancer Center Site and Janss Road Site

| Emission Source | ROG | NOx | CO | SOx | PM10 | PM2.5 |
|---|---|---|---|---|---|---|
| Winter | | | | | | |
| Area | 1.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy | 0.03 | 0.52 | 0.39 | <0.01 | 0.04 | 0.04 |
| Mobile | 9.95 | 9.59 | 75.5 | 0.18 | 16.81 | 4.35 |
| **Total** | **11.72** | **10.11** | **75.89** | **0.18** | **16.85** | **4.39** |
| *VCAPCD Threshold* | *25* | *25* | — | — | — | — |
| **Threshold Exceeded?** | **No** | **No** | — | — | — | — |
| Stationary | 1.00 | 4.48 | 2.55 | <0.01 | 0.01 | 0.01 |

**Notes:** ROG = reactive organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; VCAPCD = Ventura County Air Pollution Control District; — = no threshold for this pollutant; <0.01 = reported value less than 0.01.
See Appendix A for complete results.

As shown in Table 12, the combined daily area, energy, and mobile source emissions would not exceed the VCAPCD's operational thresholds for ROG or NOx. As such, impacts would be less than significant for the Cancer Center Site and Janss Road Site.

#### Health Effects

Project construction and operation would not exceed VCAPCD thresholds for ROG, $NO_x$, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$. ROGs and $NO_x$ are precursors to $O_3$, for which the SCCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with $O_3$ are generally associated with reduced lung function. The contribution of ROGs and $NO_x$ to regional ambient $O_3$ concentrations is the result of complex photochemistry. The increases in $O_3$ concentrations in the SCCAB due to $O_3$ precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive $O_3$ concentrations would also depend on the time of year that the ROG emissions would occur because exceedances of the $O_3$ CAAQS/NAAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of $O_3$ precursors is speculative due to the lack of quantitative methods to assess this impact. Since construction (with mitigation) and operation of the project would not exceed the VCAPCD threshold for ROGs or $NO_x$, implementation of the project would not contribute to regional $O_3$ concentrations and the associated health effects.

Operation of the project would not contribute to exceedances of the NAAQS and CAAQS for $NO_2$. Health effects that result from $NO_2$ and $NO_x$ include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, project construction would be relatively short term and off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the site at any one time. In addition, existing $NO_2$ concentrations in the area are well below the NAAQS and CAAQS standards. Due to the project not exceeding thresholds of $NO_x$, the project would not result in potential health effects associated with $NO_2$ and $NO_x$.

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots was discussed previously and was determined to be a less-than-significant impact. Furthermore, the existing CO concentrations in the area are well below the NAAQS and CAAQS standards. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant.

Construction and operation of the project would also not contribute to exceedances of the NAAQS and CAAQS for PM or obstruct the SCCAB from coming into attainment for these pollutants. The project would also not result in substantial DPM emissions during construction and operation, and therefore would not result in significant health effects related to DPM exposure. Additionally, the project would implement dust control strategies and be required to comply with VCAPCD Rule 55, which limits the amount of fugitive dust generated during construction. Due to the minimal contribution of PM during construction and operation, the project is not anticipated to result in health effects associated with $PM_{10}$ or $PM_{2.5}$.

In summary, because construction and operation of the project would not result in exceedances of the VCAPCD significance thresholds, the potential health effects associated with criteria air pollutants would be **less than significant.** Notably, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days and there are currently no modeling tools that could provide reliable and meaningful additional information regarding health effects from criteria air pollutants generated by individual projects.

## 2.5.3 Would the Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?

### Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel would add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SCCAB. Locally, project-related traffic would be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and/or operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCCAB is steadily decreasing.

VCAPCD recommends conducting a CO hotspot screening analysis for any project that meets both of the following conditions:

- The project would generate indirect CO emissions that are greater than the applicable $O_3$ project significance thresholds (i.e., 25 pounds per day).
- The project would generate traffic that would significantly impact congestion levels at roadway intersections currently operating at, or that are expected to operate at, level of service E or F.

As shown in Tables 10 through 12, operation of the project would not exceed the VCAPCD threshold of 25 pounds per day for $O_3$ precursors (VOCs or $NO_X$). VCAPCD has not established a daily significance threshold for CO emissions. As such, the project is not anticipated to significantly affect congestion levels at roadway intersections due to the minimal number of vehicle trips generated by the project. As a result, the project does not trigger the need for a CO hotspot analysis and would not cause or contribute to a CO hotspot. Therefore, the project would not expose sensitive receptors to substantial CO concentrations, and impacts would be **less than significant**.

### Health Impacts of Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure or acute (immediate) and/or chronic (cumulative) non-cancer health effects. A toxic substance released into the air is considered a TAC. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, AB 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere.

As discussed in Section 2.4.2.1, a construction HRA was performed to estimate the Maximum Individual Cancer Risk and the Chronic Hazard Index for proximate sensitive receptors as a result of project construction. As the Cancer Center Site and Janss Road Site construction take place at different times, this assessment shows the impacts of just the Cancer Center Site construction. Results of the construction HRA are presented in Table 13.

## Table 13. Construction Health Risk Assessment Results – Cancer Center Site

| Impact Parameter | Receptor Number | UTME (m) | UTMN (m) | Units | Project Impact | CEQA Threshold | Level of Significance |
|---|---|---|---|---|---|---|---|
| Maximum Individual Cancer Risk – Residential | 2 | 327629.54 | 3783037.88 | Per Million | 2.1 | 10 | Less than Significant |
| Chronic Hazard Index – Residential | 2 | 327629.54 | 3783037.88 | Index Value | 0.002 | 1.0 | Less than Significant |

**Source:** VCAPCD 2003.
**Notes:** CEQA = California Environmental Quality Act; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.
See Appendix B.

As shown in Table 13, project construction activities would result in a Residential Maximum Individual Cancer Risk of 2.1 in 1 million, which is less than the significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index of 0.002, which is below the 1.0 significance threshold. The project construction TAC health risk impacts would be less than significant. As the Cancer Center Site and Janss Road

Site construction take place at different times, this assessment shows the impacts of just the Janss Road Site construction. The results of the HRA for Janss Road Site are shown in Table 14.

## Table 14. Construction Health Risk Assessment Results – Janss Road Site

| Impact Parameter | Receptor Number | UTME (m) | UTMN (m) | Units | Project Impact | CEQA Threshold | Level of Significance |
|---|---|---|---|---|---|---|---|
| Maximum Individual Cancer Risk – Residential | 41 | 326276.71 | 3786559.27 | Per Million | 4.6 | 10 | Less than Significant |
| Chronic Hazard Index – Residential | 41 | 326276.71 | 3786559.27 | Index Value | 0.006 | 1.0 | Less than Significant |

**Source**: VCAPCD 2003.
**Note**: CEQA = California Environmental Quality Act; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.
See Appendix B.

As shown in Table 14, Janss Road Site construction activities would result in a Residential Maximum Individual Cancer Risk of 4.6 in 1 million, which is less than the significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index of 0.006, which is below the 1.0 significance threshold. The project construction TAC health risk impacts would be less than significant. The combined HRA for both the Cancer Center Site and Janss Road Site during construction is shown in Table 15.

## Table 15. Construction Health Risk Assessment Results – Cancer Center Site and Janss Road Site

| Impact Parameter | Receptor Number | UTME (m) | UTMN (m) | Units | Project Impact | CEQA Threshold | Level of Significance |
|---|---|---|---|---|---|---|---|
| Maximum Individual Cancer Risk – Residential | 41 | 326276.71 | 3786559.27 | Per Million | 4.6 | 10 | Less than Significant |
| Chronic Hazard Index – Residential | 41 | 326276.71 | 3786559.27 | Index Value | 0.006 | 1.0 | Less than Significant |

**Source**: VCAPCD 2003.
**Note**: CEQA = California Environmental Quality Act; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.
See Appendix B.

The results in Table 15 represent the combined health risk results of both the Cancer Center Site and Janss Road Site and represent the highest impacted receptor. As shown in Table 15, project construction activities would result in a Residential Maximum Individual Cancer Risk of 4.6 in 1 million, which is less than the significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index of 0.006, which is below the 1.0 significance threshold. The project construction TAC health risk impacts would be less than significant.

During operation, the Cancer Center Site would emit TAC emissions during maintenance and testing of the emergency generator. There are no TAC emissions generated by Janss Road Site during operation. An HRA was performed assessing the cancer and noncancer health impacts to proximate sensitive receptors to the Cancer Center Site during operation. Results of the construction HRA are presented in Table 16.

### Table 16. Operational Health Risk Assessment Results

| Impact Parameter | Receptor Number | UTME (m) | UTMN (m) | Units | Project Impact | CEQA Threshold | Level of Significance |
|---|---|---|---|---|---|---|---|
| Maximum Individual Cancer Risk – Residential | 3 | 327602.29 | 3783040.99 | Per Million | 0.2 | 10 | Less than Significant |
| Chronic Hazard Index – Residential | 3 | 327602.29 | 3783040.99 | Index Value | 0.0001 | 1.0 | Less than Significant |

**Source**: VCAPCD 2003.
**Note**: CEQA = California Environmental Quality Act; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.
See Appendix B.

As shown in Table 16, project operation would result in a Residential Maximum Individual Cancer Risk of 0.2 in 1 million, which is less than the significance threshold of 10 in 1 million. Project operation would result in a Residential Chronic Hazard Index of 0.0001, which is below the 1.0 significance threshold. The project operational TAC health risk impacts would be **less than significant.**

#### Valley Fever

As previously discussed, the City has a low incidence rate of valley fever. Furthermore, the project would not impact undisturbed land; it would be built on an existing developed site, which is not a source of valley fever spores. Impacts would be **less than significant.**

## 2.5.4 Would the Project Result in Other Emissions (Such as those Leading to Odors) Adversely Affecting a Substantial Number of People?

The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

### Construction Emissions

During Cancer Center Site and Janss Road Site construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. However, such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be **less than significant.**

### Operational Emissions

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities (VCAPCD 2003). The Cancer Center Site and Janss Road Site would not create new sources of odor during operation. Therefore, project operations would result in an odor impact that is **less than significant.**

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# 3 Greenhouse Gas Emissions

## 3.1 Environmental Setting

### 3.1.1 Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (i.e., decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and are the most significant driver of observed climate change (IPCC 2013; EPA 2017a). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further in Section 3.3.2, Potential Effects of Climate Change.

### 3.1.2 Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code, Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include $CO_2$, methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride ($SF_6$), and nitrogen trifluoride. (See also CEQA Guidelines, Section 15364.5.) Some GHGs, such as $CO_2$, $CH_4$, and $N_2O$, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, $CO_2$ and $CH_4$ are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than $CO_2$, include fluorinated gases, such as HFCs, PFCs, and $SF_6$, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[5]

**Carbon Dioxide.** $CO_2$ is a naturally occurring gas and a byproduct of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of $CO_2$ include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate $CO_2$ include the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

**Methane.** $CH_4$ is produced through both natural and human activities. $CH_4$ is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

**Nitrous Oxide.** $N_2O$ is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create $N_2O$. Sources of $N_2O$ include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers; manure management; industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants); vehicle emissions; and use of $N_2O$ as a propellant (e.g., rockets, racecars, and aerosol sprays).

**Fluorinated Gases.** Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons [CFCs], hydrochlorofluorocarbons [HCFCs], and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to $O_3$-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as byproducts of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the $O_3$-depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** $SF_6$ is a colorless gas soluble in alcohol and ether and slightly soluble in water. $SF_6$ is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** Nitrogen trifluoride is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

5 The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (1995), IPCC Fourth Assessment Report (2007), CARB's Glossary of Air Pollution Terms (2016a), and EPA's Glossary of Climate Change Terms (2016b).

**Chlorofluorocarbons.** CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere) and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric $O_3$.

**Hydrochlorofluorocarbons.** HCFCs are a large group of compounds whose structure is very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

**Black Carbon.** Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify its global warming potential. DPM emissions are a major source of black carbon and are TACs that have been regulated and controlled in California for several decades to protect public health. In relation to declining DPM from CARB's regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 41% between 2000 and 2013 and 57% by 2020, and will reduce by 61% by 2030 (CARB 2015).

**Water Vapor.** The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

**Ozone.** Tropospheric $O_3$, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric $O_3$, which is created by the interaction between solar ultraviolet radiation and molecular oxygen ($O_2$), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric $O_3$, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

**Aerosols.** Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

## 3.1.3 Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2016b). The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is $CO_2$; therefore, GWP-weighted emissions are measured in metric tons (MT) of $CO_2$ equivalent ($CO_2e$).

The current version of CalEEMod (version 2020.4.0) assumes that the GWP for $CH_4$ is 25 (so emissions of 1 MT of $CH_4$ are equivalent to emissions of 25 MT of $CO_2$), and the GWP for $N_2O$ is 298, based on the Intergovernmental Panel on Climate Change Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the project.

# 3.2 Regulatory Setting

## 3.2.1 Federal Regulations

### *West Virginia et al. v. U.S. Environmental Protection Agency*

On June 30, 2022, the Supreme Court issued its opinion in *West Virginia v. U.S. Environmental Protection Agency*, invalidating the 2015 Obama-era Clean Power Plan. The ruling held that Section 111(d) of the Clean Air Act does not authorize EPA to devise emissions caps based on "generation shifting"—the approach EPA took in the Clean Power Plan wherein power plants would be required to transition from higher-emitting (e.g., coal) to lower-emitting (e.g., natural-gas) to then even lower-emitting (e.g., wind and solar) electricity production. The Obama administration promulgated the Clean Power Plan to establish limits on $CO_2$ emissions from power plants, creating a scheme geared toward shifting the generation of electricity from steam-generating units to natural gas-fired units and from fossil-fuel fired units to renewable energy sources. The Supreme Court's ruling will constrain EPA's ability to regulate carbon emissions from the power sector by agency rulemaking; the court's assertion of the major questions doctrine will have a lasting impact on the administrative state.

### *Massachusetts v. U.S. Environmental Protection Agency*

On April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency*, the U.S. Supreme Court ruled that $CO_2$ was a pollutant and directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The elevated concentrations of GHGs—$CO_2$, $CH_4$, $N_2O$, hydrofluorocarbons, perfluorocarbons, and $SF_6$—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The combined emissions of GHGs—$CO_2$, $CH_4$, $N_2O$, and hydrofluorocarbons—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

### Energy Independence and Security Act

On December 19, 2007, President George W. Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following to aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel by 2022.
2. Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

### U.S. Environmental Protection Agency and National Highway Traffic Safety Administration Joint Final Rule for Vehicle standards

In response to the U.S. Supreme Court ruling discussed above, the Bush administration issued Executive Order (EO) 13432 in 2007 directing EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of $CO_2$ in model year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021 (77 FR 62624–63200). On January 12, 2017, EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks (EPA 2017b).

In August 2016, EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower $CO_2$ emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2%–3% of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of one degree Celsius by 2100 (EPA and NHTSA 2018). California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. Thus, the timing and consequences of the 2018 federal proposal are speculative at this time.

In 2019, the EPA and NHTSA published the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE) Part One: One National Program (84 FR 51310), which revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle (ZEV) mandates in California. In March 2020, SAFE Part Two was issued, which set $CO_2$ emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. In March 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and ZEV sales mandate. EPA's action concludes its reconsideration of the 2019 SAFE Part One rule by finding that the actions taken under the previous administration as a part of SAFE Part One were decided in error and are now entirely rescinded.

## 3.2.2 State Regulations

The state has taken a number of actions to address climate change. These include EOs, legislation, and CARB plans and requirements. These are summarized as follows.

### Executive Order S-3-05

EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO established the following targets:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels

### Assembly Bill 32

In furtherance of the goals established in EO S-3-05, the legislature enacted AB 32. The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

### Senate Bill 32 and Assembly Bill 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030.

### The California Air Resources Board's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (California Health and Safety Code, Section 38561[a]) and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The Climate Change Scoping Plan: A Framework for Change (Scoping Plan) included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives (CARB 2008).

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EOs S-3-05 and B-16-2012 (discussed below). The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions (CARB 2014).

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05.

In December 2017, CARB adopted the *2017* Climate Change Scoping Plan Update (2030 Scoping Plan) (CARB 2017b). The 2030 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the EOs and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. A project is considered consistent with the statutes and EOs if it meets the general policies in reducing GHG emissions to facilitate the achievement of the state's goals and does not impede attainment of those goals. As discussed in several cases, a given project need not be in perfect conformity with each and every planning policy or goals to be consistent. A project would be consistent if it would further the objectives and not obstruct their attainment. CARB adopted the 2022 Scoping Plan Update on December 15, 2022, which assesses progress towards achieving the SB 32 2030 target and lays out a path to achieve carbon neutrality by 2050 (CARB 2022).

### Executive Order B-55-18

EO B-55-18 (September 2018) establishes a statewide policy for California to achieve carbon neutrality as soon as possible and no later than 2045, and to achieve and maintain net-negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

### Building Energy

#### Title 24, Part 6

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402[d]) and cost effectiveness (California Public Resources Code, Sections 25402[b][2] and [b][3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

On August 11, 2021, the California Energy Commission (CEC) adopted the 2022 Building Energy Efficiency Standards (Energy Code). In December 2021, the 2022 Energy Code was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code. Under the 2022 amendments, California buildings would consume approximately 198,600 gigawatt-hours of electricity and 6.14 billion therms of fossil fuel natural gas in 2023 compared to approximately 199,500 gigawatt-hours and 6.17 billion therms of electricity and fossil fuel natural gas, respectively, under the 2019 Energy Code (CEC 2021). On a statewide basis throughout 2023, all measures for newly constructed buildings and altered components of existing buildings collectively would save approximately 33 million therms of fossil fuel natural gas and 1.3 billion kilowatt-hours of electricity (CEC 2021).

#### Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The 2019 CALGreen standards are the current applicable standards. For nonresidential projects (which the residential portion of the project is subject to), some of the key mandatory CALGreen 2019 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, electric vehicle (EV) charging stations, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR Part 11).

#### Title 20

Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards.

### Renewable Energy and Energy Procurement

#### Senate Bill 1078, Executive Order 14-08, Senate Bill X1-2, Senate Bill 350, and Senate Bill 100

SB 1078 (September 2002) established the Renewable Portfolio Standard program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. EO S-14-08 (November 2008) required that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020. SB X1-2 expanded the Renewable Portfolio Standard by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. SB 350 (October 2015) further expanded the Renewable Portfolio Standard by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. SB 100 (2018) increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. On April 30, 2022, at 2:45 p.m., California supplied 100% of its statewide demand with renewables (Electrek 2022).

### Mobile Sources

#### State Vehicle Standards (Assembly Bill 1493 and Executive Order B-16-12)

AB 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's $CO_2$ emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It ordered CARB, CEC, California Public Utilities Commission, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare. As explained under the Federal Vehicle Standards description above, EPA and NHTSA approved the SAFE Vehicles Rule Part One and Two, which revoked California's authority to set its own GHG emissions standards and set ZEV mandates in California. As President Biden issued EO 13990 to review Part One and Part Two of the SAFE Vehicles Rule, this analysis continues to utilize the best available information at this time, as set forth in EMFAC and assumed in CalEEMod.

#### Heavy Duty Diesel (Title 13 California Code of Regulations, Division 3, Chapter 1, Section 2025)

CARB adopted the final Heavy-Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce particulate matter and $NO_x$ emissions from heavy-duty diesel vehicles. The rule requires particulate matter filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule required nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (13 CCR 2485).

### Executive Order S-1-07

EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining low carbon fuel standard for GHG emissions measured in $CO_2e$ grams per unit of fuel energy sold in California. The initial target of the low carbon fuel standard was to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020 (17 CCR 95480 et seq.). In September 2018, CARB approved amendments for the low carbon fuel standard that require a 20% reduction in carbon intensity by year 2030.

### Senate Bill 375

SB 375 (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations to prepare an SCS as part of their RTP that will achieve the GHG reduction targets set by CARB.

### Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars (ACC) I program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package of regulations: the low-emission vehicle regulation for criteria air pollutant and GHG emissions and a technology forcing regulation for ZEVs that contributes to both types of emission reductions (CARB 2021a). The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold in 2015 (CARB 2021a). The ZEV program will act as the focused technology of the ACC I program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years.

The ACC II program is currently in development to establish the next set of low-emission vehicle and ZEV requirements for model years after 2025 to contribute to meeting $O_3$ NAAQS and California's carbon neutrality standards (CARB 2021a). The main objectives of ACC II are as follows:

1. Maximize criteria and GHG emission reductions through increased stringency and real-world reductions.
2. Accelerate the transition to ZEVs through both increased stringency of requirements and associated actions to support wide-scale adoption and use.

An ACC II rulemaking package, which will consider technological feasibility, environmental impacts, equity, economic impacts, and consumer impacts, is anticipated to be presented to CARB for consideration in August 2022.

### Assembly Bill 1236

AB 1236 (October 2015) required a city, county, or city and county to approve an application for the installation of EV charging stations, as defined, through the issuance of specified permits, unless the city or county makes specified written findings based upon substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provided for appeal of that decision to the planning commission, as specified. The bill provided that the implementation of consistent statewide standards to achieve the timely and cost-effective installation of EV charging stations is a matter of statewide concern. The bill required EV charging stations to meet specified standards.

### Executive Order N-79-20

EO N-79-20 (September 2020) requires CARB to develop regulations as follows: (1) passenger vehicle and truck regulations requiring increasing volumes of new ZEVs sold in the state towards the target of 100% of in-state sales by 2035; (2) medium- and heavy-duty vehicle regulations requiring increasing volumes of new zero-emission trucks and buses sold and operated in the state towards the target of 100% of the fleet transitioning to ZEVs by 2045 everywhere feasible and for all drayage trucks to be zero emission by 2035; and (3) strategies, in coordination with other state agencies, EPA, and local air districts, to achieve 100% zero-emissions from off-road vehicles and equipment operations in the state by 2035. EO N-79-20 called for the development of a Zero-Emissions Vehicle Market Development Strategy, which was released February 2021, that ensures coordination and implementation of the EO and outlines actions to support new and used ZEV markets. This strategy is to be updated every 3 years. In addition, the EO specifies identification of near-term actions and investment strategies to improve clean transportation, sustainable freight, and transit options and calls for development of strategies, recommendations, and actions by July 15, 2021, to manage and expedite the responsible closure and remediation of former oil extraction sites as the state transitions to a carbon-neutral economy.

### Advanced Clean Trucks Regulation

The purpose of the Advanced Clean Trucks Regulation (June 2020) is to accelerate the market for ZEVs in the medium- and heavy-duty truck sector and to reduce emissions of $NO_X$, $PM_{2.5}$, TACs, GHGs, and other criteria pollutants generated from on-road mobile sources (CARB 2021b). Requiring medium- and heavy-duty vehicles to transition to zero-emissions technology will help California meet established near- and long-term air quality and climate mitigation targets.

## Water

### Executive Order B-29-15

In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state.

### Executive Order B-37-16

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

#### Executive Order N-10-21

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

#### Executive Order N-7-22

On March 28, 2022, Governor Newsom directed the SWRCB to consider adopting emergency regulations focused on urban water suppliers under EO N-7-22. If adopted, the potential regulations would require the vast majority of urban water suppliers to enact Level 2 of their water shortage contingency plans. Those plans are developed by the suppliers and provide actions they will take if their water supplies are cut to certain levels. Here, Level 2 would represent the suppliers acting as if their water supply had been reduced by 20%. The executive order also directs the SWRCB to consider adopting emergency regulations defining “non-functional turf” by May 25, 2022. Both the executive order and corresponding press release confirm that the definition should only apply to ornamental turf that is not functional, excluding turf such as school fields, sports fields, and parks from the definition. If the definition is adopted, the SWRCB must then consider banning irrigation of the non-functional turf in the commercial, industrial and institutional sectors (with limited exceptions). The proposed ban is anticipated to save several hundred thousand acre-feet of water per year.

### Solid Waste

#### Assembly Bill 939, Assembly Bill 341, Assembly Bill 1826, and Senate Bill 1383

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000. AB 341 (Chapter 476, Statutes of 2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. SB 1383 (Chapter 395, Statutes of 2016) establishes targets to achieve a 50% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75% reduction by 2025. The California Department of Resources Recycling and Recovery was granted the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20% of currently disposed edible food is recovered for human consumption by 2025 (CalRecycle 2020).

## 3.2.3 Local Regulations

### 3.2.3.1 Ventura County Air Pollution Control District

The CEQA Guidelines require that lead agencies determine whether a project's GHG emissions significantly affect the environment and impose mitigation to eliminate or lessen such significant effects. Based on these requirements, in September 2011, the VCAPCD Board requested district staff provide possible GHG significance thresholds that can be used in evaluating GHG impacts for land use projects. The VCAPCD submitted a report entitled Greenhouse Gas Thresholds of Significance Options for Land Use Development Projects in Ventura County (VCAPCD 2011). This provides a list of potential thresholds that can be used by lead agencies in determining significance, but does not specify or recommend any single threshold option. In addition to the threshold guidance, the VCAPCD provides a list of resources related to GHG significance, reduction strategies, and mitigation measures that can be used to reduce impacts from land use development projects.

### 3.2.3.2 Southern California Association of Governments

California's 18 metropolitan planning organizations have been tasked with creating SCSs in an effort to reduce the region's vehicle miles traveled in order to help meet AB 32 targets through integrated transportation, land use, housing, and environmental planning. Pursuant to SB 375, CARB set per-capita GHG emissions reduction targets from passenger vehicles for each of the state's 18 metropolitan planning organizations. For SCAG, the state's initial mandated reductions were set at 8% by 2020 and 13% by 2035. In March 2018, CARB updated the SB 375 targets for SCAG to require an 8% reduction by 2020 and a 19% reduction by 2035 in per-capita passenger vehicle GHG emissions (CARB 2018).

Pursuant to Government Code Section 65080(b)(2)(B), the SCS must "set forth forecasted development pattern for the region which when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG reduction targets." To that end, SCAG has developed Connect SoCal, the 2020–2045 RTP/SCS, which complies with CARB's updated emissions reduction targets and meets the requirements of SB 375 by achieving per-capita GHG emissions reductions relative to 2005 of 8% by 2020 and 19% by 2035 (SCAG 2020). In addition, the plan anticipates a 25.7% decrease in time spent in traffic delay per capita and a 5% decrease in daily miles driven per capita from 2016 to 2045. The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, and charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The following are the 2020–2045 RTP/SCS goals (SCAG 2020):

1. Encourage regional economic prosperity and global competitiveness
2. Improve mobility, accessibility, reliability, and travel safety for people and goods
3. Enhance the preservation, security, and resilience of the regional transportation system

4. Increase person and goods movement and travel choices within the transportation system
5. Reduce GHG emissions and improve air quality
6. Support healthy and equitable communities
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options
10. Promote conservation of natural and agricultural lands and restoration of habitats

On September 3, 2020, the Regional Council approved the 2020–2045 RTP/SCS in its entirety (SCAG 2020).

### 3.2.3.3 City of Thousand Oaks

#### Thousand Oaks General Plan

The City's General Plan consists of a number of goals and policies related to the community's development and various elements that provide more detailed policies to serve as the foundation for guiding the City's development. Chapter 7 of the City's Conservation Element addresses the impacts of global climate change in relation to the City of Thousand Oaks. In 2012, the City adopted an Energy Action Plan for City facilities; however, this plan is not relevant to this project as the project would be a private development. The most relevant policy in the Thousand Oaks General Plan is Policy CO-39, under Climate Change, which would support efforts to reduce GHG emissions, consistent with the intent of the State of California's California Global Warming Solutions Act of 2006, also known as AB 32 (City of Thousand Oaks 2013).

#### Climate and Environmental Action Plan

The Climate and Environmental Action Plan is a long-range plan that outlines comprehensive strategies to reduce GHG emissions and address other environmentally related issues. The City Council has adopted GHG reduction targets of 40% below 2010 levels by 2030 and 80% below 2010 levels by 2050. Implementation of the Climate and Environmental Action Plan GHG emission reduction strategies will provide co-benefits to the community by reducing air pollution, supporting local economic development, increasing local resilience, and improving public health and quality of life. The Climate and Environmental Action Plan is still under development and therefore will not be used for the consistency analysis in Section 3.5, Impact Analysis (City of Thousand Oaks 2022).

## 3.3 Greenhouse Gas Inventories and Climate Change Conditions

### 3.3.1 Sources of Greenhouse Gas Emissions

Anthropogenic GHG emissions worldwide in 2020 (the most recent year for which data is available) totaled approximately 49,800 million metric tons (MMT) of $CO_2e$, excluding land use change and forestry (PBL 2022). The top six GHG emitters include China, the United States, the Russian Federation, India, Japan, and the European

Union, which accounted for approximately 60% of the total global emissions, or approximately 30,270 MMT $CO_2e$ (PBL 2022). Table 17 presents the top GHG-emissions-producing countries.

## Table 17. Six Top GHG Producer Countries

| Emitting Countries | 2020 GHG Emissions (MMT $CO_2e$)[a,b] |
|---|---|
| China | 14,300 |
| United States | 5,640 |
| European Union | 3,440 |
| India | 3,520 |
| Russian Federation | 2,210 |
| Japan | 1,160 |
| **Total** | **30,270** |

**Source:** PBL 2022.
**Notes:** GHG = greenhouse gas; MMT $CO_2e$ = million metric tons of carbon dioxide equivalent.
[a] Column may not add due to rounding.
[b] GHG emissions do not include land use change and forestry-related GHG emissions.

Per the EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 to 2020 (EPA 2022), total U.S. GHG emissions were approximately 5,981.4 MMT $CO_2e$ in 2020 (EPA 2022c). The primary GHG emitted by human activities in the United States was $CO_2$, which represented approximately 78.8% of total GHG emissions (4,715.7 MMT $CO_2e$). The largest source of $CO_2$, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 92.1% of $CO_2$ emissions in 2020 (4,343 MMT $CO_2$). Relative to 1990, gross U.S. GHG emissions in 2020 were 7.3% lower, down from the high of 15.7% above 1990 levels in 2007. GHG emissions decreased from 2019 to 2020 by 9.0% (590.4 MMT $CO_2e$) and overall, net emissions (including sinks) decreased 10.6% from 2019 to 2020 and 21.4% from 2005 levels (EPA 2022).

According to California's 2000–2020 GHG emissions inventory (2022 edition), California emitted approximately 369.2 MMT $CO_2e$ in 2020, including emissions resulting from out-of-state electrical generation (CARB 2022). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high-GWP substances, and recycling and waste. Table 14 presents California GHG emission source categories and their relative contributions to the emissions inventory in 2020.

Between 2000 and 2019, per-capita GHG emissions in California have dropped from a peak of 14.0 MT per person in 2001 to 10.5 MT per person in 2019, representing an approximate 25% decrease. In addition, total GHG emissions in 2019 were approximately 7 MMT $CO_2e$ lower than 2018 emissions (CARB 2022).

## Table 18. GHG Emissions Sources in California

| Source Category | Annual GHG Emissions (MMT $CO_2e$) | Percent of Total[a] |
|---|---|---|
| Transportation | 136.60 | 37% |
| Industrial uses | 73.84 | 20% |
| Electricity generation[b] | 59.07 | 16% |
| Residential and commercial uses | 36.92 | 10% |

### Table 18. GHG Emissions Sources in California

| Source Category | Annual GHG Emissions (MMT $CO_2e$) | Percent of Total[a] |
|---|---|---|
| Agriculture and Forestry | 33.22 | 9% |
| High GWP substances | 22.15 | 6% |
| Recycling and waste | 7.38 | 2% |
| **Total** | **369.2** | **100%** |

**Source:** CARB 2022.
**Notes:** GHG = greenhouse gas; MMT $CO_2e$ = million metric tons of carbon dioxide equivalent; GWP = global warming potential.
[a] Column may not add due to rounding.
[b] Includes emissions associated with imported electricity, which account for 18.46 MT $CO_2e$.

## 3.3.2 Potential Effects of Climate Change

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed mean surface temperature for the decade 2006–2015 was 0.87°C (likely between 0.75°C and 0.99°C) higher than the average over the 1850–1900 period (IPCC 2018). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities are estimated to have caused approximately 1.0°C (1.8°F) of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C (1.4°F to 2.2°F) (IPCC 2018). Global warming is likely to reach 1.5°C (2.7°F) between 2030 and 2052 if it continues to increase at the current rate (IPCC 2018).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernible evidence that climate change is occurring in California and is having significant, measurable impacts in the state. Changes in the state's climate have been observed, including an increase in annual average air temperature with record warmth from 2012 to 2016, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of statewide precipitation (OEHHA 2018).

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate on physical systems have been observed, such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2018).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed, including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health, as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California, as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency has released four California Climate Change Assessments (2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments' need for information to support action in their communities, the Fourth Assessment (CNRA 2018) includes reports for nine regions of the state, including the San Joaquin Region, where the project is located. Key projected climate changes for the Los Angeles Region include the following (CNRA 2018):

- Continued future warming over the Los Angeles region. Across the region, average maximum temperatures are projected to increase around 4°F to 5°F by the mid-century, and 5°F to 8°F by the late-century.
- Extreme temperatures are also expected to increase. The hottest day of the year may be up to 10°F warmer for many locations across the Los Angeles region by the late-century under certain model scenarios. The number of extremely hot days is also expected to increase across the region.
- Despite small changes in average precipitation, dry and wet extremes are both expected to increase. By the late 21st century, the wettest day of the year is expected to increase across most of the Los Angeles region, with some locations experiencing 25% to 30% increases under certain model scenarios. Increased frequency and severity of atmospheric river events are also projected to occur for this region.
- Sea levels are projected to continue to rise in the future, but there is a large range based on emissions scenario and uncertainty in feedbacks in the climate system. Roughly 1 feet to 2 feet of sea level rise is projected by the mid-century, and the most extreme projections lead to 8 feet to 10 feet of sea level rise by the end of the century.
- Projections indicate that wildfire may increase over Southern California, but there remains uncertainty in quantifying future changes of burned area over the Los Angeles region.

**Agriculture.** Some of the specific challenges faced by the agricultural sector and farmers include more drastic and unpredictable precipitation and weather patterns; extreme weather events that range from severe flooding to extreme drought, to destructive storm events; significant shifts in water availably and water quality; changes in pollinator lifecycles; temperature fluctuations, including extreme heat stress and decreased chill hours; increased risks from invasive species and weeds, agricultural pests, and plant diseases; and disruptions to the transportation and energy infrastructure supporting agricultural production.

**Biodiversity and Habitat.** Specific climate change challenges to biodiversity and habitat include species migration in response to climatic changes, range shift and novel combinations of species; pathogens, parasites, and disease; invasive species; extinction risks; changes in the timing of seasonal life-cycle events; food web disruptions; threshold effects (i.e., a change in the ecosystem that results in a "tipping point" beyond which irreversible damage or loss has occurred).

**Energy.** Specific climate change challenges for the energy sector include temperature, fluctuating precipitation patterns, increasing extreme weather events, and sea-level rise.

**Forestry.** The most significant climate change related risk to forests is accelerated risk of wildfire and more frequent and severe droughts. Droughts have resulted in more large-scale mortalities and combined with increasing temperatures have led to an overall increase in wildfire risks. Increased wildfire intensity subsequently increases public safety risks, property damage, fire suppression and emergency response costs, watershed and water quality impacts, and vegetation conversions.

**Ocean and Coastal Ecosystems and Resources.** Sea-level rise, changing ocean conditions, and other climate change stressors are likely to exacerbate long-standing challenges related to ocean and coastal ecosystems in addition to threatening people and infrastructure located along the California coastline and in coastal communities. Sea-level rise, in addition to more frequent and severe coastal storms and erosion, are threatening vital infrastructure such as roads, bridges, power plants, ports and airports, gasoline pipes, and emergency facilities, as well as negatively impacting the coastal recreational assets such as beaches and tidal wetlands.

**Public Health.** Climate change can impact public health through various environmental changes and is the largest threat to human health in the twenty-first century. Changes in precipitation patterns affect public health primarily through potential for altered water supplies and extreme events such as heat, floods, droughts, and wildfires. Increased frequency, intensity, and duration of extreme heat and heat waves are likely to increase the risk of mortality due to heat-related illness, as well as exacerbate existing chronic health conditions. Other extreme weather events are likely to negatively impact air quality and increase or intensify respiratory illness, such as asthma and allergies.

**Transportation.** Although the transportation industry is a source of GHG emissions, it is also vulnerable to climate change risks. Increasing temperatures and extended periods of extreme heat threaten the integrity of the roadways and rail lines. High temperatures cause the road surfaces to expand, which leads to increased pressure and pavement buckling. High temperatures can also cause rail breakages, which could lead to train derailment. Other forms of extreme weather events, such as extreme storm events, can negatively impact infrastructure, which can impair movement of peoples and goods or potentially block evacuation routes and emergency access roads. Increased wildfires, flooding, erosion risks, landslides, mudslides, and rockslides can all profoundly impact the transportation system and pose a serious risk to public safety.

**Water.** Climate change could seriously impact the timing, form, and amount of precipitation; runoff patterns; and frequency and severity of precipitation events. Higher temperatures reduce the amount of snowpack and lead to earlier snowmelt, which can impact water supply availability, natural ecosystems, and winter recreation. Water supply availability during the intense dry summer months is heavily dependent on the snowpack accumulated during the wintertime. Increased risk of flooding has a variety of public health concerns, including water quality, public safety, property damage, displacement, and post-disaster mental health problems. Prolonged and intensified droughts can also negatively groundwater reserves and result in increased overdraft and subsidence. The higher risk of wildfires can lead to increased erosion, which can negatively impact watersheds and result in poor water quality.

# 3.4 Significance Criteria and Methodology

## 3.4.1 Thresholds of Significance

The significance criteria used to evaluate the project's GHG emissions impacts is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this GHG emissions analysis, the project would have a significant environmental impact if it would (14 CCR 15000 et seq.):

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the proposed project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA.

The State CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the State CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009a). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled "Discussion Draft CEQA and Climate Change Advisory," states that

> "Neither the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for perming an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. (OPR 2018)Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

### OPR Guidance

The OPR's Technical Advisory titled *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review* states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008).

### VCAPCD

The VCAPCD has not adopted a significance threshold for use for projects within its jurisdiction.

### City of Thousand Oaks Climate Action Plan

The City is currently developing its first Climate Action Plan (CAP) to reduce GHG emissions within the City. The CAP is not finalized and has not been adopted by the City Council and thus is not able to be relied upon to determine significance under CEQA Guidelines Section 15183.5.

### Cumulative Nature of Climate Change

Global climate change has a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project in the South Central Coast Air Basin, such as the project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change.

While the project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally believed that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory as scientific uncertainty regarding the significance a project's individual and cumulative effects on global climate change remains.

Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the CNRA, which noted in its Public Notice for the proposed CEQA amendments (pursuant to SB97) that the evidence before it indicates that in most cases, the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009a). Similarly, the Final Statement of Reasons for Regulatory Action on the CEQA Amendments confirm that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b). Accordingly, further discussion of the project's GHG emissions and their impact on global climate are addressed below.

In the absence of any adopted numeric threshold, the significance of a project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For this project, as a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is SCAG's 2020-2045 RTP/SCS (Connect SoCal), which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the state's long-term climate goals. This analysis also considers consistency with regulations or requirements adopted by the 2008 Climate Change Scoping Plan and subsequent updates.

## 3.4.2 Approach and Methodology

### 3.4.2.1 Construction

**Cancer Center Site**

CalEEMod Version 2022 was used to estimate potential generated GHG emissions during construction of the Cancer Center Site. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 2.4.2.1 are also applicable for the estimation of construction-related GHG emissions. As such, see Section 2.4.2.1 for a discussion of construction emissions calculation methodology and assumptions.

***Electricity***

Temporary electric power for lighting and electronic equipment, such as computers, may be needed inside temporary construction trailers. The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the Cancer Center Site. The *2022 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction land area per month of $2.41, which was used to calculate the Project's total construction power cost (Pray 2022).

Based on information provided in Section 2.4.2.1, construction activities are anticipated to occur over 18 months. As detailed in Table 19, Construction Power Cost, the total electrical cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $2,533.91 in 2022 dollars.

**Table 19. Construction Power Cost – Cancer Center Site**

| Land Use | Power Cost (per 1,000 square feet of construction per month) | Size (1,000 square feet) | Construction Duration (months) | Project Construction Power Cost |
|---|---|---|---|---|
| Medical office building | $2.41 | 58.412 | 18 | $2,533.91 |

**Source**: Pray 2022.

SCE's general service rate schedule were used to determine the Project's electrical usage. As of January 1, 2022, SCE's general service rate is $0.13 per kilowatt hours (kWh) of electricity for industrial services (SCE n.d.). By dividing the cost in Table 19 by the SCE rate, the total electricity usage from on-site Project construction related activities is estimated to be approximately 19,492 kWh.

### Table 20. Construction Electricity Usage – Cancer Center Site

| Project Component and Land Use | Cost per kWh | Project Construction Power Cost | Project Construction Electricity Usage (kWh) |
|---|---|---|---|
| Medical office building | $0.13 | $2,533.91 | 19,492 |

**Source:** SCE n.d.
**Note:** kWh: kilowatt-hour.

#### Vegetation

The Vegetation module calculates GHG emissions (or removals) from land use change and changes in sequestration from tree planting (or removal). The CalEEMod estimates changes in $CO_2$ associated with soil and aboveground and belowground biomass resulting from a project-induced change in land use type. As described in the Arborist Report for the project, 15 oak trees would be removed (Evergreen Arborist Consultants Inc. 2022). The i-Tree Planting tool was used to estimate the carbon released from the trees removed from the project and this information was incorporated into CalEEMod.

**Janss Road Site**

CalEEMod Version 2022 was used to estimate potential generated GHG emissions during construction of the Janss Road Site. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 2.4.2.1 are also applicable for the estimation of construction-related GHG emissions. As such, see Section 2.4.2.1 for a discussion of construction emissions calculation methodology and assumptions.

***Electricity***

Temporary electric power for lighting and electronic equipment, such as computers, may be needed inside temporary construction trailers. The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the Janss Road Site. The *2022 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction land area per month of $2.41, which was used to calculate the Project's total construction power cost (Pray 2022).

Based on information provided in Section 2.4.2.1, construction activities are anticipated to occur over 13 months. As detailed in Table 21, Construction Power Cost, the total electrical cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $549.84 in 2022 dollars.

### Table 21. Construction Power Cost – Janss Road Site

| Land Use | Power Cost (per 1,000 square feet of construction per month) | Size (1,000 square feet) | Construction Duration (months) | Project Construction Power Cost |
|---|---|---|---|---|
| Single Family Residential | $2.41 | 17.55 | 13 | $549.84 |

**Source**: Pray 2022.

SCE's general service rate schedule were used to determine the Project's electrical usage. As of January 1, 2022, SCE's general service rate is $0.13 per kilowatt hours (kWh) of electricity for industrial services (SCE n.d.). By dividing the cost in Table 21 by the SCE rate, the total electricity usage from on-site Project construction related activities is estimated to be approximately 4,230 kWh.

### Table 22. Construction Electricity Usage – Janss Road Site

| Project Component and Land Use | Cost per kWh | Project Construction Power Cost | Project Construction Electricity Usage (kWh) |
|---|---|---|---|
| Single Family Residential | $0.13 | $549.84 | 4,230 |

**Source:** SCE n.d.
**Note:** kWh: kilowatt-hour.

## 3.4.2.2 Operation

**Cancer Center Site**

Emissions from the operational phase of the Cancer Center Site were estimated using CalEEMod Version 2022. Operational year 2025 was assumed consistent with completion of project construction. CalEEMod was used to estimate potential operational GHG emissions from area sources (landscape maintenance), energy sources (electricity), mobile, solid waste, water supply and wastewater treatment. Emissions from each category are discussed in the following text with respect to the project. For additional details, see Section 2.4.2.2, Operational Emissions, for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (electricity), and mobile sources.

### Refrigerants

Refrigerants are substances used in equipment for air conditioning and refrigeration. Most of the refrigerants used today are HFCs or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains) and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate. CalEEMod default assumptions were used for the medical office building.

### Solid Waste

The project would generate solid waste, and therefore, result in $CO_2e$ emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste.

### Vegetation

The Vegetation module calculates GHG emissions (or removals) from land use change and changes in sequestration from tree planting (or removal). The CalEEMod estimates changes in $CO_2$ associated with soil and aboveground and belowground biomass resulting from a project-induced change in land use type. As described in the Arborist Report for the project, 15 oak trees would be removed (Evergreen Arborist Consultants Inc. 2022). The mitigation prescribed is a 3:1 replacement. As such, the project would plant 45 oak trees. An additional 15 trees would be planted in accordance with the landscaping plan, for a total of 60 trees. The i-Tree Planting tool was used to estimate the carbon sequestered from the trees planted from the project and this information was incorporated into CalEEMod.

### Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod default values.

#### Janss Road Site

Emissions from the operational phase of the Janss Road Site were estimated using CalEEMod Version 2022. Operational year 2028 was assumed consistent with completion of project construction. CalEEMod was used to estimate potential project-generated operational GHG emissions from area sources (landscape maintenance), energy sources (electricity), mobile, solid waste, water supply and wastewater treatment. Emissions from each category are discussed in the following text with respect to the project. For additional details, see Section 2.4.2.2, Operational Emissions, for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (electricity), and mobile sources.

#### Refrigerants

Refrigerants are substances used in equipment for air conditioning and refrigeration. Most of the refrigerants used today are HFCs or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains) and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate. CalEEMod default assumptions were used for the medical office building.

#### Solid Waste

The project would generate solid waste, and therefore, result in $CO_2e$ emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste.

#### Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod default values.

## 3.5 Impact Analysis

### 3.5.1 Would the Project Generate Greenhouse Gas Emissions, Either Directly or Indirectly, that May Have a Significant Impact on the Environment?

### 3.5.2 Would the Project Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases?

**Cancer Center Site**

#### Project Consistency with Applicable GHG-Related Laws and Regulations

The project's consistency with statewide GHG reduction strategies is summarized in detail in Table 23.

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| **Building Components/Facility Operations** | | |
| Roofs/Ceilings/ Insulation | CALGreen (Title 24, Part 11)<br>California Energy Code (Title 24, Part 6) | The project must comply with efficiency standards regarding roofing, ceilings, and insulation. For example:<br>Roofs/Ceilings: New construction must reduce roof heat island effects per CALGreen Section 106.11.2, which requires use of roofing materials having a minimum aged solar reflectance, thermal emittance complying with Section A5.106.11.2.2 and A5.106.11.2.3 or a minimum aged Solar Reflectance Index as specified in Tables A5.106.11.2.2, or A5.106.11.2.3. Roofing materials must also meet solar reflectance and thermal emittance standards contained in Title 20 Standards.<br>Roof/Ceiling Insulation: There are also requirements for the installation of roofing and ceiling insulation. (See Title 24, Part 6, Section 1110.8) |
| Flooring | CALGreen | The project must comply with efficiency standards regarding flooring materials. For example, 80% of floor area must receive "resilient flooring" and the flooring must meet applicable installation and material requirements contained in CALGreen Section 5.504.4.6. |
| Window and Doors (Fenestration) | California Energy Code | The project must comply with fenestration efficiency requirements. For example, the choice of windows, glazed doors, and any skylights for the project must conform to energy consumption requirements affecting size, orientation, and types of fenestration products used. (See Title 24, Part 6, Section 3.3.) |
| Building Walls/ Insulation | CALGreen<br>California Energy Code | The project must comply with efficiency requirements for building walls and insulation.<br>Exterior Walls: Must meet requirements in current edition of California Energy Code and comply with Sections A5.106.7.1 or A5.106.7.2 of CALGreen for wall surfaces, as well as Section 5.407.1, which requires weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2. Construction must also meet requirements contained in Title 24, Part 6, which vary by material of the exterior walls. (See Title 24, Part 6, Section 3.2.3.)<br>Demising (Interior) Walls: Mandatory insulation requirements for demising walls (which separate conditioned from non-conditioned space) differ by the type of wall material used (Title 24, Part 6, Section 3.2.4).<br>Door Insulation: There are mandatory requirements for air infiltration rates to improve insulation efficiency; they differ according to the type of door (Title 24, Part 6, Section 3.2.5).<br>Flooring Insulation: There are mandatory requirements for insulation that depend on the material and location of the flooring (Title 24, Part 6, Section 3.2.6). |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| Finish Materials | CALGreen | The project must comply with pollutant control requirements for finish materials. For example, materials including adhesives, sealants, caulks, paints and coatings, carpet systems, and composite wood products must meet requirements in CALGreen to ensure pollutant control (CALGreen Section 5.504.4). |
| Wet Appliances (Toilets/Faucets/Urinal, Dishwasher/Clothes Washer, Spa and Pool/ Water Heater) | CALGreen<br>California Energy Code<br>Appliance Efficiency Regulations (Title 20 Standards) | Wet appliances associated with the project must meet various efficiency requirements. For example:<br>Toilets/Faucets/Urinals: Use associated with the project is subject to new maximum rates for toilets, urinals, and faucets effective January 1, 2016 (Title 20 Standards, Sections 1605.1[h], [i] 1065.3[h], [i]):<br>▪ Showerheads maximum flow rate 2.5 gpm at 80 psi<br>▪ Wash fountains 2.2 × (rim space in inches/20) gpm at 60 psi<br>▪ Metering faucets 0.25 gallons/cycle<br>▪ Lavatory faucets and aerators 1.2 gpm at 60 psi<br>▪ Kitchen faucets and aerators 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi<br>▪ Public lavatory faucets 0.5 gpm at 60 psi<br>▪ Trough-type urinals 16 inches length<br>▪ Wall mounted urinals 0.125 gallons per flush<br>▪ Other urinals 0.5 gallons per flush<br>Water Heaters: Use associated with the project is subject to appliance efficiency requirements for water heaters. (Title 20 Standards, Sections 1605.1[f], 1605.3[f].)<br>Dishwasher/Clothes Washer: Use associated with the project is subject to appliance efficiency requirements for dishwashers and clothes washers. (Title 20 Standards, Sections 1605.1[o], [p], [q], 1605.3[o], [p], [q].) |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| Dry Appliances (Refrigerator/Freezer, Heater/Air Conditioner, Clothes Dryer) | Title 20 Standards<br>CALGreen | Dry appliances associated with the project must meet various efficiency requirements. For example:<br>Refrigerator/Freezer: Use associated with the project is subject to appliance efficiency requirements for refrigerators and freezers. (Title 20 Standards, Sections 1605.1[a], 1605.3[a].)<br>Heater/Air Conditioner: Use associated with the project is subject to appliance efficiency requirements for heaters and air conditioners. (Title 20 Standards, Sections 1605.1[b], [c], [d], [e], 1605.3[b], [c], [d], [e] as applicable.)<br>Clothes Dryer: Use associated with the project is subject to appliance efficiency requirements for clothes dryers. (Title 20 Standards, Section 1605.1[q].) |
| | CALGreen | Installations of HVAC, refrigeration, and fire suppression equipment must comply with CALGreen Sections 5.508.1.1 and 508.1.2, which prohibits CFCs, halons, and certain HCFCs and HFCs. |
| Lighting | Title 20 Standards | Lighting associated with the project will be subject to energy efficiency requirements contained in Title 20 Standards.<br>General Lighting: Indoor and outdoor lighting associated with the project must comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1[j], [k], [n], 1605.3[j], [k], [n]).<br>Emergency lighting and self-contained lighting: the project must also comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1[l], 1605.3[l]).<br>Traffic Signal Lighting: For any necessary project improvements involving traffic lighting, traffic signal modules and traffic signal lamps will need to comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1[m], 1605.3[m]). |
| | California Energy Code | Lighting associated with the project will also be subject to energy efficiency requirements contained in Title 24, Part 6, which contains energy standards for non-residential indoor lighting and outdoor lighting. (See Title 24 Part 6, Sections 5 and 6.)<br>Mandatory lighting controls for indoor lighting include, for example, regulations for automatic shut-off, automatic daytime controls, demand responsive controls, and certificates of installation. (See Title 24 Part 6, Section 5.) Regulations for outdoor lighting include, for example, creation of lighting zones, lighting power requirements, a hardscape lighting power allowance, requirements for outdoor incandescent and luminaire lighting, and lighting control functionality. (See Title 24 Part 6, Section 6.) |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | AB 1109 | Lighting associated with the project will be subject to energy efficiency requirements adopted pursuant to AB 1109.<br>Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 25% for indoor commercial lighting. |
| Bicycle and Vehicle Parking | CALGreen | The project will be required to provide compliant bicycle parking, fuel-efficient vehicle parking, and electric vehicle charging spaces (CALGreen Sections 5.106.4, 5.106.5.1, 5.106.5.3). |
| | California Energy Code | The project is also subject to parking requirements contained in Title 24, Part 6. For example, parking capacity is to meet but not exceed minimum local zoning requirements and the project should employ approved strategies to reduce parking capacity (Title 24, Part 6, Section 106.6). |
| Landscaping | CALGreen | CALGreen requires and has further voluntary provisions for:<br>▪ A water budget for landscape irrigation use<br>▪ For new water service, separate meters or submeters must be installed for indoor and outdoor potable water use for landscaped areas of 1,000–5,000 square feet<br>▪ Provide water-efficient landscape design that reduces use of potable water beyond initial requirements for plant installation and establishment |
| | Model Water Efficient Landscaping Ordinance | The model ordinance promotes efficient landscaping in new developments and establishes an outdoor water budget for new and renovated landscaped areas that are 500 square feet or larger. (23 CCR, Division 2, Chapter 2.7.) |
| | Cap-and-Trade Program | Transportation fuels used in landscape maintenance equipment (e.g., gasoline) would be subject to the Cap-and-Trade Program. (See “Energy Use,” below.) |
| Refrigerants | CARB Management of High GWP Refrigerants for Stationary Sources | Any refrigerants associated with the project will be subject to CARB standards. CARB’s Regulation for the Management of High GWP Refrigerants for Stationary Sources (1) reduces emissions of high-GWP refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduces emissions resulting from the installation and servicing of stationary refrigeration and air conditioning appliances using high-GWP refrigerants; and (3) requires verification of GHG emission reductions. (17 CCR 95380 et seq.) |
| Consumer Products | CARB High GWP GHGs in Consumer Products | All consumer products associated with the project will be subject to CARB standards. CARB’s consumer products regulations set VOC limits for numerous categories of consumer products and limit the reactivity of the ingredients used in numerous categories of aerosol coating products (17 CCR, Division 3, Chapter 1, Subchapter 8.5). |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| **Construction** | | |
| Use of Off-Road Diesel Engines, Vehicles, and Equipment | CARB In-Use Off-Road Diesel Vehicle Regulation | Any relevant vehicle or machine use associated with the project will be subject to CARB standards.<br>The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).<br>The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation. |
| | Cap-and-Trade Program | Transportation fuels (e.g., gasoline) used in equipment operation would be subject to the Cap-and-Trade Program. (See “Energy Use,” below.) |
| Greening New Construction | CALGreen | All new construction, including the project, must comply with CALGreen, as discussed in more detail throughout this table.<br>Adoption of the mandatory CALGreen standards for construction has been essential for improving the overall environmental performance of new buildings; it also sets voluntary targets for builders to exceed the mandatory requirements. |
| Construction Waste | CALGreen | The project will be subject to CALGreen requirements for construction waste reduction, disposal, and recycling, such as a requirement to recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction waste in accordance with Sections 5.408.1.1, 5.408.1.2, or 5.408.1.3 or to meet a local construction and demolition waste management ordinance, whichever is more stringent. |
| Worker, vendor and truck vehicle trips (on-road vehicles) | Cap-and-Trade Program | Transportation fuels (e.g., gasoline) used in worker, vendor and truck vehicle trips would be subject to the Cap-and-Trade Program. |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| **Solid Waste** | | |
| Solid Waste Management | Landfill Methane Control Measure | Waste associated with the project will be disposed per state requirements for landfills, material recovery facilities, and transfer stations. Per the statewide GHG emissions inventory, the largest emissions from waste management sectors come from landfills and are in the form of $CH_4$.<br>In 2010, CARB adopted a regulation that reduces emissions from $CH_4$ in landfills, primarily by requiring owners and operators of certain uncontrolled municipal solid waste landfills to install gas collection and control systems and requiring existing and newly installed gas and control systems to operate in an optimal manner. The regulation allows local air districts to voluntarily enter into a memorandum of understanding with CARB to implement and enforce the regulation and to assess fees to cover costs of implementation. |
| | Mandatory Commercial Recycling (AB 341) | AB 341 will require the project, if it generates 4 cubic yards or more of commercial solid waste per week, to arrange for recycling services using one of the following: self-haul, subscription to a hauler(s), arranging for pickup of recyclable materials, subscription to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation.<br>The project will also be subject to local commercial solid waste recycling program required to be implemented by each jurisdiction under AB 341. |
| | CALGreen | The project will be subject to CALGreen requirement to provide areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling (CALGreen Section 5.410.1). |
| **Energy Use** | | |
| Electricity/Natural Gas Generation | Cap-and-Trade Program | Electricity and natural gas usage associated with the project will be subject to the Cap-and-Trade Program.<br>The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase.<br>Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, RBOB, distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT $CO_2e$ or more annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, |

### Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California. |
| Renewable Energy | California RPS (SB X1-2, SB 350, and SB 100) | Energy providers associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100.<br>SB X1-2 requires investor-owned utilities, publicly owned utilities, and electric service providers to increase purchases of renewable energy such that at least 33% of retail sales are procured from renewable energy resources by December 31, 2020. In the interim, each entity was required to procure an average of 20% of renewable energy for the period of January 1, 2011, through December 31, 2013, and an average of 25% by December 31, 2016, and 33% by 2020.<br>SB 350 requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030.<br>SB 100 increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California by 2045. |
| | Million Solar Roofs Program (SB 1) | The project will participate in California's energy market, which is affected by implementation of the Million Solar Roofs Program.<br>As part of Governor Schwarzenegger's Million Solar Roofs Program, California has set a goal to install 3,000 megawatts of new, solar capacity through 2016. The Million Solar Roofs Program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving down costs over time. |
| | California Solar Initiative-Thermal Program | The project will participate in California's energy market, which is affected by implementation of the California Solar Initiative—Thermal Program. Multifamily and commercial properties qualify for rebates of up to $800,000 on solar water heating systems and eligible solar pool heating systems qualify for rebates of up to $500,000. Funding for the California Solar Initiative – Thermal Program comes from ratepayers of Pacific Gas & Electric, SCE, Southern California Gas Company, and San Diego Gas & Electric. The rebate program is overseen by the CPUC as part of the California Solar Initiative. |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | Waste Heat and Carbon Emissions Reduction Act (AB 1613, AB 2791) | The project will participate in California's energy market, which is affected by implementation of the Waste Heat and Carbon Emissions Reduction Act.<br>Originally enacted in 2007 and in 2008, this act directed the CEC, CPUC, and CARB to implement a program that would encourage the amended development of new combined heat and power systems in California with a generating capacity of not more than 20 megawatts, to increase combined heat and power use by 30,000 gigawatt-hours. The CPUC publicly owned electric utilities, and CEC duly established policies and procedures for the purchase of electricity from eligible combined heat and power systems.<br>CEC guidelines require combined heat and power systems to be designed to reduce waste energy; have a minimum efficiency of 60%; have $NO_x$ emissions of no more than 0.07 pounds per megawatt-hour; be sized to meet eligible customer generation thermal load; operate continuously in a manner that meets expected thermal load and optimizes efficient use of waste heat; and be cost effective, technologically feasible, and environmentally beneficial. |
| **Vehicular/Mobile Sources** | | |
| General | SB 375 and SJCOG RTP/SCS | The project complies with, and is subject to, the SCAG adopted RTP/SCS in 2020. |
| Fuel | Low Carbon Fuel Standard (LCFS)/EO S-01-07 | Auto trips associated with the project will be subject to LCFS (EO S-01-07), which requires a 10% or greater reduction in the average fuel carbon intensity by 2020 with a 2010 baseline for transportation fuels in California regulated by CARB. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve the governor's 2030 and 2050 GHG goals. |
| | Cap-and-Trade Program | Use of gasoline associated with the project will be subject to the Cap-and-Trade Program.<br>The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase.<br>Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, RBOB, distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT $CO_2e$ or more annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California. |

### Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| Automotive Refrigerants | CARB Regulation for Small Containers of Automotive Refrigerant | Vehicles associated with the project will be subject to CARB's Regulation for Small Containers of Automotive Refrigerant (17 CCR 95360 et seq). The regulation applies to the sale, use, and disposal of small containers of automotive refrigerant with a GWP greater than 150. The regulation achieves emission reductions through implementation of four requirements: (1) use of a self-sealing valve on the container, (2) improved labeling instructions, (3) a deposit and recycling program for small containers, and (4) an education program that emphasizes best practices for vehicle recharging. This regulation went into effect on January 1, 2010, with a 1-year sell-through period for containers manufactured before January 1, 2010. The target recycle rate was initially set at 90% and rose to 95% beginning January 1, 2012. |
| Light-Duty Vehicles | AB 1493 (or the Pavley Standard) | Cars that drive to and from the project will be subject to AB 1493, which directed CARB to adopt a regulation requiring the maximum feasible and cost-effective reduction of GHG emissions from new passenger vehicles.<br><br>Pursuant to AB 1493, CARB adopted regulations that establish a declining fleet average standard for $CO_2$, $CH_4$, $N_2O$, and HFCs (air conditioner refrigerants) in new passenger vehicles and light-duty trucks beginning with the 2009 model year and phased-in through the 2016 model year. These standards are divided into those applicable to lighter and those applicable to heavier portions of the passenger vehicle fleet.<br><br>The regulations will reduce "upstream" smog-forming emissions from refining, marketing, and distribution of fuel. |
| | Advanced Clean Car and ZEV Programs | Cars that drive to and from the project will be subject to the Advanced Clean Car and ZEV Programs.<br><br>In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. By 2025, new automobiles will emit 34% fewer global warming gases and 75% fewer smog-forming emissions.<br><br>The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018–2025 model years. |
| | Tire Inflation Regulation | Cars that drive to and from the project will be subject to the CARB Tire Inflation Regulation, which took effect on September 1, 2010, and applies to vehicles with a gross vehicle weight rating of |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | 10,000 pounds or less.<br><br>Under this regulation, automotive service providers must, among other things, check and inflate each vehicle's tires to the recommended tire pressure rating with air or nitrogen, as appropriate, at the time of performing any automotive maintenance or repair service; keep a copy of the service invoice for a minimum of 3 years; and make the vehicle service invoice available to the CARB or its authorized representative upon request. |
| | EPA and NHTSA GHG and CAFE standards. | Mobile sources that travel to and from the project would be subject to EPA and NHTSA GHG and CAFE standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. (75 FR 25324–25728 and 77 FR 62624–63200.) |
| Medium- and Heavy-Duty Vehicles | CARB In-Use On-Road Heavy-Duty Diesel Vehicles Regulation (Truck and Bus Regulation) | Any heavy-duty trucks associated with the project will be subject to CARB standards.<br><br>The regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet PM filter requirements. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.<br><br>The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds. |
| | CARB In-Use Off-Road Diesel Vehicle Regulation | Any relevant vehicle or machine use associated with the project will be subject to CARB standards.<br><br>The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).<br><br>The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation. |
| | Heavy-Duty Vehicle GHG Emission Reduction Regulation | Any relevant vehicle or machine use associated with the project will be subject to CARB standards. The CARB Heavy-Duty Vehicle GHG Emission Reduction Regulation applies to heavy-duty tractors that pull 53-foot or longer box-type trailers. (17 CCR 95300 et seq.) Fuel efficiency is improved |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | through improvements in tractor and trailer aerodynamics and the use of low rolling resistance tires. |
| | EPA and NHTSA GHG and CAFE standards. | Mobile sources that travel to and from the project would be subject to EPA and NHTSA GHG and CAFE standards for medium- and heavy-duty vehicles. (76 FR 57106–57513.) |
| **Water Use** | | |
| Water Use Efficiency | Emergency State Water Board Regulations | Water use associated with the project will be subject to emergency regulations.<br>On May 18, 2016, partially in response to EO B-27-16, the SWRCB adopted emergency water use regulations (23 CCR 864.5 and amended and re-adopted Sections 863, 864, 865, and 866). The regulation directs the SWRCB, Department of Water Resources, and CPUC to implement rates and pricing structures to incentivize water conservation, and calls upon water suppliers, homeowners' associations, California businesses, landlords and tenants, and wholesale water agencies to take stronger conservation measures. |
| | EO B-37-16 | Water use associated with the project will be subject to Emergency EO B-37-16, issued May 9, 2016, which directs the SWRCB to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state.<br>The SWRCB must also develop a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The SWRCB and Department of Water Resources will develop new, permanent water use targets to which the project will be subject.<br>The SWRCB will permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians. |
| | EO B-40-17 | EO B-40-17 lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. It also rescinds EO B-29-15, but expressly states that EO B-37-16 remains in effect and directs the SWRCB to continue development of permanent prohibitions on wasteful water use to which the project will be subject. |
| | SB X7-7 | Water provided to the project will be affected by SB X7-7's requirements for water suppliers.<br>SB X7-7, or the Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency. It also requires, among other things, that the Department of Water Resources, in |

## Table 23. Applicable Greenhouse Gas-Related Laws and Regulations – Cancer Center Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies. |
| | CALGreen | The project is subject to CALGreen's water efficiency standards, including a required 20% mandatory reduction in indoor water use. (CALGreen, Division 4.3.) |
| | California Water Code, Division 6, Part 2.10, Sections 10910–10915. | Development and approval of the project requires the development of a project-specific Water Supply Assessment. |
| | Cap-and-Trade Program | The project will utilize water and discharge wastewater to the local utility. Thus, the Cap-and-Trade Program does not apply to the project. |
| | California RPS (SB X1-2, SB 350, SB 100) | Electricity usage associated with water and wastewater supply, treatment and distribution associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100. |
| | City Ordinance No. 1705-NS | The City adopted a water conservation ordinance on October 11, 2022 putting permanent limits on watering hours, watering durations, and uses. The ordinance prohibits irrigation of non-functional grass on commercial, institutional, and industrial properties. |

**Notes:** CALGreen = California Green Building Standards Code; gpm = gallons per minute; psi = pounds per square inch; HVAC = heating, ventilation, and air conditioning; CFC = chlorofluorocarbon; HCFC = hydrochlorofluorocarbon; HFC = hydrofluorocarbon; AB = Assembly Bill; CEC = California Energy Commission; CARB = California Air Resources Board; GWP = global warming potential; GHG = greenhouse gas; VOC = volatile organic compound; $CH_4$ = methane; RBOB = reformulated gasoline blendstock for oxygenate blending; MT = metric tons; $CO_2e$ = carbon dioxide equivalent; RPS = Renewable Portfolio Standard; SB = Senate Bill; SCE = Southern California Edison; CPUC = California Public Utilities Commission; $NO_x$ = oxides of nitrogen; SJCOG = San Joaquin Council of Governments; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; EO = Executive Order; $CO_2$ = carbon dioxide; $N_2O$ = nitrous oxide; ZEV = zero emission vehicle EPA = Environmental Protection Agency; NHTSA = National Highway Traffic Safety Administration; PM = particulate matter; SWRCB = State Water Resources Control Board.

As shown in Table 23, the Cancer Center Site would be required to comply with the various GHG-reducing regulations.

### Project Consistency with CARB's Scoping Plan

The Scoping Plan, approved by CARB in 2008 and updated in 2014, 2017, and 2022 provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[6] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low-Carbon Fuel Standard), among others. The project would comply with all applicable regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 24 highlights measures that have been developed under the Scoping Plan and the project's consistency with those measures. Table 24 also includes measures recommended in the Scoping Plan. To the extent that these regulations are applicable to the project, its inhabitants, or uses, the Cancer Center Site would comply with all applicable regulations adopted in furtherance of the Scoping Plan.

6 The Final Statement of Reasons for the amendments to the State CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

## Table 24. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Cancer Center Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| **Transportation Sector** | | |
| Advanced Clean Cars | T-1 | *Consistent.* The project's employees and visitors would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase. |
| Low Carbon Fuel Standard | T-2 | *Consistent.* Motor vehicles driven by the project's employees and visitors would use compliant fuels. |
| Low Carbon Fuel Standard (18% reduction in carbon intensity by 2030) | Recommended | *Consistent.* Motor vehicles driven by the project's employees and visitors would use compliant fuels. |
| Regional Transportation-Related GHG Targets | T-3 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Advanced Clean Transit | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Last Mile Delivery | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Reduction in Vehicle Miles Traveled | Recommended | *Not applicable.* The project would not prevent CARB from implementing this measure. |
| Vehicle Efficiency Measures<br>1. Tire Pressure<br>2. Fuel Efficiency Tire Program<br>3. Low-Friction Oil<br>4. Solar-Reflective Automotive Paint and Window Glazing | T-4 | *Consistent.* These standards would be applicable to the light-duty vehicles that would access the project site. Motor vehicles driven by the project's employees and visitors would maintain proper tire pressure when their vehicles are serviced. The project's employees would replace tires in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase. Motor vehicles driven by the project's employees and visitors would use low-friction oils when their vehicles are serviced. The project's employees would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase. In addition, the project would not prevent CARB from implementing this measure. |
| Ship Electrification at Ports (Shore Power) | T-5 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 24. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Cancer Center Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| Goods Movement Efficiency Measures<br>1. Port Drayage Trucks<br>2. Transport Refrigeration Units Cold Storage Prohibition<br>3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification<br>4. Goods Movement Systemwide Efficiency Improvements<br>5. Commercial Harbor Craft Maintenance and Design Efficiency<br>6. Clean Ships<br>7. Vessel Speed Reduction | T-6 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| California Sustainable Freight Action Plan | Recommended | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Heavy-Duty Vehicle GHG Emission Reduction<br>1. Tractor-Trailer GHG Regulation<br>2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I) | T-7 | *Consistent.* Heavy-duty vehicles would be required to comply with CARB GHG reduction measures. In addition, the project would not prevent CARB from implementing this measure. |
| Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive project | T-8 | *Consistent.* The project's medium- and heavy-duty vehicles (e.g., delivery trucks) could take advantage of the vehicle hybridization action, which would reduce GHG emissions through increased fuel efficiency. In addition, the project would not prevent CARB from implementing this measure. |
| Medium and Heavy-Duty GHG Phase 2 | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| High-Speed Rail | T-9 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Transportation Electrification | 2022 Appendix D | *Consistent.* The project would include EV charging requirements within the 2022 Title 24 Standards. |

## Table 24. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Cancer Center Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| **VMT Reduction** | | |
| Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer) | 2022 Appendix D | *Consistent.* The project site is located on a previously developed site that would be repurposed for the medical office building. |
| Does not result in the loss or conversion of natural and working lands | 2022 Appendix D | *Consistent.* The project site is located on a previously disturbed parcel and would not convert natural or working lands. |
| Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre), or,<br>Is in proximity to existing transit stops (within a half mile), or<br>Satisfies more detailed and stringent criteria specified in the region's SCS. | 2022 Appendix D | *Consistent.* The project is within 200 feet of a bus stop serving the City and greater Ventura County. |
| Reduces parking requirements by:<br>Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or Providing residential parking supply at a ratio of less than one parking space per dwelling unit; or<br>For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit. | 2022 Appendix D | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 24. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Cancer Center Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| At least 20 percent of units included are affordable to lower-income residents | 2022 Appendix D | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Results in no net loss of existing affordable units | 2022 Appendix D | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking | 2022 Appendix D | *Not applicable.* The project must meet requirements within the HCAI Office of Statewide Hospital Planning and Development (OSHPD) Building Standards which requires the use of natural gas in certain medical treatment devices. The project would use natural gas in accordance with applicable Title 24 standards at the time of construction. |
| **Electricity and Natural Gas Sector** | | |
| Energy Efficiency Measures (Electricity) | E-1 | *Consistent.* The project would comply with current Title 24, Part 6, of the California Code of Regulations energy efficiency standards for electrical appliances and other devices at the time of building construction. The project would include cool roofs, insulating glass windows, and LED lighting to minimize electricity use. |
| Energy Efficiency (Natural Gas) | CR-1 | *Consistent.* The project would use natural gas in accordance with applicable Title 24 standards at the time of construction. |
| Solar Water Heating (California Solar Initiative Thermal Program) | CR-2 | *Not applicable.* The project would not prevent CARB from implementing this measure. |
| Combined Heat and Power | E-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Renewable Portfolios Standard (33% by 2020) | E-3 | *Consistent.* While the project would support this goal, the 2020 goal has passed and would no longer apply. |
| Renewable Portfolios Standard (50% by 2050) | Recommended | *Consistent.* The project would purchase electricity from SCE who is required to meet the goals within the RPS. |
| Senate Bill 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs | E-4 | *Not applicable.* The project would not prevent CARB from implementing this measure. |
| **Water Sector** | | |

## Table 24. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Cancer Center Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| Water Use Efficiency | W-1 | *Consistent.* The proposed project would use high-efficiency toilets, waterless urinals, low-flow fixtures, drip irrigation, and water-efficient landscaping. |
| Water Recycling | W-2 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Water System Energy Efficiency | W-3 | *Not applicable.* This is applicable for the transmission and treatment of water, but it is not applicable for the project. |
| Reuse Urban Runoff | W-4 | *Not applicable.* The reuse of urban water on site was determined to not be feasible. The project would not prevent CARB from implementing this measure. |
| Renewable Energy Production | W-5 | *Not applicable.* Applicable for wastewater treatment systems. Not applicable for the project. |
| **Green Buildings** | | |
| State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings) | GB-1 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings) | GB-2 | *Consistent.* The project would be built in accordance with Title 11 CALGreen standards in place at the time building permits are obtained. |
| Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings) | GB-3 | *Consistent.* The project would be built in accordance with Title 11 CALGreen standards in place at the time building permits are obtained. |
| Greening Existing Buildings (Greening Existing Homes and Commercial Buildings) | GB-4 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| **Industry Sector** | | |
| Energy Efficiency and Co-Benefits Audits for Large Industrial Sources | I-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Oil and Gas Extraction GHG Emission Reduction | I-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Reduce GHG Emissions by 20% in Oil Refinery Sector | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| GHG Emissions Reduction from Natural Gas Transmission and Distribution | I-3 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 24. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Cancer Center Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| Refinery Flare Recovery Process Improvements | I-4 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks | I-5 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **Recycling and Waste Management Sector** | | |
| Landfill Methane Control Measure | RW-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Increasing the Efficiency of Landfill Methane Capture | RW-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Mandatory Commercial Recycling | RW-3 | *Consistent.* During both construction and operation of the project, the project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended. During construction, all wastes would be recycled to the maximum extent possible. |
| Increase Production and Markets for Compost and Other Organics | RW-4 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Anaerobic/Aerobic Digestion | RW-5 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Extended Producer Responsibility | RW-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Environmentally Preferable Purchasing | RW-7 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **Forests Sector** | | |
| Sustainable Forest Target | F-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **High Global Warming Potential Gases Sector** | | |
| Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing | H-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 24. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Cancer Center Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| $SF_6$ Limits in Non-Utility and Non-Semiconductor Applications | H-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Reduction of Perfluorocarbons in Semiconductor Manufacturing | H-3 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Limit High Global Warming Potential Use in Consumer Products | H-4 | *Consistent.* The project's employees would use consumer products that would comply with the regulations that are in effect at the time of manufacture. |
| Air Conditioning Refrigerant Leak Test During Vehicle Smog Check | H-5 | *Consistent.* Employees of the project would conduct air conditioning refrigerant leak tests during periodic vehicle smog checks. |
| Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program | H-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration | H-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| $SF_6$ Leak Reduction Gas Insulated Switchgear | H-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| 40% reduction in methane and hydrofluorocarbon emissions | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| 50% reduction in black carbon emissions | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **Agriculture Sector** | | |
| Methane Capture at Large Dairies | A-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

**Sources:** CARB 2008, 2017b, 2022.
**Notes:** GHG = greenhouse gas; CARB = California Air Resources Board; EV = electric vehicle; SCE = Southern California Edison; RPS = Renewable Portfolio Standard; CALGreen = California Green Building Standards Code; $SF_6$ = sulfur hexafluoride.

Based on the analysis in Table 24, the Cancer Center Site would be consistent with the applicable strategies and measures in the Scoping Plan.

### Project Consistency with Southern California Association of Government's Regional Transportation Plan/Sustainable Communities Strategy

The SCAG 2020–2045 RTP/SCS is a regional growth management strategy that targets per-capita GHG reduction from passenger vehicles and light trucks in the Southern California region pursuant to SB 375. In addition to demonstrating the region's ability to attain the GHG emission-reduction targets set forth by CARB, the 2020–2045 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2020–2045 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use.

The following strategies are intended to be supportive of implementing the 2020–2045 RTP/SCS and reducing GHGs: focus growth near destinations and mobility options, promote diverse housing choices, leverage technology innovations, support implementation of sustainability policies, and promote a green region. The strategies that pertain to SCAG's support of local jurisdiction sustainability efforts would not apply to the project because those are strategies that are taken by SCAG to work with local jurisdictions to implement SCAG's goals and policies (SCAG 2020). Compliance with the remaining applicable strategies is presented below.

- **Focus Growth Near Destinations and Mobility Options.** The Cancer Center Site would facilitate the development of a medical office building. The project would be located in close proximity to existing mass transit and other office and medical support buildings.
- **Leverage Technology Innovations.** The Cancer Center Site would comply with this strategy of the 2020–2045 RTP/SCS because it would be consistent with the County's General Plan policies and would be required to comply with the 2022 Title 24 Standards and 2022 CALGreen at a minimum, through energy-efficient design and support of low emission technologies for transportation, such as alternative fuel vehicles to reduce per-capita GHG emissions. As required by 2022 CALGreen, the project would include 27 EV charging spaces for employees and visitors.

In addition to the above applicable SCAG 2020–2045 RTP/SCS strategy analysis, Table 25 provides a detailed analysis of applicable RTP/SCS policies.

### Table 25. Project Consistency with Applicable Goals of SCAG's 2020–2045 RTP/SCS - Cancer Center Site

| Goal | Would the Project conflict? |
|---|---|
| Improve mobility, accessibility, reliability, and travel safety for people and goods. | **No Conflict.** The project includes the development of a medical office building on a previously developed site. The project would not inhibit SCAG from improving mobility for people or goods in the region. |
| Enhance the preservation, security, and resilience of the regional transportation system. | **No Conflict.** The project includes the development of a medical office building on a previously developed site. The proximity of the project site to various transportation modes would support the region's transportation investment and the sustainability of the regional transportation system in support of this goal. The project would not inhibit SCAG from preserving or securing the regional transportation |

## Table 25. Project Consistency with Applicable Goals of SCAG's 2020–2045 RTP/SCS - Cancer Center Site

| Goal | Would the Project conflict? |
|---|---|
| | system. |
| Increase person and goods movement and travel choices within the transportation system. | **No Conflict.** The project is located in close proximity to U.S. 101, a high-quality transportation corridor, as well as existing bus infrastructure. These project characteristics would not conflict with the goal to increase the person and goods movement and travel choices within the transportation system. |
| Reduce greenhouse gas emissions and improve air quality. | **No Conflict.** The project would meet or exceed the applicable requirements of the Title 24 Building Energy Efficiency Standards and CALGreen or applicable version at the time of building permit issuance. The project will include cool roofs, insulated windows, LED lighting, and low-water use features. Based on the above, the project's design and characteristics would serve to reduce GHG emissions and improve air quality, in support of this goal. |
| Support healthy and equitable communities. | **No Conflict.** The project would provide additional medical facilities in close proximity to existing residential and bus infrastructure. The project would support SCAG's promotion of healthy and equitable communities. |
| Adapt to changing climate and support an integrated regional development pattern and transportation network. | **No Conflict.** See discussion above regarding the project's location near U.S. 101 and existing bus infrastructure. The project's development would support an integrated regional development pattern and transportation network which would in turn serve to reduce GHG emissions in support of this goal. |
| Leverage new transportation technologies and data-driven solutions that result in more efficient travel. | **No Conflict.** This goal pertains to SCAG leveraging new transportation technologies and data-driven solutions that result in more efficient travel. The project would not adversely affect SCAG's ability to develop more efficient travel consistent with this goal. |
| Encourage development of diverse housing types in areas that are supported by multiple transportation options. | **No Conflict.** The project includes development of a medical office building. As such, this goal would not apply. |
| Promote conservation of natural and agricultural lands and restoration of habitats. | **No Conflict.** The project would be developed on an existing developed site. As such, no natural or agricultural lands would be converted as part of the project. |

**Note**: SCAG = Southern California Association of Governments; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; CALGreen = California Green Building Standards Code; GHG = greenhouse gas.

As discussed in Table 25, the Cancer Center Site would not conflict with the 2020–2045 RTP/SCS goals and benefits intended to improve mobility and access to diverse destinations and reduce vehicular demand and associated emissions.

Because the Cancer Center Site would comply with the applicable GHG reduction strategies and policies outlined in the 2020–2045 RTP/SCS, impacts related to consistency with an applicable GHG reduction plan would be less than significant.

## Project Consistency with Senate Bill 32 and Executive Order S-3-05

The Cancer Center Site would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32. As discussed in Section 3.2.2, EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the 2030 Scoping Plan, which states (CARB 2017b):

> The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

### Janss Road Site

The Janss Road Site's consistency with statewide GHG reduction strategies is summarized in detail in Table 26.

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| **Building Components/Facility Operations** | | |
| Roofs/Ceilings/ Insulation | CALGreen (Title 24, Part 11)<br>California Energy Code (Title 24, Part 6) | The project must comply with efficiency standards regarding roofing, ceilings, and insulation. For example:<br>Roofs/Ceilings: New construction must reduce roof heat island effects per CALGreen Section 106.11.2, which requires use of roofing materials having a minimum aged solar reflectance, thermal emittance complying with Section A5.106.11.2.2 and A5.106.11.2.3 or a minimum aged Solar Reflectance Index as specified in Tables A5.106.11.2.2, or A5.106.11.2.3. Roofing materials must also meet solar reflectance and thermal emittance standards contained in Title 20 Standards.<br>Roof/Ceiling Insulation: There are also requirements for the installation of roofing and ceiling insulation. (See Title 24, Part 6, Section 1110.8) |
| Flooring | CALGreen | The project must comply with efficiency standards regarding flooring materials. For example, 80% of floor area must receive “resilient flooring” and the flooring must meet applicable installation and material requirements contained in CALGreen Section 5.504.4.6. |
| Window and Doors (Fenestration) | California Energy Code | The project must comply with fenestration efficiency requirements. For example, the choice of windows, glazed doors, and any skylights for the project must conform to energy consumption requirements affecting size, orientation, and types of fenestration products used. (See Title 24, Part 6, Section 3.3.) |
| Building Walls/ Insulation | CALGreen<br>California Energy Code | The project must comply with efficiency requirements for building walls and insulation.<br>Exterior Walls: Must meet requirements in current edition of California Energy Code and comply with Sections A5.106.7.1 or A5.106.7.2 of CALGreen for wall surfaces, as well as Section 5.407.1, which requires weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2. Construction must also meet requirements contained in Title 24, Part 6, which vary by material of the exterior walls. (See Title 24, Part 6, Section 3.2.3.)<br>Demising (Interior) Walls: Mandatory insulation requirements for demising walls (which separate conditioned from non-conditioned space) differ by the type of wall material used (Title 24, Part 6, Section 3.2.4).<br>Door Insulation: There are mandatory requirements for air infiltration rates to improve insulation efficiency; they differ according to the type of door (Title 24, Part 6, Section 3.2.5).<br>Flooring Insulation: There are mandatory requirements for insulation that depend on the material and location of the flooring (Title 24, Part 6, Section 3.2.6). |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| Finish Materials | CALGreen | The project must comply with pollutant control requirements for finish materials. For example, materials including adhesives, sealants, caulks, paints and coatings, carpet systems, and composite wood products must meet requirements in CALGreen to ensure pollutant control (CALGreen Section 5.504.4). |
| Wet Appliances (Toilets/Faucets/Urinal, Dishwasher/Clothes Washer, Spa and Pool/ Water Heater) | CALGreen<br><br>California Energy Code<br><br>Appliance Efficiency Regulations (Title 20 Standards) | Wet appliances associated with the project must meet various efficiency requirements. For example:<br><br>Spa and Pool: Use associated with the project is subject to appliance efficiency requirements for service water heating systems and equipment, spa and pool heating systems and equipment. (See Title 24, Part 6, Sections 110.3, 110.4, 110.5; Title 20 Standards, Sections 1605.1[g], 1605.3[g]; see also California Energy Code.)<br><br>Toilets/Faucets/Urinals: Use associated with the project is subject to new maximum rates for toilets, urinals, and faucets effective January 1, 2016 (Title 20 Standards, Sections 1605.1[h], [i] 1065.3[h], [i]):<br>▪ Showerheads maximum flow rate 2.5 gpm at 80 psi<br>▪ Wash fountains 2.2 × (rim space in inches/20) gpm at 60 psi<br>▪ Metering faucets 0.25 gallons/cycle<br>▪ Lavatory faucets and aerators 1.2 gpm at 60 psi<br>▪ Kitchen faucets and aerators 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi<br>▪ Public lavatory faucets 0.5 gpm at 60 psi<br>▪ Trough-type urinals 16 inches length<br>▪ Wall mounted urinals 0.125 gallons per flush<br>▪ Other urinals 0.5 gallons per flush<br><br>Water Heaters: Use associated with the project is subject to appliance efficiency requirements for water heaters. (Title 20 Standards, Sections 1605.1[f], 1605.3[f].)<br><br>Dishwasher/Clothes Washer: Use associated with the project is subject to appliance efficiency requirements for dishwashers and clothes washers. (Title 20 Standards, Sections 1605.1[o], [p], [q], 1605.3[o], [p], [q].) |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| Dry Appliances (Refrigerator/Freezer, Heater/Air Conditioner, Clothes Dryer) | Title 20 Standards<br>CALGreen | Dry appliances associated with the project must meet various efficiency requirements. For example:<br>Refrigerator/Freezer: Use associated with the project is subject to appliance efficiency requirements for refrigerators and freezers. (Title 20 Standards, Sections 1605.1[a], 1605.3[a].)<br>Heater/Air Conditioner: Use associated with the project is subject to appliance efficiency requirements for heaters and air conditioners. (Title 20 Standards, Sections 1605.1[b], [c], [d], [e], 1605.3[b], [c], [d], [e] as applicable.)<br>Clothes Dryer: Use associated with the project is subject to appliance efficiency requirements for clothes dryers. (Title 20 Standards, Section 1605.1[q].) |
| | CALGreen | Installations of HVAC, refrigeration, and fire suppression equipment must comply with CALGreen Sections 5.508.1.1 and 508.1.2, which prohibits CFCs, halons, and certain HCFCs and HFCs. |
| Lighting | Title 20 Standards | Lighting associated with the project will be subject to energy efficiency requirements contained in Title 20 Standards.<br>General Lighting: Indoor and outdoor lighting associated with the project must comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1[j], [k], [n], 1605.3[j], [k], [n]).<br>Emergency lighting and self-contained lighting: the project must also comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1[l], 1605.3[l]).<br>Traffic Signal Lighting: For any necessary project improvements involving traffic lighting, traffic signal modules and traffic signal lamps will need to comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1[m], 1605.3[m]). |
| | California Energy Code | Lighting associated with the project will also be subject to energy efficiency requirements contained in Title 24, Part 6, which contains energy standards for non-residential indoor lighting and outdoor lighting. (See Title 24 Part 6, Sections 5 and 6.)<br>Mandatory lighting controls for indoor lighting include, for example, regulations for automatic shut-off, automatic daytime controls, demand responsive controls, and certificates of installation. (See Title 24 Part 6, Section 5.) Regulations for outdoor lighting include, for example, creation of lighting zones, lighting power requirements, a hardscape lighting power allowance, requirements for outdoor incandescent and luminaire lighting, and lighting control functionality. (See Title 24 Part 6, Section 6.) |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | AB 1109 | Lighting associated with the project will be subject to energy efficiency requirements adopted pursuant to AB 1109.<br>Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 25% for indoor commercial lighting. |
| Bicycle and Vehicle Parking | CALGreen | The project will be required to provide compliant bicycle parking, fuel-efficient vehicle parking, and electric vehicle charging spaces (CALGreen Sections 5.106.4, 5.106.5.1, 5.106.5.3). |
| | California Energy Code | The project is also subject to parking requirements contained in Title 24, Part 6. For example, parking capacity is to meet but not exceed minimum local zoning requirements and the project should employ approved strategies to reduce parking capacity (Title 24, Part 6, Section 106.6). |
| Landscaping | CALGreen | CALGreen requires and has further voluntary provisions for:<br>▪ A water budget for landscape irrigation use<br>▪ For new water service, separate meters or submeters must be installed for indoor and outdoor potable water use for landscaped areas of 1,000–5,000 square feet<br>▪ Provide water-efficient landscape design that reduces use of potable water beyond initial requirements for plant installation and establishment |
| | Model Water Efficient Landscaping Ordinance | The model ordinance promotes efficient landscaping in new developments and establishes an outdoor water budget for new and renovated landscaped areas that are 500 square feet or larger. (23 CCR, Division 2, Chapter 2.7.) |
| | Cap-and-Trade Program | Transportation fuels used in landscape maintenance equipment (e.g., gasoline) would be subject to the Cap-and-Trade Program. (See "Energy Use," below.) |
| Refrigerants | CARB Management of High GWP Refrigerants for Stationary Sources | Any refrigerants associated with the project will be subject to CARB standards. CARB's Regulation for the Management of High GWP Refrigerants for Stationary Sources (1) reduces emissions of high-GWP refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduces emissions resulting from the installation and servicing of stationary refrigeration and air conditioning appliances using high-GWP refrigerants; and (3) requires verification of GHG emission reductions. (17 CCR 95380 et seq.) |
| Consumer Products | CARB High GWP GHGs in Consumer Products | All consumer products associated with the project will be subject to CARB standards. CARB's consumer products regulations set VOC limits for numerous categories of consumer products and limit the reactivity of the ingredients used in numerous categories of aerosol coating products (17 CCR, Division 3, Chapter 1, Subchapter 8.5). |

### Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| **Construction** | | |
| Use of Off-Road Diesel Engines, Vehicles, and Equipment | CARB In-Use Off-Road Diesel Vehicle Regulation | Any relevant vehicle or machine use associated with the project will be subject to CARB standards.<br>The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).<br>The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation. |
| | Cap-and-Trade Program | Transportation fuels (e.g., gasoline) used in equipment operation would be subject to the Cap-and-Trade Program. (See “Energy Use,” below.) |
| Greening New Construction | CALGreen | All new construction, including the project, must comply with CALGreen, as discussed in more detail throughout this table.<br>Adoption of the mandatory CALGreen standards for construction has been essential for improving the overall environmental performance of new buildings; it also sets voluntary targets for builders to exceed the mandatory requirements. |
| Construction Waste | CALGreen | The project will be subject to CALGreen requirements for construction waste reduction, disposal, and recycling, such as a requirement to recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction waste in accordance with Sections 5.408.1.1, 5.408.1.2, or 5.408.1.3 or to meet a local construction and demolition waste management ordinance, whichever is more stringent. |
| Worker, vendor and truck vehicle trips (on-road vehicles) | Cap-and-Trade Program | Transportation fuels (e.g., gasoline) used in worker, vendor and truck vehicle trips would be subject to the Cap-and-Trade Program. |

### Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| **Solid Waste** | | |
| Solid Waste Management | Landfill Methane Control Measure | Waste associated with the project will be disposed per state requirements for landfills, material recovery facilities, and transfer stations. Per the statewide GHG emissions inventory, the largest emissions from waste management sectors come from landfills and are in the form of $CH_4$.<br>In 2010, CARB adopted a regulation that reduces emissions from $CH_4$ in landfills, primarily by requiring owners and operators of certain uncontrolled municipal solid waste landfills to install gas collection and control systems and requiring existing and newly installed gas and control systems to operate in an optimal manner. The regulation allows local air districts to voluntarily enter into a memorandum of understanding with CARB to implement and enforce the regulation and to assess fees to cover costs of implementation. |
| | Mandatory Commercial Recycling (AB 341) | AB 341 will require the project, if it generates 4 cubic yards or more of commercial solid waste per week, to arrange for recycling services using one of the following: self-haul, subscription to a hauler(s), arranging for pickup of recyclable materials, subscription to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation.<br>The project will also be subject to local commercial solid waste recycling program required to be implemented by each jurisdiction under AB 341. |
| | CALGreen | The project will be subject to CALGreen requirement to provide areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling (CALGreen Section 5.410.1). |
| **Energy Use** | | |
| Electricity/Natural Gas Generation | Cap-and-Trade Program | Electricity and natural gas usage associated with the project will be subject to the Cap-and-Trade Program.<br>The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase.<br>Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, RBOB, distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT $CO_2e$ or more annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California. |
| Renewable Energy | California RPS (SB X1-2, SB 350, and SB 100) | Energy providers associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100.<br><br>SB X1-2 requires investor-owned utilities, publicly owned utilities, and electric service providers to increase purchases of renewable energy such that at least 33% of retail sales are procured from renewable energy resources by December 31, 2020. In the interim, each entity was required to procure an average of 20% of renewable energy for the period of January 1, 2011, through December 31, 2013, and an average of 25% by December 31, 2016, and 33% by 2020.<br><br>SB 350 requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030.<br><br>SB 100 increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California by 2045. |
| | Million Solar Roofs Program (SB 1) | The project will participate in California's energy market, which is affected by implementation of the Million Solar Roofs Program.<br><br>As part of Governor Schwarzenegger's Million Solar Roofs Program, California has set a goal to install 3,000 megawatts of new, solar capacity through 2016. The Million Solar Roofs Program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving down costs over time. |
| | California Solar Initiative-Thermal Program | The project will participate in California's energy market, which is affected by implementation of the California Solar Initiative—Thermal Program. Multifamily and commercial properties qualify for rebates of up to $800,000 on solar water heating systems and eligible solar pool heating systems qualify for rebates of up to $500,000. Funding for the California Solar Initiative – Thermal Program comes from ratepayers of Pacific Gas & Electric, SCE, Southern California Gas Company, and San Diego Gas & Electric. The rebate program is overseen by the CPUC as part of the California Solar Initiative. |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | Waste Heat and Carbon Emissions Reduction Act (AB 1613, AB 2791) | The project will participate in California's energy market, which is affected by implementation of the Waste Heat and Carbon Emissions Reduction Act.<br>Originally enacted in 2007 and in 2008, this act directed the CEC, CPUC, and CARB to implement a program that would encourage the amended development of new combined heat and power systems in California with a generating capacity of not more than 20 megawatts, to increase combined heat and power use by 30,000 gigawatt-hours. The CPUC publicly owned electric utilities, and CEC duly established policies and procedures for the purchase of electricity from eligible combined heat and power systems.<br>CEC guidelines require combined heat and power systems to be designed to reduce waste energy; have a minimum efficiency of 60%; have $NO_x$ emissions of no more than 0.07 pounds per megawatt-hour; be sized to meet eligible customer generation thermal load; operate continuously in a manner that meets expected thermal load and optimizes efficient use of waste heat; and be cost effective, technologically feasible, and environmentally beneficial. |
| **Vehicular/Mobile Sources** | | |
| General | SB 375 and SJCOG RTP/SCS | The project complies with, and is subject to, the SCAG adopted RTP/SCS in 2020. |
| Fuel | Low Carbon Fuel Standard (LCFS)/EO S-01-07 | Auto trips associated with the project will be subject to LCFS (EO S-01-07), which requires a 10% or greater reduction in the average fuel carbon intensity by 2020 with a 2010 baseline for transportation fuels in California regulated by CARB. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve the governor's 2030 and 2050 GHG goals. |
| | Cap-and-Trade Program | Use of gasoline associated with the project will be subject to the Cap-and-Trade Program.<br>The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase.<br>Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, RBOB, distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT $CO_2e$ or more annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California. |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| Automotive Refrigerants | CARB Regulation for Small Containers of Automotive Refrigerant | Vehicles associated with the project will be subject to CARB's Regulation for Small Containers of Automotive Refrigerant (17 CCR 95360 et seq). The regulation applies to the sale, use, and disposal of small containers of automotive refrigerant with a GWP greater than 150. The regulation achieves emission reductions through implementation of four requirements: (1) use of a self-sealing valve on the container, (2) improved labeling instructions, (3) a deposit and recycling program for small containers, and (4) an education program that emphasizes best practices for vehicle recharging. This regulation went into effect on January 1, 2010, with a 1-year sell-through period for containers manufactured before January 1, 2010. The target recycle rate was initially set at 90% and rose to 95% beginning January 1, 2012. |
| Light-Duty Vehicles | AB 1493 (or the Pavley Standard) | Cars that drive to and from the project will be subject to AB 1493, which directed CARB to adopt a regulation requiring the maximum feasible and cost-effective reduction of GHG emissions from new passenger vehicles.<br><br>Pursuant to AB 1493, CARB adopted regulations that establish a declining fleet average standard for $CO_2$, $CH_4$, $N_2O$, and HFCs (air conditioner refrigerants) in new passenger vehicles and light-duty trucks beginning with the 2009 model year and phased-in through the 2016 model year. These standards are divided into those applicable to lighter and those applicable to heavier portions of the passenger vehicle fleet.<br><br>The regulations will reduce "upstream" smog-forming emissions from refining, marketing, and distribution of fuel. |
| | Advanced Clean Car and ZEV Programs | Cars that drive to and from the project will be subject to the Advanced Clean Car and ZEV Programs.<br><br>In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. By 2025, new automobiles will emit 34% fewer global warming gases and 75% fewer smog-forming emissions.<br><br>The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018–2025 model years. |
| | Tire Inflation Regulation | Cars that drive to and from the project will be subject to the CARB Tire Inflation Regulation, which took effect on September 1, 2010, and applies to vehicles with a gross vehicle weight rating of |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | 10,000 pounds or less.<br><br>Under this regulation, automotive service providers must, among other things, check and inflate each vehicle's tires to the recommended tire pressure rating with air or nitrogen, as appropriate, at the time of performing any automotive maintenance or repair service; keep a copy of the service invoice for a minimum of 3 years; and make the vehicle service invoice available to the CARB or its authorized representative upon request. |
| | EPA and NHTSA GHG and CAFE standards. | Mobile sources that travel to and from the project would be subject to EPA and NHTSA GHG and CAFE standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. (75 FR 25324–25728 and 77 FR 62624–63200.) |
| Medium- and Heavy-Duty Vehicles | CARB In-Use On-Road Heavy-Duty Diesel Vehicles Regulation (Truck and Bus Regulation) | Any heavy-duty trucks associated with the project will be subject to CARB standards.<br><br>The regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet PM filter requirements. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.<br><br>The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds. |
| | CARB In-Use Off-Road Diesel Vehicle Regulation | Any relevant vehicle or machine use associated with the project will be subject to CARB standards.<br><br>The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).<br><br>The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation. |
| | Heavy-Duty Vehicle GHG Emission Reduction Regulation | Any relevant vehicle or machine use associated with the project will be subject to CARB standards.<br>The CARB Heavy-Duty Vehicle GHG Emission Reduction Regulation applies to heavy-duty tractors that pull 53-foot or longer box-type trailers. (17 CCR 95300 et seq.) Fuel efficiency is improved |

## Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | through improvements in tractor and trailer aerodynamics and the use of low rolling resistance tires. |
| | EPA and NHTSA GHG and CAFE standards. | Mobile sources that travel to and from the project would be subject to EPA and NHTSA GHG and CAFE standards for medium- and heavy-duty vehicles. (76 FR 57106–57513.) |
| **Water Use** | | |
| Water Use Efficiency | Emergency State Water Board Regulations | Water use associated with the project will be subject to emergency regulations.<br><br>On May 18, 2016, partially in response to EO B-27-16, the SWRCB adopted emergency water use regulations (23 CCR 864.5 and amended and re-adopted Sections 863, 864, 865, and 866). The regulation directs the SWRCB, Department of Water Resources, and CPUC to implement rates and pricing structures to incentivize water conservation, and calls upon water suppliers, homeowners' associations, California businesses, landlords and tenants, and wholesale water agencies to take stronger conservation measures. |
| | EO B-37-16 | Water use associated with the project will be subject to Emergency EO B-37-16, issued May 9, 2016, which directs the SWRCB to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state.<br><br>The SWRCB must also develop a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The SWRCB and Department of Water Resources will develop new, permanent water use targets to which the project will be subject.<br><br>The SWRCB will permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians. |
| | EO B-40-17 | EO B-40-17 lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. It also rescinds EO B-29-15, but expressly states that EO B-37-16 remains in effect and directs the SWRCB to continue development of permanent prohibitions on wasteful water use to which the project will be subject. |
| | SB X7-7 | Water provided to the project will be affected by SB X7-7's requirements for water suppliers.<br>SB X7-7, or the Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency. It also requires, among other things, that the Department of Water Resources, in |

### Table 26. Applicable Greenhouse Gas-Related Laws and Regulations – Janss Road Site

| Project Component | Applicable Laws/ Regulations | GHG Reduction Measures Required for project |
|---|---|---|
| | | consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies. |
| | CALGreen | The project is subject to CALGreen's water efficiency standards, including a required 20% mandatory reduction in indoor water use. (CALGreen, Division 4.3.) |
| | California Water Code, Division 6, Part 2.10, Sections 10910–10915. | Development and approval of the project requires the development of a project-specific Water Supply Assessment. |
| | Cap-and-Trade Program | The project will utilize water and discharge wastewater to the local utility. Thus, the Cap-and-Trade Program does not apply to the project. |
| | California RPS (SB X1-2, SB 350, SB 100) | Electricity usage associated with water and wastewater supply, treatment and distribution associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100. |

**Notes:** CALGreen = California Green Building Standards Code; gpm = gallons per minute; psi = pounds per square inch; HVAC = heating, ventilation, and air conditioning; CFC = chlorofluorocarbon; HCFC = hydrochlorofluorocarbon; HFC = hydrofluorocarbon; AB = Assembly Bill; CEC = California Energy Commission; CARB = California Air Resources Board; GWP = global warming potential; GHG = greenhouse gas; VOC = volatile organic compound; $CH_4$ = methane; RBOB = reformulated gasoline blendstock for oxygenate blending; MT = metric tons; $CO_2e$ = carbon dioxide equivalent; RPS = Renewable Portfolio Standard; SB = Senate Bill; SCE = Southern California Edison; CPUC = California Public Utilities Commission; $NO_x$ = oxides of nitrogen; SJCOG = San Joaquin Council of Governments; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; EO = Executive Order; $CO_2$ = carbon dioxide; $N_2O$ = nitrous oxide; ZEV = zero emission vehicle EPA = Environmental Protection Agency; NHTSA = National Highway Traffic Safety Administration; PM = particulate matter; SWRCB = State Water Resources Control Board.

As shown in Table 26, the Janss Road Site would be required to comply with the various GHG-reducing regulations.

## Project Consistency with CARB's Scoping Plan

The Scoping Plan, approved by CARB in 2008 and updated in 2014, 2017, and 2022 provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[7] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low-Carbon Fuel Standard), among others. The Janss Road Site would comply with all applicable regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 27 highlights measures that have been developed under the Scoping Plan and the project's consistency with those measures. Table 27 also includes measures recommended in the Scoping Plan. To the extent that these regulations are applicable to the project, its inhabitants, or uses, the Janss Road Site would comply with all applicable regulations adopted in furtherance of the Scoping Plan.

7 The Final Statement of Reasons for the amendments to the State CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

## Table 27. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Janss Road Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| **Transportation Sector** | | |
| Advanced Clean Cars | T-1 | *Consistent.* The project's residents would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase. |
| Low Carbon Fuel Standard | T-2 | *Consistent.* Motor vehicles driven by the project's residents would use compliant fuels. |
| Low Carbon Fuel Standard (18% reduction in carbon intensity by 2030) | Recommended | *Consistent.* Motor vehicles driven by the project's residents would use compliant fuels. |
| Regional Transportation-Related GHG Targets | T-3 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Advanced Clean Transit | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Last Mile Delivery | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Reduction in Vehicle Miles Traveled | Recommended | *Not applicable.* The project would not prevent CARB from implementing this measure. |
| Vehicle Efficiency Measures<br>5. Tire Pressure<br>6. Fuel Efficiency Tire Program<br>7. Low-Friction Oil<br>8. Solar-Reflective Automotive Paint and Window Glazing | T-4 | *Consistent.* These standards would be applicable to the light-duty vehicles that would access the project site. Motor vehicles driven by the project's residents would maintain proper tire pressure when their vehicles are serviced. The project's residents would replace tires in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase. Motor vehicles driven by the project's residents would use low-friction oils when their vehicles are serviced. The project's residents would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase. In addition, the project would not prevent CARB from implementing this measure. |
| Ship Electrification at Ports (Shore Power) | T-5 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 27. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Janss Road Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| Goods Movement Efficiency Measures<br>8. Port Drayage Trucks<br>9. Transport Refrigeration Units Cold Storage Prohibition<br>10. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification<br>11. Goods Movement Systemwide Efficiency Improvements<br>12. Commercial Harbor Craft Maintenance and Design Efficiency<br>13. Clean Ships<br>14. Vessel Speed Reduction | T-6 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| California Sustainable Freight Action Plan | Recommended | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Heavy-Duty Vehicle GHG Emission Reduction<br>3. Tractor-Trailer GHG Regulation<br>4. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I) | T-7 | *Consistent.* Heavy-duty vehicles would be required to comply with CARB GHG reduction measures. In addition, the project would not prevent CARB from implementing this measure. |
| Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive project | T-8 | *Consistent.* The project's medium- and heavy-duty vehicles (e.g., delivery trucks) could take advantage of the vehicle hybridization action, which would reduce GHG emissions through increased fuel efficiency. In addition, the project would not prevent CARB from implementing this measure. |
| Medium and Heavy-Duty GHG Phase 2 | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| High-Speed Rail | T-9 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Transportation Electrification | 2022 Appendix D | *Consistent.* The project would include EV charging requirements within the 2022 Title 24 Standards. |

## Table 27. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Janss Road Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| **VMT Reduction** | | |
| Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer) | 2022 Appendix D | *Consistent.* The project site is located on a previously developed site that would be repurposed for the residential units. |
| Does not result in the loss or conversion of natural and working lands | 2022 Appendix D | *Consistent.* The project site is located on a previously disturbed parcel and would not convert natural or working lands. |
| Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre), or,<br>Is in proximity to existing transit stops (within a half mile), or<br>Satisfies more detailed and stringent criteria specified in the region's SCS. | 2022 Appendix D | *Consistent.* The project is within 600 feet of a bus stop serving the City and greater Ventura County. |
| Reduces parking requirements by:<br>Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or Providing residential parking supply at a ratio of less than one parking space per dwelling unit; or<br>For multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit. | 2022 Appendix D | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 27. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Janss Road Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| At least 20 percent of units included are affordable to lower-income residents | 2022 Appendix D | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Results in no net loss of existing affordable units | 2022 Appendix D | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking | 2022 Appendix D | *Inconsistent.* Natural gas infrastructure exists at the site from the previous development. The project would use natural gas in accordance with applicable Title 24 standards at the time of construction. |
| **Electricity and Natural Gas Sector** | | |
| Energy Efficiency Measures (Electricity) | E-1 | *Consistent.* The project would comply with current Title 24, Part 6, of the California Code of Regulations energy efficiency standards for electrical appliances and other devices at the time of building construction. |
| Energy Efficiency (Natural Gas) | CR-1 | *Consistent.* The project would use natural gas in accordance with applicable Title 24 standards at the time of construction. |
| Solar Water Heating (California Solar Initiative Thermal Program) | CR-2 | *Not applicable.* The project would not prevent CARB from implementing this measure. |
| Combined Heat and Power | E-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Renewable Portfolios Standard (33% by 2020) | E-3 | *Consistent.* While the project would support this goal, the 2020 goal has passed and would no longer apply. |
| Renewable Portfolios Standard (50% by 2050) | Recommended | *Consistent.* The project would purchase electricity from SCE who is required to meet the goals within the RPS. |
| Senate Bill 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs | E-4 | *Not applicable.* The project would not prevent CARB from implementing this measure. |
| **Water Sector** | | |
| Water Use Efficiency | W-1 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |

## Table 27. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Janss Road Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| Water Recycling | W-2 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Water System Energy Efficiency | W-3 | *Not applicable.* This is applicable for the transmission and treatment of water, but it is not applicable for the project. |
| Reuse Urban Runoff | W-4 | *Not applicable.* The reuse of urban water on site was determined to not be feasible. The project would not prevent CARB from implementing this measure. |
| Renewable Energy Production | W-5 | *Not applicable.* Applicable for wastewater treatment systems. Not applicable for the project. |
| **Green Buildings** | | |
| State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings) | GB-1 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings) | GB-2 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings) | GB-3 | *Consistent.* The project would be built in accordance with Title 11 CALGreen standards in place at the time building permits are obtained. |
| Greening Existing Buildings (Greening Existing Homes and Commercial Buildings) | GB-4 | *Not applicable.* The proposed project would not prevent CARB from implementing this measure. |
| **Industry Sector** | | |
| Energy Efficiency and Co-Benefits Audits for Large Industrial Sources | I-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Oil and Gas Extraction GHG Emission Reduction | I-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Reduce GHG Emissions by 20% in Oil Refinery Sector | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| GHG Emissions Reduction from Natural Gas Transmission and Distribution | I-3 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Refinery Flare Recovery Process Improvements | I-4 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 27. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Janss Road Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks | I-5 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **Recycling and Waste Management Sector** | | |
| Landfill Methane Control Measure | RW-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Increasing the Efficiency of Landfill Methane Capture | RW-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Mandatory Commercial Recycling | RW-3 | *Consistent.* During both construction and operation of the project, the project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended. During construction, all wastes would be recycled to the maximum extent possible. |
| Increase Production and Markets for Compost and Other Organics | RW-4 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Anaerobic/Aerobic Digestion | RW-5 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Extended Producer Responsibility | RW-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Environmentally Preferable Purchasing | RW-7 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **Forests Sector** | | |
| Sustainable Forest Target | F-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **High Global Warming Potential Gases Sector** | | |
| Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing | H-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| $SF_6$ Limits in Non-Utility and Non-Semiconductor Applications | H-2 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

## Table 27. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies – Janss Road Site

| Scoping Plan Measure | Measure Number | Project Consistency |
|---|---|---|
| Reduction of Perfluorocarbons in Semiconductor Manufacturing | H-3 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Limit High Global Warming Potential Use in Consumer Products | H-4 | *Consistent.* The project's residents would use consumer products that would comply with the regulations that are in effect at the time of manufacture. |
| Air Conditioning Refrigerant Leak Test During Vehicle Smog Check | H-5 | *Consistent.* Residents of the project would conduct air conditioning refrigerant leak tests during periodic vehicle smog checks. |
| Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program | H-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration | H-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| $SF_6$ Leak Reduction Gas Insulated Switchgear | H-6 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| 40% reduction in methane and hydrofluorocarbon emissions | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| 50% reduction in black carbon emissions | Recommended | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |
| **Agriculture Sector** | | |
| Methane Capture at Large Dairies | A-1 | *Not applicable.* This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure. |

**Sources:** CARB 2008, 2017b, 2022.
**Notes:** GHG = greenhouse gas; CARB = California Air Resources Board; EV = electric vehicle; SCE = Southern California Edison; RPS = Renewable Portfolio Standard; CALGreen = California Green Building Standards Code; $SF_6$ = sulfur hexafluoride.

Based on the analysis in Table 27, the Janss Road Site would be consistent with the applicable strategies and measures in the Scoping Plan.

### Project Consistency with Southern California Association of Government's Regional Transportation Plan/Sustainable Communities Strategy

The SCAG 2020–2045 RTP/SCS is a regional growth management strategy that targets per-capita GHG reduction from passenger vehicles and light trucks in the Southern California region pursuant to SB 375. In addition to demonstrating the region's ability to attain the GHG emission-reduction targets set forth by CARB, the 2020–2045 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2020–2045 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use.

The following strategies are intended to be supportive of implementing the 2020–2045 RTP/SCS and reducing GHGs: focus growth near destinations and mobility options, promote diverse housing choices, leverage technology innovations, support implementation of sustainability policies, and promote a green region. The strategies that pertain to SCAG's support of local jurisdiction sustainability efforts would not apply to the project because those are strategies that are taken by SCAG to work with local jurisdictions to implement SCAG's goals and policies (SCAG 2020). Compliance with the remaining applicable strategies is presented below.

- **Focus Growth Near Destinations and Mobility Options.** The Janss Road Site would facilitate the development of residential units located in close proximity to existing mass transit and other office and medical support buildings.
- **Leverage Technology Innovations.** The Janss Road Site would comply with this strategy of the 2020–2045 RTP/SCS because it would be consistent with the County's General Plan policies and would be required to comply with the 2022 Title 24 Standards and 2022 CALGreen at a minimum, through energy-efficient design and support of low emission technologies for transportation, such as alternative fuel vehicles to reduce per-capita GHG emissions.

In addition to the above applicable SCAG 2020–2045 RTP/SCS strategy analysis, Table 28 provides a detailed analysis of applicable RTP/SCS policies.

## Table 28. Project Consistency with Applicable Goals of SCAG's 2020-2045 RTP/SCS – Janss Road Site

| Goal | Would the Project conflict? |
|---|---|
| Improve mobility, accessibility, reliability, and travel safety for people and goods. | **No Conflict.** The project includes the development of residences on a previously developed site. The project would not inhibit SCAG from improving mobility for people or goods in the region. |
| Enhance the preservation, security, and resilience of the regional transportation system. | **No Conflict.** The project includes the development of residences on a previously developed site. The proximity of the project site to various transportation modes would support the region's transportation investment and the sustainability of the regional transportation system in support of this goal. The project would not inhibit SCAG from preserving or securing the regional transportation system. |

## Table 28. Project Consistency with Applicable Goals of SCAG's 2020–2045 RTP/SCS – Janss Road Site

| Goal | Would the Project conflict? |
|---|---|
| Increase person and goods movement and travel choices within the transportation system. | **No Conflict.** The project is located in close proximity to U.S. 101, a high-quality transportation corridor, as well as existing bus infrastructure. These project characteristics would not conflict with the goal to increase the person and goods movement and travel choices within the transportation system. |
| Reduce greenhouse gas emissions and improve air quality. | **No Conflict.** The project would meet or exceed the applicable requirements of the Title 24 Building Energy Efficiency Standards and CALGreen or applicable version at the time of building permit issuance. Based on the above, the project's design and characteristics would serve to reduce GHG emissions and improve air quality, in support of this goal. |
| Support healthy and equitable communities. | **No Conflict.** The project would provide additional housing in close proximity to existing employment and bus infrastructure. The project would support SCAG's promotion of healthy and equitable communities. |
| Adapt to changing climate and support an integrated regional development pattern and transportation network. | **No Conflict.** See discussion above regarding the project's location near U.S. 101 and existing bus infrastructure. The project's development would support an integrated regional development pattern and transportation network which would in turn serve to reduce GHG emissions in support of this goal. |
| Leverage new transportation technologies and data-driven solutions that result in more efficient travel. | **No Conflict.** This goal pertains to SCAG leveraging new transportation technologies and data-driven solutions that result in more efficient travel. The project would not adversely affect SCAG's ability to develop more efficient travel consistent with this goal. |
| Encourage development of diverse housing types in areas that are supported by multiple transportation options. | **Consistent.** The project includes development of residences in close proximity to public transportation. |
| Promote conservation of natural and agricultural lands and restoration of habitats. | **No Conflict.** The project would be developed on an existing developed site. As such, no natural or agricultural lands would be converted as part of the project. |

**Note**: SCAG = Southern California Association of Governments; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; CALGreen = California Green Building Standards Code; GHG = greenhouse gas.

As discussed in Table 28, the Janss Road Site would not conflict with the 2020–2045 RTP/SCS goals and benefits intended to improve mobility and access to diverse destinations and reduce vehicular demand and associated emissions.

Because the Janss Road Site would comply with the applicable GHG reduction strategies and policies outlined in the 2020–2045 RTP/SCS, impacts related to consistency with an applicable GHG reduction plan would be less than significant.

## Project Consistency with Senate Bill 32 and Executive Order S-3-05

The Janss Road Site would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32. As discussed in Section 3.2.2, EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the 2030 Scoping Plan, which states (CARB 2017b):

> The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

## Construction Emissions

### Cancer Center Site

Construction of the Cancer Center Site would result in GHG emissions, which are primarily associated with the use of off-road construction equipment, haul trucks, on-road vendor trucks, and worker vehicles.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.4.2.1, Construction. Construction of the project is anticipated to commence in February 2024 and would last approximately 18 months, ending in August 2025. On-site sources of GHG emissions include off-road equipment and off-site sources include vendor trucks and worker vehicles. Table 29 presents construction emissions for the project from on-site and off-site emission sources.

## Table 29. Estimated Annual Construction Greenhouse Gas Emissions – Cancer Center Site

| Year | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| | Metric Tons Per Year | | | |
| 2024 | 205.30 | 0.01 | 0.02 | 210.97 |
| 2025 | 112.47 | 0.00 | 0.01 | 115.19 |
| | | | **Total** | **326.16** |
| | | | **Amortized over 30 years** | **10.87** |

**Notes:** $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent; <0.01 = reported value less than 0.01.
See Appendix A for complete results.
Totals may not add due to rounding.

As shown in Table 29, the estimated total GHG emissions during construction of would be approximately 326 MT $CO_2e$ over the construction period. Estimated construction emissions from the Cancer Center Site amortized over 30 years would be approximately 11 MT $CO_2e$ per year. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

### Janss Road Site

Construction of the Janss Road Site would result in GHG emissions, which are primarily associated with the use of off-road construction equipment, haul trucks, on-road vendor trucks, and worker vehicles.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.4.2.1, Construction. Construction of the project is anticipated to commence in February 2027 and would last approximately 13 months, ending in February 2028. On-site sources of GHG emissions include off-road equipment and off-site sources include vendor trucks and worker vehicles. Table 30 presents construction emissions for the project from on-site and off-site emission sources.

## Table 30. Estimated Annual Construction Greenhouse Gas Emissions – Janss Road Site

| Year | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| | Metric Tons Per Year | | | |
| 2027 | 342.84 | 0.01 | 0.01 | 345.97 |
| 2028 | 27.50 | 0.00 | 0.00 | 27.70 |
| | | | **Total** | **373.67** |
| | | | **Amortized over 30 years** | **12.46** |

**Notes:** $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent; <0.01 = reported value less than 0.01.
See Appendix A for complete results.
Totals may not add due to rounding.

As shown in Table 30, the estimated total GHG emissions during construction of would be approximately 374 MT $CO_2e$ over the construction period. Estimated project-generated construction emissions amortized over 30 years would be approximately 13 MT $CO_2e$ per year. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

### Operational Emissions

#### Cancer Center Site

Operation of the Cancer Center Site would generate GHG emissions through passenger vehicle and delivery truck trips to and from the project site, landscape maintenance equipment operation, solid waste disposal, water use, and on-site septic system. CalEEMod and a spreadsheet model were used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.4.2.2, Operation. The estimated operational project-generated GHG emissions are shown in Table 31.

## Table 31. Estimated Annual Operational Greenhouse Gas Emissions – Cancer Center Site

| Emission Source | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| | Metric Tons Per Year | | | |
| Area | 0.85 | 0.00 | 0.00 | 0.86 |
| Energy | 258.15 | 0.02 | 0.00 | 259.39 |
| Mobile | 2,171.50 | 0.10 | 0.10 | 2,207.20 |
| Refrigerants | 0.00 | 0.00 | 0.00 | 0.25 |
| Solid waste | 56.29 | 5.63 | 0.00 | 196.94 |
| Stationary | 23.23 | < 0.01 | < 0.01 | 23.31 |
| Water supply and wastewater | 10.68 | 0.24 | 0.01 | 18.33 |
| | | | *Amortized 30-Year Construction Emissions* | *10.87* |
| | | | *Carbon Released* | *0.46* |
| | | | *Sequestered Carbon* | *-5.77* |
| | | | **Operation plus Amortized Construction Total** | **2,711.84** |

**Notes:** $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent; < 0.01 = reported emissions less than 0.01.
See Appendix A for complete results.
Totals may not add due to rounding.

As shown in Table 31, estimated annual project-generated GHG emissions would be approximately 2,712 MT $CO_2e$ per year as a result of Cancer Center Site operations and amortized construction. For informational purposed, this would not exceed the SCAQMD screening threshold of 3,000 MT $CO_2e$ per year.

#### Janss Road Site

Operation of the Janss Road Site would generate GHG emissions through passenger vehicle and delivery truck trips to and from the project site, landscape maintenance equipment operation, solid waste disposal, water use, and on-site septic system. CalEEMod and a spreadsheet model were used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.4.2.2, Operation. The estimated operational project-generated GHG emissions are shown in Table 32.

### Table 32. Estimated Annual Operational Greenhouse Gas Emissions – Janss Road Site

| Emission Source | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| | Metric Tons Per Year | | | |
| Area | 0.11 | 0.00 | 0.00 | 0.11 |
| Energy | 29.70 | 0.00 | 0.00 | 29.81 |
| Mobile | 96.48 | 0.00 | 0.00 | 98.01 |
| Refrigerants | 0.00 | 0.00 | 0.00 | 0.02 |
| Solid waste | 0.64 | 0.06 | 0.00 | 2.25 |
| Water supply and wastewater | 1.86 | 0.01 | 0.00 | 2.23 |
| *Amortized 30-Year Construction Emissions* | | | | *12.46* |
| **Operation plus Amortized Construction Total** | | | | **144.89** |

**Notes:** $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent; < 0.01 = reported emissions less than 0.01.
See Appendix A for complete results.
Totals may not add due to rounding.

As shown in Table 32, estimated annual project-generated GHG emissions would be approximately 145 MT $CO_2e$ per year as a result of the Janss Road Site operations and amortized construction. For informational purposed, this would not exceed the SCAQMD screening threshold of 3,000 MT $CO_2e$ per year.

As the Cancer Center Site and the Janss Road Site will be operational at the same time, it is appropriate to show the combined operational emissions including amortized construction from both sites. Table 33 presents the combined emissions.

### Table 33. Estimated Annual Operational Greenhouse Gas Emissions – Cancer Center Site and Janss Road Site

| Emission Source | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| | Metric Tons Per Year | | | |
| Area | 0.96 | 0.00 | 0.00 | 0.97 |
| Energy | 287.85 | 0.02 | 0.00 | 289.20 |
| Mobile | 2,267.98 | 0.10 | 0.10 | 2,305.21 |
| Refrigerants | 0.00 | 0.00 | 0.00 | 0.27 |
| Solid waste | 56.93 | 5.69 | 0.00 | 199.19 |
| Stationary | 23.23 | <0.01 | <0.01 | 23.31 |
| Water supply and wastewater | 12.54 | 0.25 | 0.01 | 20.56 |
| *Amortized 30-Year Construction Emissions* | | | | *23.33* |
| *Carbon Released* | | | | *0.46* |
| *Sequestered Carbon* | | | | *-5.77* |
| **Operation plus Amortized Construction Total** | | | | **2,856.73** |

**Notes:** $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent; < 0.01 = reported emissions

less than 0.01.
See Appendix A for complete results.
Totals may not add due to rounding.

As shown in Table 33, estimated annual project-generated GHG emissions would be approximately 2,857 MT $CO_2e$ per year as a result of the Cancer Center Site and Janss Road Site operations and amortized construction. For informational purposed, this would not exceed the SCAQMD screening threshold of 3,000 MT $CO_2e$ per year.

### Conclusion

The Cancer Center Site and Janss Road Site are consistent with the Scoping Plan, which promotes economic growth while achieving greater energy efficiency. The Cancer Center Site and Janss Road Site would also be consistent with SCAG's 2020–2045 RTP/SCS, SB 32, and EO S-3-05 by being consistent with GHG reduction strategies and policies, increasing the use of renewable energy, and implementing energy efficiency strategies. The Cancer Center Site and Janss Road Site would not conflict with any plans adopted with the purpose of reducing GHG emissions; therefore, the Cancer Center Site and Janss Road Site's impacts with respect to GHG emissions would be **less than significant.**

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# 5 List of Preparers

Adam Poll, Senior Air Quality Specialist

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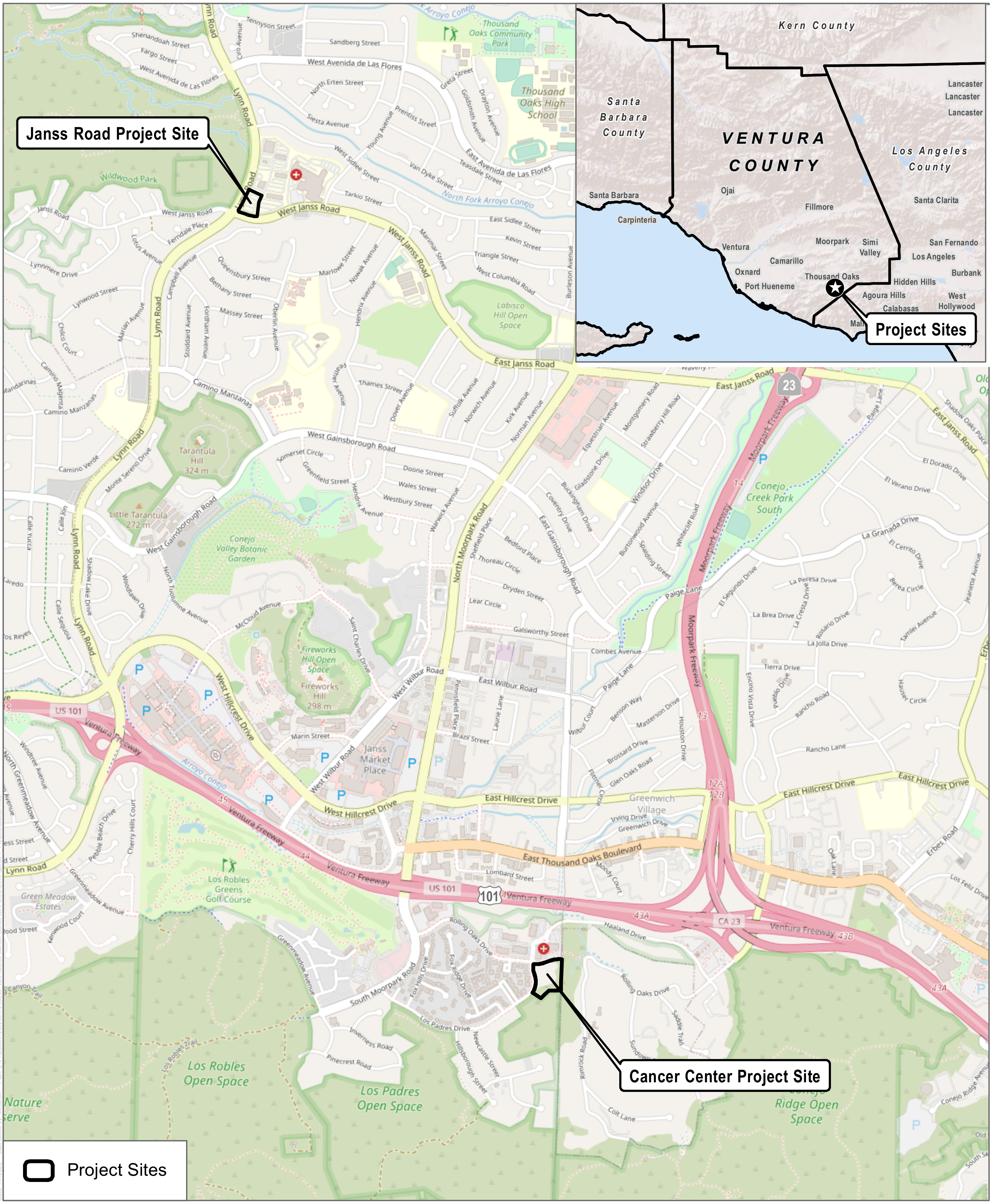


SOURCE: Open Street Map, City of Thousand Oaks

DUDEK

0 500 1,000
Feet

**FIGURE 1**
## Project Location
Los Robles Comprehensive Cancer Center Project/ 355 W Janss Road
No Net Loss General Plan Amendment and Zone Change Project

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# Appendix A
CalEEMod Output Files

# Table of Contents

# Los Robles Comprehensive Cancer Center Project Detailed Report

## Table of Contents

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Los Robles Comprehensive Cancer Center Project |
| Construction Start Date | 2/1/2024 |
| Operational Year | 2025 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.70 |
| Precipitation (days) | 22.6 |
| Location | 34.174010310321236, -118.86945042284599 |
| County | Ventura |
| City | Thousand Oaks |
| Air District | Ventura County APCD |
| Air Basin | South Central Coast |
| TAZ | 3502 |
| EDFZ | 8 |
| Electric Utility | Southern California Edison |
| Gas Utility | Southern California Gas |
| App Version | 2022.1.1.19 |

## 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 |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Medical Office Building | 58.4 | 1000sqft | 1.34 | 58,412 | 59,005 | — | — | — |
| Parking Lot | 233 | Space | 2.10 | 0.00 | 0.00 | — | — | — |

## 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. | 0.59 | 2.85 | 3.98 | 17.0 | 0.03 | 0.07 | 3.47 | 3.54 | 0.07 | 1.55 | 1.61 | — | 4,841 | 4,841 | 0.16 | 0.36 | 8.24 | 4,961 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.31 | 2.58 | 3.08 | 7.99 | 0.02 | 0.04 | 0.96 | 0.98 | 0.04 | 0.20 | 0.22 | — | 2,429 | 2,429 | 0.09 | 0.23 | 0.11 | 2,476 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.16 | 0.82 | 1.36 | 3.68 | 0.01 | 0.02 | 0.49 | 0.51 | 0.02 | 0.14 | 0.15 | — | 1,240 | 1,240 | 0.04 | 0.11 | 1.10 | 1,274 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.03 | 0.15 | 0.25 | 0.67 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.03 | 0.03 | — | 205 | 205 | 0.01 | 0.02 | 0.18 | 211 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.59 | 0.51 | 3.98 | 17.0 | 0.03 | 0.07 | 3.47 | 3.54 | 0.07 | 1.55 | 1.61 | — | 4,841 | 4,841 | 0.16 | 0.36 | 8.24 | 4,961 |
| 2025 | 0.38 | 2.85 | 1.71 | 8.32 | 0.01 | 0.02 | 1.01 | 1.03 | 0.02 | 0.24 | 0.26 | — | 1,983 | 1,983 | 0.07 | 0.13 | 5.20 | 2,025 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.31 | 2.58 | 3.08 | 7.99 | 0.02 | 0.04 | 0.96 | 0.98 | 0.04 | 0.20 | 0.22 | — | 2,429 | 2,429 | 0.09 | 0.23 | 0.11 | 2,476 |
| 2025 | 0.13 | 2.58 | 0.61 | 1.52 | < 0.005 | 0.01 | 0.42 | 0.42 | 0.01 | 0.10 | 0.11 | — | 683 | 683 | 0.02 | 0.07 | 0.06 | 704 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.16 | 0.25 | 1.36 | 3.68 | 0.01 | 0.02 | 0.49 | 0.51 | 0.02 | 0.14 | 0.15 | — | 1,240 | 1,240 | 0.04 | 0.11 | 1.10 | 1,274 |
| 2025 | 0.13 | 0.82 | 0.55 | 2.30 | < 0.005 | 0.01 | 0.36 | 0.36 | 0.01 | 0.09 | 0.09 | — | 679 | 679 | 0.03 | 0.05 | 0.83 | 696 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.03 | 0.05 | 0.25 | 0.67 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.03 | 0.03 | — | 205 | 205 | 0.01 | 0.02 | 0.18 | 211 |
| 2025 | 0.02 | 0.15 | 0.10 | 0.42 | < 0.005 | < 0.005 | 0.06 | 0.07 | < 0.005 | 0.02 | 0.02 | — | 112 | 112 | < 0.005 | 0.01 | 0.14 | 115 |

## 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. | 12.2 | 12.5 | 13.2 | 79.8 | 0.18 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.25 | 354 | 20,013 | 20,367 | 36.3 | 0.80 | 74.0 | 21,587 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 11.6 | 12.0 | 14.2 | 76.1 | 0.17 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.24 | 354 | 19,389 | 19,743 | 36.4 | 0.85 | 3.37 | 20,910 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 8.38 | 9.03 | 8.53 | 56.5 | 0.13 | 0.13 | 12.0 | 12.1 | 0.13 | 3.03 | 3.16 | 354 | 14,836 | 15,190 | 36.2 | 0.64 | 25.1 | 16,311 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.53 | 1.65 | 1.56 | 10.3 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.58 | 58.6 | 2,456 | 2,515 | 5.99 | 0.11 | 4.16 | 2,700 |

## 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 | 10.6 | 9.77 | 8.33 | 74.3 | 0.18 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,915 | 17,915 | 0.76 | 0.74 | 72.5 | 18,229 |
| Area | 0.45 | 1.76 | 0.02 | 2.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.5 |
| Energy | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,559 | 1,559 | 0.14 | 0.01 | — | 1,567 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Stationary | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Vegetation | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Total | 12.2 | 12.5 | 13.2 | 79.8 | 0.18 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.25 | 354 | 20,013 | 20,367 | 36.3 | 0.80 | 74.0 | 21,587 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 10.4 | 9.61 | 9.31 | 73.2 | 0.17 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,302 | 17,302 | 0.82 | 0.80 | 1.88 | 17,562 |
| Area | — | 1.34 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,559 | 1,559 | 0.14 | 0.01 | — | 1,567 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Stationary | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Vegetation | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Total | 11.6 | 12.0 | 14.2 | 76.1 | 0.17 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.24 | 354 | 19,389 | 19,743 | 36.4 | 0.85 | 3.37 | 20,910 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 7.81 | 7.20 | 6.88 | 54.2 | 0.13 | 0.10 | 12.0 | 12.1 | 0.09 | 3.03 | 3.13 | — | 13,116 | 13,116 | 0.60 | 0.59 | 23.6 | 13,331 |
| Area | 0.22 | 1.54 | 0.01 | 1.25 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 5.15 | 5.15 | < 0.005 | < 0.005 | — | 5.17 |
| Energy | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,559 | 1,559 | 0.14 | 0.01 | — | 1,567 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Stationary | 0.30 | 0.27 | 1.23 | 0.70 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 140 | 140 | 0.01 | < 0.005 | — | 141 |
| Vegetation | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Total | 8.38 | 9.03 | 8.53 | 56.5 | 0.13 | 0.13 | 12.0 | 12.1 | 0.13 | 3.03 | 3.16 | 354 | 14,836 | 15,190 | 36.2 | 0.64 | 25.1 | 16,311 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.42 | 1.31 | 1.26 | 9.89 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.57 | — | 2,172 | 2,172 | 0.10 | 0.10 | 3.91 | 2,207 |
| Area | 0.04 | 0.28 | < 0.005 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.85 | 0.85 | < 0.005 | < 0.005 | — | 0.86 |
| Energy | 0.01 | < 0.005 | 0.08 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 258 | 258 | 0.02 | < 0.005 | — | 259 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 2.31 | 8.37 | 10.7 | 0.24 | 0.01 | — | 18.3 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 56.3 | 0.00 | 56.3 | 5.63 | 0.00 | — | 197 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stationar | 0.05 | 0.05 | 0.22 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 23.2 | 23.2 | < 0.005 | < 0.005 | — | 23.3 |
| Vegetation | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -5.77 | -5.77 | — | — | — | -5.77 |
| Total | 1.53 | 1.65 | 1.56 | 10.3 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.58 | 58.6 | 2,456 | 2,515 | 5.99 | 0.11 | 4.16 | 2,700 |

# 3. Construction Emissions Details

## 3.1. Demolition-Excavators (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.66 | 0.99 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 142 | 142 | 0.01 | < 0.005 | — | 142 |
| Demolition | — | — | — | — | — | — | 0.46 | 0.46 | — | 0.07 | 0.07 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 5.82 | 5.82 | < 0.005 | < 0.005 | — | 5.84 |
| Demolition | — | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.96 | 0.96 | < 0.005 | < 0.005 | — | 0.97 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.07 | 0.09 | 0.98 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 209 | 209 | 0.01 | 0.01 | 0.02 | 211 |
| Vendor | 0.01 | < 0.005 | 0.17 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 125 | 125 | < 0.005 | 0.02 | 0.01 | 131 |
| Hauling | 0.04 | 0.02 | 1.39 | 0.32 | 0.01 | 0.01 | 0.25 | 0.27 | 0.01 | 0.07 | 0.08 | — | 990 | 990 | 0.02 | 0.16 | 0.06 | 1,037 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 8.63 | 8.63 | < 0.005 | < 0.005 | 0.02 | 8.76 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.15 | 5.15 | < 0.005 | < 0.005 | 0.01 | 5.39 |
| Hauling | < 0.005 | < 0.005 | 0.06 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 40.7 | 40.7 | < 0.005 | 0.01 | 0.04 | 42.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.43 | 1.43 | < 0.005 | < 0.005 | < 0.005 | 1.45 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.85 | 0.85 | < 0.005 | < 0.005 | < 0.005 | 0.89 |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.73 | 6.73 | < 0.005 | < 0.005 | 0.01 | 7.06 |

## 3.3. Demolition-Dozers (2024) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.13 | 0.67 | 6.73 | 0.01 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,378 | 1,378 | 0.06 | 0.01 | — | 1,383 |
| Demolition | — | — | — | — | — | — | 0.50 | 0.50 | — | 0.08 | 0.08 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.26 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.9 | 52.9 | < 0.005 | < 0.005 | — | 53.0 |
| Demolition | — | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.75 | 8.75 | < 0.005 | < 0.005 | — | 8.78 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.09 | 0.07 | 0.09 | 0.98 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 209 | 209 | 0.01 | 0.01 | 0.02 | 211 |
| Vendor | 0.01 | < 0.005 | 0.17 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 125 | 125 | < 0.005 | 0.02 | 0.01 | 131 |
| Hauling | 0.03 | 0.01 | 1.00 | 0.23 | < 0.005 | 0.01 | 0.18 | 0.19 | 0.01 | 0.05 | 0.06 | — | 707 | 707 | 0.02 | 0.11 | 0.04 | 741 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 8.06 | 8.06 | < 0.005 | < 0.005 | 0.02 | 8.17 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.81 | 4.81 | < 0.005 | < 0.005 | 0.01 | 5.03 |
| Hauling | < 0.005 | < 0.005 | 0.04 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 27.1 | 27.1 | < 0.005 | < 0.005 | 0.03 | 28.4 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.33 | 1.33 | < 0.005 | < 0.005 | < 0.005 | 1.35 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.80 | 0.80 | < 0.005 | < 0.005 | < 0.005 | 0.83 |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.49 | 4.49 | < 0.005 | < 0.005 | < 0.005 | 4.71 |

## 3.5. Grading-Excavators (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.66 | 0.99 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 142 | 142 | 0.01 | < 0.005 | — | 142 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.02 | 0.02 | 0.66 | 0.99 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 142 | 142 | 0.01 | < 0.005 | — | 142 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.05 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 11.6 | 11.6 | < 0.005 | < 0.005 | — | 11.7 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.93 | 1.93 | < 0.005 | < 0.005 | — | 1.93 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.08 | 1.08 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.94 | 222 |
| Vendor | 0.01 | < 0.005 | 0.16 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 125 | 125 | < 0.005 | 0.02 | 0.35 | 131 |
| Hauling | 0.06 | 0.03 | 1.73 | 0.40 | 0.01 | 0.02 | 0.33 | 0.34 | 0.02 | 0.09 | 0.11 | — | 1,272 | 1,272 | 0.03 | 0.20 | 2.84 | 1,336 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.07 | 0.09 | 0.98 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 209 | 209 | 0.01 | 0.01 | 0.02 | 211 |
| Vendor | 0.01 | < 0.005 | 0.17 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 125 | 125 | < 0.005 | 0.02 | 0.01 | 131 |
| Hauling | 0.06 | 0.03 | 1.79 | 0.41 | 0.01 | 0.02 | 0.33 | 0.34 | 0.02 | 0.09 | 0.11 | — | 1,272 | 1,272 | 0.03 | 0.20 | 0.07 | 1,334 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.08 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | < 0.005 | < 0.005 | — | 17.3 | 17.3 | < 0.005 | < 0.005 | 0.03 | 17.5 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 10.3 | 10.3 | < 0.005 | < 0.005 | 0.01 | 10.8 |
| Hauling | < 0.005 | < 0.005 | 0.15 | 0.03 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 105 | 105 | < 0.005 | 0.02 | 0.10 | 110 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.86 | 2.86 | < 0.005 | < 0.005 | 0.01 | 2.90 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.71 | 1.71 | < 0.005 | < 0.005 | < 0.005 | 1.78 |
| Hauling | < 0.005 | < 0.005 | 0.03 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 17.3 | 17.3 | < 0.005 | < 0.005 | 0.02 | 18.2 |

## 3.7. Grading-Dozers (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.13 | 0.67 | 6.73 | 0.01 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,378 | 1,378 | 0.06 | 0.01 | — | 1,383 |
| Dust From Material Movement | — | — | — | — | — | — | 2.56 | 2.56 | — | 1.31 | 1.31 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.18 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 37.8 | 37.8 | < 0.005 | < 0.005 | — | 37.9 |
| Dust From Material Movement | — | — | — | — | — | — | 0.07 | 0.07 | — | 0.04 | 0.04 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 6.25 | 6.25 | < 0.005 | < 0.005 | — | 6.27 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.08 | 1.08 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.94 | 222 |
| Vendor | 0.01 | < 0.005 | 0.16 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 125 | 125 | < 0.005 | 0.02 | 0.35 | 131 |
| Hauling | 0.06 | 0.03 | 1.73 | 0.40 | 0.01 | 0.02 | 0.33 | 0.34 | 0.02 | 0.09 | 0.11 | — | 1,272 | 1,272 | 0.03 | 0.20 | 2.84 | 1,336 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 5.76 | 5.76 | < 0.005 | < 0.005 | 0.01 | 5.84 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.43 | 3.43 | < 0.005 | < 0.005 | < 0.005 | 3.59 |
| Hauling | < 0.005 | < 0.005 | 0.05 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 34.9 | 34.9 | < 0.005 | 0.01 | 0.03 | 36.6 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.95 | 0.95 | < 0.005 | < 0.005 | < 0.005 | 0.97 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.57 | 0.57 | < 0.005 | < 0.005 | < 0.005 | 0.59 |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.77 | 5.77 | < 0.005 | < 0.005 | 0.01 | 6.05 |

## 3.9. Grading-Tractors (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08 | 0.08 | 0.43 | 6.08 | 0.01 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 871 | 871 | 0.04 | 0.01 | — | 874 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.06 | 0.83 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 119 | 119 | < 0.005 | < 0.005 | — | 120 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.15 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 19.8 | 19.8 | < 0.005 | < 0.005 | — | 19.8 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.08 | 1.08 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.94 | 222 |
| Vendor | 0.01 | < 0.005 | 0.16 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 125 | 125 | < 0.005 | 0.02 | 0.35 | 131 |
| Hauling | 0.06 | 0.03 | 1.73 | 0.40 | 0.01 | 0.02 | 0.33 | 0.34 | 0.02 | 0.09 | 0.11 | — | 1,272 | 1,272 | 0.03 | 0.20 | 2.84 | 1,336 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.13 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 28.8 | 28.8 | < 0.005 | < 0.005 | 0.06 | 29.2 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.2 | 17.2 | < 0.005 | < 0.005 | 0.02 | 18.0 |
| Hauling | 0.01 | < 0.005 | 0.25 | 0.06 | < 0.005 | < 0.005 | 0.04 | 0.05 | < 0.005 | 0.01 | 0.01 | — | 174 | 174 | < 0.005 | 0.03 | 0.17 | 183 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.76 | 4.76 | < 0.005 | < 0.005 | 0.01 | 4.83 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.84 | 2.84 | < 0.005 | < 0.005 | < 0.005 | 2.97 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | < 0.005 | < 0.005 | 0.04 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 28.9 | 28.9 | < 0.005 | < 0.005 | 0.03 | 30.3 |

## 3.11. Building Construction-Cranes (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08 | 0.08 | 0.43 | 4.27 | 0.01 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 866 | 866 | 0.04 | 0.01 | — | 869 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 47.5 | 47.5 | < 0.005 | < 0.005 | — | 47.6 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.86 | 7.86 | < 0.005 | < 0.005 | — | 7.89 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 0.10 | 1.35 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 273 | 273 | 0.01 | 0.01 | 1.18 | 277 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.02 | 0.01 | 0.41 | 0.13 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 313 | 313 | 0.01 | 0.05 | 0.87 | 328 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | < 0.005 | 0.01 | 0.07 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 14.4 | 14.4 | < 0.005 | < 0.005 | 0.03 | 14.6 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.2 | 17.2 | < 0.005 | < 0.005 | 0.02 | 18.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.38 | 2.38 | < 0.005 | < 0.005 | < 0.005 | 2.42 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.84 | 2.84 | < 0.005 | < 0.005 | < 0.005 | 2.97 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.13. Building Construction-Forklift (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.15 | 2.14 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 305 | 305 | 0.01 | < 0.005 | — | 306 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 11.7 | 11.7 | < 0.005 | < 0.005 | — | 11.7 |
| 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 | — | 1.94 | 1.94 | < 0.005 | < 0.005 | — | 1.94 |
| 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 | 0.10 | 1.35 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 273 | 273 | 0.01 | 0.01 | 1.18 | 277 |
| Vendor | 0.02 | 0.01 | 0.41 | 0.13 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 313 | 313 | 0.01 | 0.05 | 0.87 | 328 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 10.1 | 10.1 | < 0.005 | < 0.005 | 0.02 | 10.2 |
| Vendor | < 0.005 | < 0.005 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 12.0 | 12.0 | < 0.005 | < 0.005 | 0.01 | 12.6 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.67 | 1.67 | < 0.005 | < 0.005 | < 0.005 | 1.69 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.99 | 1.99 | < 0.005 | < 0.005 | < 0.005 | 2.08 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.15. Building Construction-Tractor (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.12 | 1.77 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 254 | 254 | 0.01 | < 0.005 | — | 255 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.03 | 0.44 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 62.7 | 62.7 | < 0.005 | < 0.005 | — | 62.9 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.4 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 0.10 | 1.35 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 273 | 273 | 0.01 | 0.01 | 1.18 | 277 |
| Vendor | 0.02 | 0.01 | 0.41 | 0.13 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 313 | 313 | 0.01 | 0.05 | 0.87 | 328 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.02 | 0.03 | 0.30 | 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.01 | 0.01 | — | 64.8 | 64.8 | < 0.005 | < 0.005 | 0.13 | 65.7 |
| Vendor | < 0.005 | < 0.005 | 0.10 | 0.03 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 77.2 | 77.2 | < 0.005 | 0.01 | 0.09 | 80.8 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.01 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 10.7 | 10.7 | < 0.005 | < 0.005 | 0.02 | 10.9 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 12.8 | 12.8 | < 0.005 | < 0.005 | 0.02 | 13.4 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.17. Building Construction-Welders (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.07 | 0.07 | 2.01 | 2.99 | 0.01 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 415 | 415 | 0.02 | < 0.005 | — | 416 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.07 | 0.07 | 2.01 | 2.99 | 0.01 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 415 | 415 | 0.02 | < 0.005 | — | 416 |
| 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 | 0.01 | 0.01 | 0.17 | 0.25 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 34.1 | 34.1 | < 0.005 | < 0.005 | — | 34.2 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 5.65 | 5.65 | < 0.005 | < 0.005 | — | 5.67 |
| 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 | 0.10 | 1.35 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 273 | 273 | 0.01 | 0.01 | 1.18 | 277 |
| Vendor | 0.02 | 0.01 | 0.41 | 0.13 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 313 | 313 | 0.01 | 0.05 | 0.87 | 328 |
| 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 | 0.11 | 0.09 | 0.12 | 1.22 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 261 | 261 | 0.01 | 0.01 | 0.03 | 264 |
| Vendor | 0.01 | 0.01 | 0.42 | 0.13 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 313 | 313 | 0.01 | 0.05 | 0.02 | 327 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.10 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | < 0.005 | < 0.005 | — | 21.6 | 21.6 | < 0.005 | < 0.005 | 0.04 | 21.9 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 25.7 | 25.7 | < 0.005 | < 0.005 | 0.03 | 26.9 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.57 | 3.57 | < 0.005 | < 0.005 | 0.01 | 3.62 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.26 | 4.26 | < 0.005 | < 0.005 | 0.01 | 4.46 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.19. Building Construction-No Equipment (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.11 | 0.09 | 0.12 | 1.22 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 261 | 261 | 0.01 | 0.01 | 0.03 | 264 |
| Vendor | 0.01 | 0.01 | 0.42 | 0.13 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 313 | 313 | 0.01 | 0.05 | 0.02 | 327 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.23 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.01 | 0.01 | — | 48.7 | 48.7 | < 0.005 | < 0.005 | 0.09 | 49.4 |
| Vendor | < 0.005 | < 0.005 | 0.08 | 0.02 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 58.1 | 58.1 | < 0.005 | 0.01 | 0.07 | 60.8 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 8.07 | 8.07 | < 0.005 | < 0.005 | 0.02 | 8.18 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 9.62 | 9.62 | < 0.005 | < 0.005 | 0.01 | 10.1 |
| 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 |

## 3.21. Building Construction-No Equipment (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.10 | 0.09 | 0.09 | 1.26 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 267 | 267 | 0.01 | 0.01 | 1.08 | 272 |
| Vendor | 0.02 | 0.01 | 0.38 | 0.12 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 308 | 308 | 0.01 | 0.05 | 0.87 | 323 |
| 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 | 0.08 | 0.11 | 1.14 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 256 | 256 | 0.01 | 0.01 | 0.03 | 259 |
| Vendor | 0.01 | 0.01 | 0.40 | 0.12 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | — | 308 | 308 | 0.01 | 0.05 | 0.02 | 322 |
| 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 | 0.06 | 0.65 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 146 | 146 | 0.01 | 0.01 | 0.26 | 148 |
| Vendor | 0.01 | < 0.005 | 0.23 | 0.07 | < 0.005 | < 0.005 | 0.05 | 0.05 | < 0.005 | 0.01 | 0.02 | — | 174 | 174 | < 0.005 | 0.03 | 0.21 | 183 |
| 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 | 0.12 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 24.1 | 24.1 | < 0.005 | < 0.005 | 0.04 | 24.5 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 28.9 | 28.9 | < 0.005 | < 0.005 | 0.04 | 30.2 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.23. Paving-Tractors (2025) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.03 | 0.03 | 0.14 | 2.03 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 290 | 290 | 0.01 | < 0.005 | — | 291 |
| Paving | — | 0.05 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.04 | 0.63 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 89.9 | 89.9 | < 0.005 | < 0.005 | — | 90.2 |
| Paving | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 14.9 | 14.9 | < 0.005 | < 0.005 | — | 14.9 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.10 | 0.09 | 0.09 | 1.26 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 267 | 267 | 0.01 | 0.01 | 1.08 | 272 |
| Vendor | 0.01 | < 0.005 | 0.15 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 123 | 123 | < 0.005 | 0.02 | 0.35 | 129 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.03 | 0.03 | 0.03 | 0.35 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 79.7 | 79.7 | < 0.005 | < 0.005 | 0.14 | 80.8 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 38.2 | 38.2 | < 0.005 | 0.01 | 0.05 | 40.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | < 0.005 | 0.01 | 0.06 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 13.2 | 13.2 | < 0.005 | < 0.005 | 0.02 | 13.4 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.32 | 6.32 | < 0.005 | < 0.005 | 0.01 | 6.62 |
| 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 |

## 3.25. Paving-Pavers (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.08 | 1.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 158 | 158 | 0.01 | < 0.005 | — | 159 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.6 | 15.6 | < 0.005 | < 0.005 | — | 15.6 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.58 | 2.58 | < 0.005 | < 0.005 | — | 2.59 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.10 | 0.09 | 0.09 | 1.26 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 267 | 267 | 0.01 | 0.01 | 1.08 | 272 |
| Vendor | 0.01 | < 0.005 | 0.15 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 123 | 123 | < 0.005 | 0.02 | 0.35 | 129 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.11 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 25.4 | 25.4 | < 0.005 | < 0.005 | 0.05 | 25.8 |
| Vendor | < 0.005 | < 0.005 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 12.2 | 12.2 | < 0.005 | < 0.005 | 0.01 | 12.7 |
| 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 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.20 | 4.20 | < 0.005 | < 0.005 | 0.01 | 4.26 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.01 | 2.01 | < 0.005 | < 0.005 | < 0.005 | 2.11 |
| 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 |

## 3.27. Paving-Paving Equipment/Rollers (2025) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.04 | 0.04 | 0.61 | 2.31 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 330 | 330 | 0.01 | < 0.005 | — | 331 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.05 | 0.19 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 27.1 | 27.1 | < 0.005 | < 0.005 | — | 27.2 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.49 | 4.49 | < 0.005 | < 0.005 | — | 4.50 |
| 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 | 0.10 | 0.09 | 0.09 | 1.26 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 267 | 267 | 0.01 | 0.01 | 1.08 | 272 |
| Vendor | 0.01 | < 0.005 | 0.15 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 123 | 123 | < 0.005 | 0.02 | 0.35 | 129 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.09 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | < 0.005 | < 0.005 | — | 21.2 | 21.2 | < 0.005 | < 0.005 | 0.04 | 21.5 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 10.1 | 10.1 | < 0.005 | < 0.005 | 0.01 | 10.6 |
| 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 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.50 | 3.50 | < 0.005 | < 0.005 | 0.01 | 3.55 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.68 | 1.68 | < 0.005 | < 0.005 | < 0.005 | 1.76 |
| 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 |

## 3.29. Architectural Coating (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 2.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.12 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.24 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.01 | 0.01 | — | 52.1 | 52.1 | < 0.005 | < 0.005 | 0.01 | 52.8 |
| Vendor | < 0.005 | < 0.005 | 0.08 | 0.03 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 62.7 | 62.7 | < 0.005 | 0.01 | < 0.005 | 65.5 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | — | 2.59 | 2.59 | < 0.005 | < 0.005 | 0.01 | 2.63 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.09 | 3.09 | < 0.005 | < 0.005 | < 0.005 | 3.23 |
| 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 | — | 0.43 | 0.43 | < 0.005 | < 0.005 | < 0.005 | 0.43 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.51 | 0.51 | < 0.005 | < 0.005 | < 0.005 | 0.54 |
| 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 |

## 3.31. Architectural Coating (2025) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | — | 2.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 2.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.69 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.13 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.25 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.01 | 0.01 | — | 53.5 | 53.5 | < 0.005 | < 0.005 | 0.22 | 54.3 |
| Vendor | < 0.005 | < 0.005 | 0.08 | 0.02 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 61.6 | 61.6 | < 0.005 | 0.01 | 0.17 | 64.6 |
| 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 | 0.02 | 0.02 | 0.02 | 0.23 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.01 | 0.01 | — | 51.1 | 51.1 | < 0.005 | < 0.005 | 0.01 | 51.8 |
| Vendor | < 0.005 | < 0.005 | 0.08 | 0.02 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 61.7 | 61.7 | < 0.005 | 0.01 | < 0.005 | 64.5 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | < 0.005 | 0.01 | 0.06 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 14.4 | 14.4 | < 0.005 | < 0.005 | 0.03 | 14.6 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.2 | 17.2 | < 0.005 | < 0.005 | 0.02 | 18.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.38 | 2.38 | < 0.005 | < 0.005 | < 0.005 | 2.42 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.85 | 2.85 | < 0.005 | < 0.005 | < 0.005 | 2.99 |
| 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 10.6 | 9.77 | 8.33 | 74.3 | 0.18 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,915 | 17,915 | 0.76 | 0.74 | 72.5 | 18,229 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| Total | 10.6 | 9.77 | 8.33 | 74.3 | 0.18 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,915 | 17,915 | 0.76 | 0.74 | 72.5 | 18,229 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 10.4 | 9.61 | 9.31 | 73.2 | 0.17 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,302 | 17,302 | 0.82 | 0.80 | 1.88 | 17,562 |
| 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 |
| Total | 10.4 | 9.61 | 9.31 | 73.2 | 0.17 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,302 | 17,302 | 0.82 | 0.80 | 1.88 | 17,562 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 1.42 | 1.31 | 1.26 | 9.89 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.57 | — | 2,172 | 2,172 | 0.10 | 0.10 | 3.91 | 2,207 |
| 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 |
| Total | 1.42 | 1.31 | 1.26 | 9.89 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.57 | — | 2,172 | 2,172 | 0.10 | 0.10 | 3.91 | 2,207 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 986 | 986 | 0.09 | 0.01 | — | 991 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 76.4 | 76.4 | 0.01 | < 0.005 | — | 76.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,062 | 1,062 | 0.10 | 0.01 | — | 1,068 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 986 | 986 | 0.09 | 0.01 | — | 991 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 76.4 | 76.4 | 0.01 | < 0.005 | — | 76.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,062 | 1,062 | 0.10 | 0.01 | — | 1,068 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 163 | 163 | 0.02 | < 0.005 | — | 164 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 12.7 | 12.7 | < 0.005 | < 0.005 | — | 12.7 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 176 | 176 | 0.02 | < 0.005 | — | 177 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 0.01 | < 0.005 | 0.08 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 82.3 | 82.3 | 0.01 | < 0.005 | — | 82.5 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.01 | < 0.005 | 0.08 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 82.3 | 82.3 | 0.01 | < 0.005 | — | 82.5 |

## 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 | — | 1.26 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.08 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Landscape Equipme | 0.45 | 0.42 | 0.02 | 2.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.5 |
| Total | 0.45 | 1.76 | 0.02 | 2.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 1.26 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.08 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | 1.34 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 0.23 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.04 | 0.04 | < 0.005 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.85 | 0.85 | < 0.005 | < 0.005 | — | 0.86 |
| Total | 0.04 | 0.28 | < 0.005 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.85 | 0.85 | < 0.005 | < 0.005 | — | 0.86 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 2.31 | 8.37 | 10.7 | 0.24 | 0.01 | — | 18.3 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 2.31 | 8.37 | 10.7 | 0.24 | 0.01 | — | 18.3 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 56.3 | 0.00 | 56.3 | 5.63 | 0.00 | — | 197 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 56.3 | 0.00 | 56.3 | 5.63 | 0.00 | — | 197 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Emergency Generator | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Total | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Emergency Generator | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Total | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Emergency Generato | 0.05 | 0.05 | 0.22 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 23.2 | 23.2 | < 0.005 | < 0.005 | — | 23.3 |
| Total | 0.05 | 0.05 | 0.22 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 23.2 | 23.2 | < 0.005 | < 0.005 | — | 23.3 |

## 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coastal Live Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.91 | -0.91 | — | — | — | -0.91 |
| Live Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.17 | 0.17 | — | — | — | 0.17 |
| Northern Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.14 | 0.14 | — | — | — | 0.14 |
| Valley Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -4.44 | -4.44 | — | — | — | -4.44 |
| Strawberry Tree | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -2.27 | -2.27 | — | — | — | -2.27 |
| Brisbane Box | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -1.14 | -1.14 | — | — | — | -1.14 |
| Subtotal | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -8.45 | -8.45 | — | — | — | -8.45 |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | -1.31 | -1.31 | — | — | — | -1.31 |
| Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | 2.00 | 2.00 | — | — | — | 2.00 |
| Northern Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.47 | 0.47 | — | — | — | 0.47 |
| Valley Oak | — | — | — | — | — | — | — | — | — | — | — | — | -18.7 | -18.7 | — | — | — | -18.7 |
| Strawberry Tree | — | — | — | — | — | — | — | — | — | — | — | — | -3.04 | -3.04 | — | — | — | -3.04 |
| Brisbane Box | — | — | — | — | — | — | — | — | — | — | — | — | -5.85 | -5.85 | — | — | — | -5.85 |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | -26.4 | -26.4 | — | — | — | -26.4 |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Live Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Northern Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Valley Oak | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Strawberry Tree | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Brisbane Box | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Subtotal | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.91 | -0.91 | — | — | — | -0.91 |
| Live Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.17 | 0.17 | — | — | — | 0.17 |
| Northern Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.14 | 0.14 | — | — | — | 0.14 |
| Valley Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -4.44 | -4.44 | — | — | — | -4.44 |
| Strawberry Tree | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -2.27 | -2.27 | — | — | — | -2.27 |
| Brisbane Box | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -1.14 | -1.14 | — | — | — | -1.14 |
| Subtotal | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -8.45 | -8.45 | — | — | — | -8.45 |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | -1.31 | -1.31 | — | — | — | -1.31 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | 2.00 | 2.00 | — | — | — | 2.00 |
| Northern Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.47 | 0.47 | — | — | — | 0.47 |
| Valley Oak | — | — | — | — | — | — | — | — | — | — | — | — | -18.7 | -18.7 | — | — | — | -18.7 |
| Strawberry Tree | — | — | — | — | — | — | — | — | — | — | — | — | -3.04 | -3.04 | — | — | — | -3.04 |
| Brisbane Box | — | — | — | — | — | — | — | — | — | — | — | — | -5.85 | -5.85 | — | — | — | -5.85 |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | -26.4 | -26.4 | — | — | — | -26.4 |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Live Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Northern Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Valley Oak | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Strawberry Tree | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Brisbane Box | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Subtotal | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.15 | -0.15 | — | — | — | -0.15 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Live Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.03 | 0.03 | — | — | — | 0.03 |
| Northern Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.02 | 0.02 | — | — | — | 0.02 |
| Valley Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.74 | -0.74 | — | — | — | -0.74 |
| Strawberry Tree | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.38 | -0.38 | — | — | — | -0.38 |
| Brisbane Box | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.19 | -0.19 | — | — | — | -0.19 |
| Subtotal | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -1.40 | -1.40 | — | — | — | -1.40 |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | -0.22 | -0.22 | — | — | — | -0.22 |
| Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.33 | 0.33 | — | — | — | 0.33 |
| Northern Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.08 | 0.08 | — | — | — | 0.08 |
| Valley Oak | — | — | — | — | — | — | — | — | — | — | — | — | -3.09 | -3.09 | — | — | — | -3.09 |
| Strawberry Tree | — | — | — | — | — | — | — | — | — | — | — | — | -0.50 | -0.50 | — | — | — | -0.50 |
| Brisbane Box | — | — | — | — | — | — | — | — | — | — | — | — | -0.97 | -0.97 | — | — | — | -0.97 |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | -4.37 | -4.37 | — | — | — | -4.37 |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Live Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Northern Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Valley Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Strawberry Tree | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Brisbane Box | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Subtotal | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -5.77 | -5.77 | — | — | — | -5.77 |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Demolition-Excavators | Demolition | 2/1/2024 | 2/17/2024 | 6.00 | 15.0 | — |
| Demolition-Dozers | Demolition | 2/18/2024 | 3/5/2024 | 6.00 | 14.0 | — |
| Grading-Excavators | Grading | 3/6/2024 | 4/9/2024 | 6.00 | 30.0 | — |
| Grading-Dozers | Grading | 4/10/2024 | 4/20/2024 | 6.00 | 10.0 | — |
| Grading-Tractors | Grading | 4/21/2024 | 6/18/2024 | 6.00 | 50.0 | — |
| Building Construction-Cranes | Building Construction | 4/19/2024 | 5/11/2024 | 6.00 | 20.0 | — |
| Building Construction-Forklift | Building Construction | 5/11/2024 | 5/27/2024 | 6.00 | 14.0 | — |
| Building Construction-Tractor | Building Construction | 5/28/2024 | 9/9/2024 | 6.00 | 90.0 | — |
| Building Construction-Welders | Building Construction | 9/10/2024 | 10/14/2024 | 6.00 | 30.0 | — |
| Building Construction-No Equipment | Building Construction | 10/14/2024 | 8/29/2025 | 6.00 | 275 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| Paving-Tractors | Paving | 4/10/2025 | 8/19/2025 | 6.00 | 113 | — |
| Paving-Pavers | Paving | 4/10/2025 | 5/21/2025 | 6.00 | 36.0 | — |
| Paving-Paving Equipment/Rollers | Paving | 5/22/2025 | 6/25/2025 | 6.00 | 30.0 | — |
| Architectural Coating | Architectural Coating | 12/11/2024 | 4/29/2025 | 6.00 | 120 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Demolition-Excavators | Excavators | Diesel | Tier 4 Final | 1.00 | 8.00 | 36.0 | 0.38 |
| Demolition-Dozers | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Grading-Excavators | Excavators | Diesel | Tier 4 Final | 1.00 | 8.00 | 36.0 | 0.38 |
| Grading-Dozers | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Grading-Tractors | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 3.00 | 8.00 | 84.0 | 0.37 |
| Building Construction-Cranes | Cranes | Diesel | Tier 4 Final | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction-Forklift | Forklifts | Diesel | Tier 4 Final | 2.00 | 8.00 | 82.0 | 0.20 |
| Building Construction-Tractor | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 7.00 | 84.0 | 0.37 |
| Building Construction-Welders | Welders | Diesel | Tier 4 Final | 2.00 | 8.00 | 46.0 | 0.45 |
| Paving-Tractors | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving-Pavers | Pavers | Diesel | Tier 4 Final | 1.00 | 4.00 | 81.0 | 0.42 |
| Paving-Paving Equipment/Rollers | Paving Equipment | Diesel | Tier 4 Final | 1.00 | 6.00 | 89.0 | 0.36 |
| Paving-Paving Equipment/Rollers | Rollers | Diesel | Tier 4 Final | 1.00 | 6.00 | 36.0 | 0.38 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Demolition-Excavators | — | — | — | — |
| Demolition-Excavators | Worker | 16.0 | 18.5 | LDA,LDT1,LDT2 |
| Demolition-Excavators | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Demolition-Excavators | Hauling | 14.0 | 20.0 | HHDT |
| Demolition-Excavators | Onsite truck | — | — | HHDT |
| Grading-Excavators | — | — | — | — |
| Grading-Excavators | Worker | 16.0 | 18.5 | LDA,LDT1,LDT2 |
| Grading-Excavators | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Grading-Excavators | Hauling | 18.0 | 20.0 | HHDT |
| Grading-Excavators | Onsite truck | — | — | HHDT |
| Building Construction-Cranes | — | — | — | — |
| Building Construction-Cranes | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-Cranes | Vendor | 10.0 | 10.2 | HHDT,MHDT |
| Building Construction-Cranes | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Cranes | Onsite truck | — | — | HHDT |
| Paving-Tractors | — | — | — | — |
| Paving-Tractors | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Paving-Tractors | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Paving-Tractors | Hauling | 0.00 | 20.0 | HHDT |
| Paving-Tractors | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 4.00 | 18.5 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 2.00 | 10.2 | HHDT,MHDT |

| | | | | |
|---|---|---|---|---|
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |
| Demolition-Dozers | — | — | — | — |
| Demolition-Dozers | Worker | 16.0 | 18.5 | LDA,LDT1,LDT2 |
| Demolition-Dozers | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Demolition-Dozers | Hauling | 10.0 | 20.0 | HHDT |
| Demolition-Dozers | Onsite truck | — | — | HHDT |
| Grading-Dozers | — | — | — | — |
| Grading-Dozers | Worker | 16.0 | 18.5 | LDA,LDT1,LDT2 |
| Grading-Dozers | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Grading-Dozers | Hauling | 18.0 | 20.0 | HHDT |
| Grading-Dozers | Onsite truck | — | — | HHDT |
| Grading-Tractors | — | — | — | — |
| Grading-Tractors | Worker | 16.0 | 18.5 | LDA,LDT1,LDT2 |
| Grading-Tractors | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Grading-Tractors | Hauling | 18.0 | 20.0 | HHDT |
| Grading-Tractors | Onsite truck | — | — | HHDT |
| Building Construction-Forklift | — | — | — | — |
| Building Construction-Forklift | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-Forklift | Vendor | 10.0 | 10.2 | HHDT,MHDT |
| Building Construction-Forklift | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Forklift | Onsite truck | — | — | HHDT |
| Building Construction-Tractor | — | — | — | — |
| Building Construction-Tractor | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-Tractor | Vendor | 10.0 | 10.2 | HHDT,MHDT |
| Building Construction-Tractor | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Tractor | Onsite truck | — | — | HHDT |

| | | | | |
|---|---|---|---|---|
| Building Construction-Welders | — | — | — | — |
| Building Construction-Welders | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-Welders | Vendor | 10.0 | 10.2 | HHDT,MHDT |
| Building Construction-Welders | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Welders | Onsite truck | — | — | HHDT |
| Building Construction-No Equipment | — | — | — | — |
| Building Construction-No Equipment | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-No Equipment | Vendor | 10.0 | 10.2 | HHDT,MHDT |
| Building Construction-No Equipment | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-No Equipment | Onsite truck | — | — | HHDT |
| Paving-Pavers | — | — | — | — |
| Paving-Pavers | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Paving-Pavers | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Paving-Pavers | Hauling | 0.00 | 20.0 | HHDT |
| Paving-Pavers | Onsite truck | — | — | HHDT |
| Paving-Paving Equipment/Rollers | — | — | — | — |
| Paving-Paving Equipment/Rollers | Worker | 20.0 | 18.5 | LDA,LDT1,LDT2 |
| Paving-Paving Equipment/Rollers | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Paving-Paving Equipment/Rollers | Hauling | 0.00 | 20.0 | HHDT |
| Paving-Paving Equipment/Rollers | Onsite truck | — | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |
| Limit vehicle speeds on unpaved roads to 25 mph | 44% | 44% |

## 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 | 87,618 | 29,206 | 5,481 |

## 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 (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Demolition-Excavators | 0.00 | 0.00 | 0.00 | 500 | — |
| Demolition-Dozers | 0.00 | 0.00 | 0.00 | 500 | — |
| Grading-Excavators | — | 4,156 | 8.00 | 0.00 | — |
| Grading-Dozers | — | 1,386 | 5.00 | 0.00 | — |
| Grading-Tractors | — | 6,928 | 0.00 | 0.00 | — |
| Paving-Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 |
| Paving-Pavers | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 |
| Paving-Paving Equipment/Rollers | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 |

### 5.6.2. Construction Earthmoving Control Strategies

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

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|

| | | |
|---|---|---|
| Medical Office Building | 0.00 | 0% |
| Parking Lot | 2.10 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2024 | 10,829 | 349 | 0.03 | < 0.005 |
| 2025 | 8,663 | 349 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Medical Office Building | 2,103 | 501 | 82.9 | 578,666 | 22,767 | 5,420 | 898 | 6,265,124 |
| Parking Lot | 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 | 87,618 | 29,206 | 5,481 |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

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

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Medical Office Building | 1,032,019 | 349 | 0.0330 | 0.0040 | 1,550,900 |
| Parking Lot | 80,018 | 349 | 0.0330 | 0.0040 | 0.00 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Medical Office Building | 7,277,871 | 642,405 |
| Parking Lot | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Medical Office Building | 631 | — |
| Parking Lot | 0.00 | — |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Medical Office Building | Household refrigerators and/or freezers | R-134a | 1,430 | 0.45 | 0.60 | 0.00 | 1.00 |
| Medical 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 |
|---|---|---|---|---|---|---|
| Emergency Generator | Diesel | 1.00 | 0.50 | 50.0 | 1,220 | 0.73 |

### 5.16.2. Process Boilers

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

## 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) |
|---|---|---|---|
| Coastal Live Oak | 17.0 | 29,761 | 137 |
| Valley Oak | 28.0 | 49,626 | 160 |
| Strawberry Tree | 11.0 | 21,437 | 103 |
| Brisbane Box | 10.0 | 12,734 | 40.7 |
| Coastal Live Oak | -12.0 | 21,008 | 96.7 |
| Live Oak | -2.00 | 1,794 | 6.70 |
| Northern Oak | -1.00 | 1,612 | 5.20 |

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

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

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 14.8 | annual days of extreme heat |
| Extreme Precipitation | 6.90 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 25.7 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

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

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

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

## 6.3. Adjusted Climate Risk Scores

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

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

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 55.4 |
| AQ-PM | 40.4 |
| AQ-DPM | 30.9 |

| | |
|---|---|
| Drinking Water | 58.8 |
| Lead Risk Housing | 13.4 |
| Pesticides | 11.0 |
| Toxic Releases | 29.0 |
| Traffic | 95.1 |
| Effect Indicators | — |
| CleanUp Sites | 17.1 |
| Groundwater | 0.00 |
| Haz Waste Facilities/Generators | 56.4 |
| Impaired Water Bodies | 87.0 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 3.38 |
| Cardio-vascular | 11.9 |
| Low Birth Weights | 48.8 |
| Socioeconomic Factor Indicators | — |
| Education | 21.4 |
| Housing | 41.9 |
| Linguistic | 32.0 |
| Poverty | 17.7 |
| Unemployment | 0.91 |

## 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 | 73.32221224 |

| | |
|---|---|
| Employed | 78.07006288 |
| Median HI | 82.43295265 |
| Education | — |
| Bachelor's or higher | 84.01129219 |
| High school enrollment | 100 |
| Preschool enrollment | 1.873476197 |
| Transportation | — |
| Auto Access | 81.29090209 |
| Active commuting | 11.85679456 |
| Social | — |
| 2-parent households | 50.09624022 |
| Voting | 89.33658411 |
| Neighborhood | — |
| Alcohol availability | 87.69408443 |
| Park access | 81.35506224 |
| Retail density | 15.78339535 |
| Supermarket access | 12.11343513 |
| Tree canopy | 83.9727961 |
| Housing | — |
| Homeownership | 61.20877711 |
| Housing habitability | 74.31027846 |
| Low-inc homeowner severe housing cost burden | 43.26960092 |
| Low-inc renter severe housing cost burden | 58.09059412 |
| Uncrowded housing | 96.93314513 |
| Health Outcomes | — |
| Insured adults | 41.5629411 |
| Arthritis | 25.8 |

| | |
|---|---|
| Asthma ER Admissions | 95.0 |
| High Blood Pressure | 14.3 |
| Cancer (excluding skin) | 10.4 |
| Asthma | 65.7 |
| Coronary Heart Disease | 37.1 |
| Chronic Obstructive Pulmonary Disease | 56.7 |
| Diagnosed Diabetes | 79.4 |
| Life Expectancy at Birth | 83.3 |
| Cognitively Disabled | 62.4 |
| Physically Disabled | 98.1 |
| Heart Attack ER Admissions | 76.7 |
| Mental Health Not Good | 82.3 |
| Chronic Kidney Disease | 55.3 |
| Obesity | 74.1 |
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 78.6 |
| Stroke | 64.5 |
| Health Risk Behaviors | — |
| Binge Drinking | 33.9 |
| Current Smoker | 84.4 |
| No Leisure Time for Physical Activity | 83.8 |
| Climate Change Exposures | — |
| Wildfire Risk | 81.0 |
| SLR Inundation Area | 0.0 |
| Children | 67.0 |
| Elderly | 30.9 |
| English Speaking | 83.7 |

| | |
|---|---|
| Foreign-born | 30.1 |
| Outdoor Workers | 33.4 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 90.0 |
| Traffic Density | 90.1 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 29.1 |
| Other Decision Support | — |
| 2016 Voting | 94.8 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 15.0 |
| Healthy Places Index Score for Project Location (b) | 72.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

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

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
| --- | --- |
| Construction: Trips and VMT | Trips were rounded up to account for whole round trips. |
| Operations: Vehicle Data | Weekday trips revised to match traffic and parking study. |
| Operations: Water and Waste Water | Based on landscaping plan. |
| Operations: Generators + Pumps EF | Generator includes a Level 3 diesel particulate filter. |
| Operations: Emergency Generators and Fire Pumps | 1,220 horsepower Tier 2 with DPF. |
| Construction: Off-Road Equipment | Based on applicant provided information. |
| Construction: Dust From Material Movement | Based on applicant provided information. |
| Construction: Electricity | Based on estimated electricity use during construction. |
| Land Use | Based on project description |
| Construction: Construction Phases | Based on applicant provided information. |

This data was produced from the i-Tree Planting Calculator version 2.2.0 for Thousand Oaks; CA.
Location: Thousand Oaks; CA 91360
Electricity Emissions Factor: 252.4
Fuel Emissions Factor: 52
Lifetime: 30
Tree Mortality: 10
Run Date: 3-9-2023

| Group Identifier | Tree Group Characteristics | CO2 Avoided (pounds) | CO2 Avoided ($) | CO2 Sequestered (pounds) | CO2 Sequestered ($) | Electricity Saved (kWh) | Electricity Saved ($) | Fuel Saved (MMBtu) | Fuel Saved ($) | Tree Biomass (short ton) | Rainfall Interception (gallons) | Avoided Runoff (gallons) | Avoided Runoff ($) | O3 Removed (pounds) | NO2 Avoided (pounds) | NO2 Removed (pounds) | SO2 Avoided (pounds) | SO2 Removed (pounds) | VOC Avoided (pounds) | PM2.5 Avoided (pounds) | PM2.5 Removed (pounds) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | (12.0) Oak, Coastal live oak; Ca | 23,912.50 | $556.13 | 34,395.30 | $799.93 | 21,007.50 | $4,300.23 | 96.7 | $1,251.20 | 8.4 | 77,234.60 | 12,834.10 | $114.69 | 149.8 | 1.7 | 14.4 | 6.1 | 2.2 | 11 | 6.9 | 1.1 |
| 2 | (2.0) Oak, Live (Quercus virgin | 1,860.40 | $43.27 | 21,847.00 | $508.09 | 1,793.90 | $367.21 | 6.7 | $86.36 | 5.4 | 33,813.90 | 5,618.90 | $50.21 | 50.1 | 0.1 | 4.6 | 0.5 | 0.8 | 0.9 | 0.6 | 0.3 |
| 3 | (1.0) Oak, Northern red (Quer | 1,578.90 | $36.72 | 5,112.60 | $118.90 | 1,612.10 | $329.99 | 5.2 | $67.10 | 1.2 | 9,980.50 | 1,658.50 | $14.82 | 19.6 | 0.1 | 1.8 | 0.4 | 0.3 | 0.8 | 0.5 | 0.1 |

This data was produced from the i-Tree Planting Calculator version 2.4.0 for Thousand Oaks; CA.
Location: Thousand Oaks; CA 91360
Electricity Emissions Factor: 252.4
Fuel Emissions Factor: 52
Lifetime: 30
Tree Mortality: 10
Run Date: 4-13-2023

| Group Iden | Tree Group | Species | DBH (inche | Distance to | Direction | Building Vi | TreeCondit | CrownLight | CO2 Avoide | CO2 Avoide | CO2 Seque | CO2 Seque | Electricity S | Electricity S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | (11.0) Strav | Strawberry | 1 | 0-19 | north (0Â°) | post-1980 | excellent | full sun | 24,886.20 | $578.78 | 33,312.50 | $774.75 | 21,437.20 | $4,388.20 |
| 2 | (10.0) Brisb | Brisbane bo | 1 | 0-19 | north (0Â°) | post-1980 | excellent | full sun | 12,440.80 | $289.33 | 81,311.80 | $1,891.06 | 12,733.50 | $2,606.55 |
| 3 | (28.0) Califo | California v | 1 | 0-19 | north (0Â°) | post-1980 | excellent | full sun | 48,632.00 | $1,131.03 | ######## | $4,758.76 | 49,626.30 | ######## |
| 4 | (17.0) Coas | Coastal live | 1 | 0-19 | north (0Â°) | post-1980 | excellent | full sun | 33,876.00 | $787.85 | 48,726.70 | $1,133.23 | 29,760.60 | $6,091.99 |
| Total | | | | | | | | | ######## | $2,786.99 | ######## | $8,557.80 | ######## | ######## |

| Group Iden | Fuel Saved | Fuel Saved | Tree Bioma | Rainfall Int | Avoided Ru | Avoided Ru | O3 Remove | NO2 Avoid | NO2 Remo | SO2 Avoide | SO2 Remov | VOC Avoide | PM2.5 Avo | PM2.5 Rem | Removal Va | Avoided Va |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 102.9 | $1,331.49 | 8.3 | 69,016.40 | 11,468.50 | $102.48 | 102.39 | 1.79 | 9.5 | 6.3 | 1.56 | 11.29 | 7.06 | 0.66 | $358.66 | $37.80 |
| 2 | 40.7 | $526.61 | 19.8 | 68,042.10 | 11,306.60 | $101.04 | 127.83 | 0.89 | 11.69 | 3.15 | 1.78 | 6.6 | 4.17 | 0.79 | $427.77 | $21.72 |
| 3 | 159.9 | $2,068.91 | 50.5 | ######## | 59,215.30 | $529.15 | 717.78 | 3.5 | 65.92 | 12.31 | 9.97 | 25.72 | 16.26 | 4.49 | $2,405.35 | $84.69 |
| 4 | 137 | $1,772.54 | 11.9 | ######## | 18,181.60 | $162.47 | 212.17 | 2.44 | 20.42 | 8.57 | 3.18 | 15.65 | 9.8 | 1.62 | $798.89 | $52.26 |
| Total | 440.5 | $5,699.55 | 90.5 | ######## | ######## | $895.14 | 1,160.16 | 8.62 | 107.54 | 30.33 | 16.5 | 59.26 | 37.29 | 7.56 | $3,990.68 | $196.48 |

# 355 W Janss Road General Plan Amendment and Zone Change Detailed Report

## Table of Contents

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | 355 W Janss Road General Plan Amendment and Zone Change |
| Construction Start Date | 2/1/2027 |
| Operational Year | 2028 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.70 |
| Precipitation (days) | 10.4 |
| Location | 34.20649971935046, -118.88550652180294 |
| County | Ventura |
| City | Thousand Oaks |
| Air District | Ventura County APCD |
| Air Basin | South Central Coast |
| TAZ | 3514 |
| EDFZ | 8 |
| Electric Utility | Southern California Edison |
| Gas Utility | Southern California Gas |
| App Version | 2022.1.1.17 |

## 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 |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 9.00 | Dwelling Unit | 2.15 | 17,550 | 105,416 | — | 27.0 | — |

## 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. | 0.26 | 0.26 | 3.89 | 13.0 | 0.02 | 0.04 | 0.09 | 0.13 | 0.04 | 0.02 | 0.06 | — | 2,378 | 2,378 | 0.09 | 0.04 | 0.46 | 2,392 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.41 | 8.48 | 5.61 | 16.1 | 0.04 | 0.08 | 3.92 | 4.00 | 0.08 | 1.38 | 1.42 | — | 5,181 | 5,181 | 0.16 | 0.42 | 0.15 | 5,310 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.22 | 0.32 | 3.10 | 10.5 | 0.02 | 0.03 | 0.39 | 0.43 | 0.03 | 0.09 | 0.12 | — | 2,071 | 2,071 | 0.08 | 0.06 | 0.32 | 2,090 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.04 | 0.06 | 0.57 | 1.91 | < 0.005 | 0.01 | 0.07 | 0.08 | 0.01 | 0.02 | 0.02 | — | 343 | 343 | 0.01 | 0.01 | 0.05 | 346 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.26 | 0.26 | 3.89 | 13.0 | 0.02 | 0.04 | 0.09 | 0.13 | 0.04 | 0.02 | 0.06 | — | 2,378 | 2,378 | 0.09 | 0.04 | 0.46 | 2,392 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.41 | 0.34 | 5.61 | 16.1 | 0.04 | 0.08 | 3.92 | 4.00 | 0.08 | 1.38 | 1.42 | — | 5,181 | 5,181 | 0.16 | 0.42 | 0.15 | 5,310 |
| 2028 | 0.26 | 8.48 | 3.89 | 13.0 | 0.02 | 0.04 | 0.24 | 0.27 | 0.04 | 0.06 | 0.08 | — | 2,374 | 2,374 | 0.09 | 0.04 | 0.02 | 2,387 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.22 | 0.21 | 3.10 | 10.5 | 0.02 | 0.03 | 0.39 | 0.43 | 0.03 | 0.09 | 0.12 | — | 2,071 | 2,071 | 0.08 | 0.06 | 0.32 | 2,090 |
| 2028 | 0.02 | 0.32 | 0.26 | 0.91 | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 166 | 166 | 0.01 | < 0.005 | 0.03 | 167 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.04 | 0.04 | 0.57 | 1.91 | < 0.005 | 0.01 | 0.07 | 0.08 | 0.01 | 0.02 | 0.02 | — | 343 | 343 | 0.01 | 0.01 | 0.05 | 346 |
| 2028 | < 0.005 | 0.06 | 0.05 | 0.17 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 27.5 | 27.5 | < 0.005 | < 0.005 | < 0.005 | 27.7 |

## 2.4. Operations Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.42 | 0.80 | 0.35 | 2.93 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 805 | 810 | 0.50 | 0.03 | 2.02 | 832 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.37 | 0.75 | 0.38 | 2.39 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 783 | 787 | 0.50 | 0.03 | 0.17 | 809 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unmit. | 0.39 | 0.76 | 0.37 | 2.55 | 0.01 | 0.01 | 0.57 | 0.58 | 0.01 | 0.14 | 0.16 | 4.54 | 773 | 778 | 0.50 | 0.03 | 0.93 | 800 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.07 | 0.14 | 0.07 | 0.46 | < 0.005 | < 0.005 | 0.10 | 0.11 | < 0.005 | 0.03 | 0.03 | 0.75 | 128 | 129 | 0.08 | < 0.005 | 0.15 | 132 |

## 2.5. Operations Emissions by Sector, Unmitigated

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

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.37 | 0.34 | 0.25 | 2.37 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 614 | 614 | 0.02 | 0.03 | 1.89 | 624 |
| Area | 0.05 | 0.45 | < 0.005 | 0.51 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.37 |
| Energy | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 179 | 179 | 0.02 | < 0.005 | — | 180 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | 0.42 | 0.80 | 0.35 | 2.93 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 805 | 810 | 0.50 | 0.03 | 2.02 | 832 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.36 | 0.34 | 0.28 | 2.35 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 593 | 593 | 0.03 | 0.03 | 0.05 | 602 |
| Area | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Energy | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 179 | 179 | 0.02 | < 0.005 | — | 180 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | 0.37 | 0.75 | 0.38 | 2.39 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 783 | 787 | 0.50 | 0.03 | 0.17 | 809 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.35 | 0.33 | 0.27 | 2.25 | 0.01 | < 0.005 | 0.57 | 0.57 | < 0.005 | 0.14 | 0.15 | — | 583 | 583 | 0.03 | 0.03 | 0.80 | 592 |
| Area | 0.02 | 0.43 | < 0.005 | 0.25 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.67 | 0.67 | < 0.005 | < 0.005 | — | 0.68 |
| Energy | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 179 | 179 | 0.02 | < 0.005 | — | 180 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | 0.39 | 0.76 | 0.37 | 2.55 | 0.01 | 0.01 | 0.57 | 0.58 | 0.01 | 0.14 | 0.16 | 4.54 | 773 | 778 | 0.50 | 0.03 | 0.93 | 800 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.06 | 0.06 | 0.05 | 0.41 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.03 | 0.03 | — | 96.5 | 96.5 | < 0.005 | < 0.005 | 0.13 | 98.0 |
| Area | < 0.005 | 0.08 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.11 | 0.11 | < 0.005 | < 0.005 | — | 0.11 |
| Energy | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 29.7 | 29.7 | < 0.005 | < 0.005 | — | 29.8 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.11 | 1.75 | 1.86 | 0.01 | < 0.005 | — | 2.23 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 0.64 | 0.00 | 0.64 | 0.06 | 0.00 | — | 2.25 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |
| Total | 0.07 | 0.14 | 0.07 | 0.46 | < 0.005 | < 0.005 | 0.10 | 0.11 | < 0.005 | 0.03 | 0.03 | 0.75 | 128 | 129 | 0.08 | < 0.005 | 0.15 | 132 |

# 3. Construction Emissions Details

## 3.1. Demolition (2027) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.25 | 0.25 | 2.27 | 14.6 | 0.02 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 2,494 | 2,494 | 0.10 | 0.02 | — | 2,502 |
| Demolition | — | — | — | — | — | — | 3.05 | 3.05 | — | 0.46 | 0.46 | — | — | — | — | — | — | — |
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.16 | 1.00 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 171 | 171 | 0.01 | < 0.005 | — | 171 |
| Demolition | — | — | — | — | — | — | 0.21 | 0.21 | — | 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 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.18 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 28.3 | 28.3 | < 0.005 | < 0.005 | — | 28.4 |
| Demolition | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.06 | 0.69 | 0.00 | 0.00 | 0.18 | 0.18 | 0.00 | 0.04 | 0.04 | — | 172 | 172 | < 0.005 | 0.01 | 0.02 | — |
| Vendor | < 0.005 | < 0.005 | 0.14 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 119 | 119 | < 0.005 | 0.02 | 0.01 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.10 | 0.04 | 3.14 | 0.79 | 0.02 | 0.03 | 0.65 | 0.68 | 0.03 | 0.18 | 0.21 | — | 2,389 | 2,389 | 0.06 | 0.37 | 0.13 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 11.9 | 11.9 | < 0.005 | < 0.005 | 0.02 | — |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 8.14 | 8.14 | < 0.005 | < 0.005 | 0.01 | — |
| Hauling | 0.01 | < 0.005 | 0.22 | 0.05 | < 0.005 | < 0.005 | 0.04 | 0.05 | < 0.005 | 0.01 | 0.01 | — | 164 | 164 | < 0.005 | 0.03 | 0.14 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.97 | 1.97 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.35 | 1.35 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | < 0.005 | < 0.005 | 0.04 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 27.1 | 27.1 | < 0.005 | < 0.005 | 0.02 | — |

## 3.3. Site Preparation (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 | 0.26 | 0.26 | 1.33 | 15.0 | 0.03 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 2,716 | 2,716 | 0.11 | 0.02 | — | 2,725 |
| Dust From Material Movement | — | — | — | — | — | — | 0.62 | 0.62 | — | 0.07 | 0.07 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.21 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 37.2 | 37.2 | < 0.005 | < 0.005 | — | 37.3 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 6.16 | 6.16 | < 0.005 | < 0.005 | — | 6.18 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.03 | 0.04 | 0.40 | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.02 | 0.02 | — | 98.5 | 98.5 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | < 0.005 | < 0.005 | 0.14 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 119 | 119 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| 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 | — | 1.36 | 1.36 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.63 | 1.63 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.22 | 0.22 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.27 | 0.27 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.5. Grading (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 | 0.23 | 0.23 | 1.20 | 14.2 | 0.02 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 2,455 | 2,455 | 0.10 | 0.02 | — | 2,464 |
| Dust From Material Movement | — | — | — | — | — | — | 2.76 | 2.76 | — | 1.34 | 1.34 | — | — | — | — | — | — | — |
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.27 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 47.1 | 47.1 | < 0.005 | < 0.005 | — | 47.3 |
| 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 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.80 | 7.80 | < 0.005 | < 0.005 | — | 7.82 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.04 | 0.04 | 0.50 | 0.00 | 0.00 | 0.13 | 0.13 | 0.00 | 0.03 | 0.03 | — | 123 | 123 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | < 0.005 | < 0.005 | 0.14 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 119 | 119 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| 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 | — | 2.38 | 2.38 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.28 | 2.28 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.39 | 0.39 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.38 | 0.38 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.7. Building Construction (2027) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.24 | 0.24 | 3.74 | 12.8 | 0.02 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 2,201 | 2,201 | 0.09 | 0.02 | — | 2,208 |
| 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 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.24 | 0.24 | 3.74 | 12.8 | 0.02 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 2,201 | 2,201 | 0.09 | 0.02 | — | 2,208 |
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.16 | 0.16 | 2.55 | 8.72 | 0.02 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,504 | 1,504 | 0.06 | 0.01 | — | 1,509 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.47 | 1.59 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 249 | 249 | 0.01 | < 0.005 | — | 250 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.22 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.01 | 0.01 | — | 51.5 | 51.5 | < 0.005 | < 0.005 | 0.18 | — |
| Vendor | 0.01 | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 119 | 119 | < 0.005 | 0.02 | 0.28 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.20 | 0.00 | 0.00 | 0.05 | 0.05 | 0.00 | 0.01 | 0.01 | — | 49.2 | 49.2 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | 0.14 | 0.05 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 119 | 119 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.14 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 33.9 | 33.9 | < 0.005 | < 0.005 | 0.05 | — |
| Vendor | < 0.005 | < 0.005 | 0.10 | 0.03 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 81.2 | 81.2 | < 0.005 | 0.01 | 0.08 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 5.61 | 5.61 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 13.5 | 13.5 | < 0.005 | < 0.005 | 0.01 | — |
| 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 | — |

## 3.9. Building Construction (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.24 | 0.24 | 3.74 | 12.8 | 0.02 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 2,201 | 2,201 | 0.09 | 0.02 | — | 2,209 |
| 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 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.16 | 0.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 93.1 | 93.1 | < 0.005 | < 0.005 | — | 93.4 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.4 | 15.4 | < 0.005 | < 0.005 | — | 15.5 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | 48.3 | 48.3 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 116 | 116 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| 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 | — | 2.06 | 2.06 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.90 | 4.90 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.34 | 0.34 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.81 | 0.81 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.11. Paving (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.13 | 1.77 | 8.32 | 0.01 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 1,244 | 1,244 | 0.05 | 0.01 | — | 1,248 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.06 | 0.30 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 44.3 | 44.3 | < 0.005 | < 0.005 | — | 44.5 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.33 | 7.33 | < 0.005 | < 0.005 | — | 7.36 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.06 | 0.74 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 193 | 193 | < 0.005 | 0.01 | 0.02 | — |
| Vendor | < 0.005 | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 116 | 116 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| 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 | — | 6.94 | 6.94 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.13 | 4.13 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.15 | 1.15 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.68 | 0.68 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.13. Architectural Coating (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.65 | 0.96 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 8.45 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.76 | 4.76 | < 0.005 | < 0.005 | — | 4.77 |
| Architectural Coatings | — | 0.30 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.79 | 0.79 | < 0.005 | < 0.005 | — | 0.79 |
| Architectural Coatings | — | 0.05 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.09 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 24.2 | 24.2 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 116 | 116 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| 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 | — | 0.87 | 0.87 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.13 | 4.13 | < 0.005 | < 0.005 | < 0.005 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.14 | 0.14 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.68 | 0.68 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

# 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.37 | 0.34 | 0.25 | 2.37 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 614 | 614 | 0.02 | 0.03 | 1.89 | 624 |
| Total | 0.37 | 0.34 | 0.25 | 2.37 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 614 | 614 | 0.02 | 0.03 | 1.89 | 624 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.36 | 0.34 | 0.28 | 2.35 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 593 | 593 | 0.03 | 0.03 | 0.05 | 602 |
| Total | 0.36 | 0.34 | 0.28 | 2.35 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 593 | 593 | 0.03 | 0.03 | 0.05 | 602 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.06 | 0.06 | 0.05 | 0.41 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.03 | 0.03 | — | 96.5 | 96.5 | < 0.005 | < 0.005 | 0.13 | 98.0 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.06 | 0.06 | 0.05 | 0.41 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.03 | 0.03 | — | 96.5 | 96.5 | < 0.005 | < 0.005 | 0.13 | 98.0 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 8.96 | 8.96 | < 0.005 | < 0.005 | — | 9.01 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 8.96 | 8.96 | < 0.005 | < 0.005 | — | 9.01 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Total | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Total | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 20.7 | 20.7 | < 0.005 | < 0.005 | — | 20.8 |
| Total | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 20.7 | 20.7 | < 0.005 | < 0.005 | — | 20.8 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | — | 0.03 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.05 | 0.04 | < 0.005 | 0.51 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.37 |
| Total | 0.05 | 0.45 | < 0.005 | 0.51 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.37 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.03 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 0.00 | 0.41 | 0.00 | 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | < 0.005 | < 0.005 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.11 | 0.11 | < 0.005 | < 0.005 | — | 0.11 |
| Total | < 0.005 | 0.08 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.11 | 0.11 | < 0.005 | < 0.005 | — | 0.11 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.11 | 1.75 | 1.86 | 0.01 | < 0.005 | — | 2.23 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.11 | 1.75 | 1.86 | 0.01 | < 0.005 | — | 2.23 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.64 | 0.00 | 0.64 | 0.06 | 0.00 | — | 2.25 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.64 | 0.00 | 0.64 | 0.06 | 0.00 | — | 2.25 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |

## 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 |
|---|---|---|---|---|---|---|
| Demolition | Demolition | 2/1/2027 | 3/1/2027 | 6.00 | 25.0 | — |
| Site Preparation | Site Preparation | 3/2/2027 | 3/6/2027 | 6.00 | 5.00 | — |
| Grading | Grading | 3/7/2027 | 3/15/2027 | 6.00 | 7.00 | — |
| Building Construction | Building Construction | 3/16/2027 | 1/18/2028 | 6.00 | 265 | — |
| Paving | Paving | 1/19/2028 | 2/2/2028 | 6.00 | 13.0 | — |
| Architectural Coating | Architectural Coating | 2/3/2028 | 2/17/2028 | 6.00 | 13.0 | — |

## 5.2. Off-Road Equipment

## 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Demolition | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 3.00 | 8.00 | 84.0 | 0.37 |
| Demolition | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Demolition | Concrete/Industrial Saws | Diesel | Tier 4 Final | 1.00 | 8.00 | 33.0 | 0.73 |
| Site Preparation | Graders | Diesel | Tier 4 Final | 1.00 | 8.00 | 148 | 0.41 |
| Site Preparation | Scrapers | Diesel | Tier 4 Final | 1.00 | 8.00 | 423 | 0.48 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 7.00 | 84.0 | 0.37 |
| Grading | Graders | Diesel | Tier 4 Final | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 2.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Cranes | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Tier 4 Final | 2.00 | 7.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Tier 4 Final | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 6.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Tier 4 Final | 3.00 | 8.00 | 46.0 | 0.45 |
| Paving | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving | Pavers | Diesel | Tier 4 Final | 1.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Tier 4 Final | 1.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Tier 4 Final | 2.00 | 8.00 | 36.0 | 0.38 |
| Paving | Cement and Mortar Mixers | Diesel | Tier 4 Final | 1.00 | 8.00 | 10.0 | 0.56 |
| Architectural Coating | Air Compressors | Diesel | Tier 4 Final | 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 |
|---|---|---|---|---|
| Demolition | — | — | — | — |
| Demolition | Worker | 14.0 | 18.5 | LDA,LDT1,LDT2 |
| Demolition | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Demolition | Hauling | 36.0 | 20.0 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 8.00 | 18.5 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 10.0 | 18.5 | LDA,LDT1,LDT2 |
| Grading | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 4.00 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 16.0 | 18.5 | LDA,LDT1,LDT2 |
| Paving | Vendor | 4.00 | 10.2 | HHDT,MHDT |

| | | | | |
|---|---|---|---|---|
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 2.00 | 18.5 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 4.00 | 10.2 | 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

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |
| Limit vehicle speeds on unpaved roads to 25 mph | 44% | 44% |

## 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 | 35,539 | 11,846 | 0.00 | 0.00 | — |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Demolition | 0.00 | 0.00 | 0.00 | 3,512 | — |
| Site Preparation | — | — | 7.50 | 0.00 | — |

| | | | | | |
|---|---|---|---|---|---|
| Grading | — | — | 7.00 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 |

### 5.6.2. Construction Earthmoving Control Strategies

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

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Single Family Housing | 0.10 | 0% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2027 | 3,579 | 532 | 0.03 | < 0.005 |
| 2028 | 651 | 532 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 85.0 | 85.9 | 77.0 | 30,640 | 820 | 829 | 743 | 295,802 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

| Hearth Type | Unmitigated (number) |
|---|---|
| Single Family Housing | — |
| Wood Fireplaces | 0 |
| Gas Fireplaces | 0 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 9 |
| Conventional Wood Stoves | 0 |
| Catalytic Wood Stoves | 0 |
| Non-Catalytic Wood Stoves | 0 |
| Pellet Wood Stoves | 0 |

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 35538.75 | 11,846 | 0.00 | 0.00 | — |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

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

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Single Family Housing | 57,063 | 346 | 0.0330 | 0.0040 | 390,832 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Single Family Housing | 341,131 | 1,665,609 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Single Family Housing | 7.21 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Single Family Housing | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Single Family Housing | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

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

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

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

### 5.16.2. Process Boilers

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

## 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|
| — | — |

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

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

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

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

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 14.1 | annual days of extreme heat |
| Extreme Precipitation | 4.95 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 29.4 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

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

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

## 6.3. Adjusted Climate Risk Scores

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

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

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

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

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 53.7 |
| AQ-PM | 40.3 |
| AQ-DPM | 21.8 |
| Drinking Water | 65.2 |
| Lead Risk Housing | 27.0 |
| Pesticides | 0.00 |
| Toxic Releases | 23.0 |
| Traffic | 35.0 |
| Effect Indicators | — |
| CleanUp Sites | 0.00 |
| Groundwater | 49.8 |
| Haz Waste Facilities/Generators | 77.0 |
| Impaired Water Bodies | 66.7 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 17.6 |
| Cardio-vascular | 54.7 |

| | |
|---|---|
| Low Birth Weights | 37.0 |
| Socioeconomic Factor Indicators | — |
| Education | 29.3 |
| Housing | 36.7 |
| Linguistic | 0.00 |
| Poverty | 37.6 |
| Unemployment | 25.2 |

## 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 | 68.52303349 |
| Employed | 87.052483 |
| Median HI | 88.4383421 |
| Education | — |
| Bachelor's or higher | 71.25625561 |
| High school enrollment | 100 |
| Preschool enrollment | 72.96291544 |
| Transportation | — |
| Auto Access | 71.35891184 |
| Active commuting | 11.48466573 |
| Social | — |
| 2-parent households | 81.45771847 |
| Voting | 86.39804953 |
| Neighborhood | — |
| Alcohol availability | 87.33478763 |

| | |
|---|---|
| Park access | 44.3731554 |
| Retail density | 67.88143205 |
| Supermarket access | 83.42101886 |
| Tree canopy | 64.32696009 |
| Housing | — |
| Homeownership | 91.03041191 |
| Housing habitability | 96.53535224 |
| Low-inc homeowner severe housing cost burden | 80.12318748 |
| Low-inc renter severe housing cost burden | 92.7242397 |
| Uncrowded housing | 70.98678301 |
| Health Outcomes | — |
| Insured adults | 71.51289619 |
| Arthritis | 11.9 |
| Asthma ER Admissions | 72.0 |
| High Blood Pressure | 8.4 |
| Cancer (excluding skin) | 6.0 |
| Asthma | 51.9 |
| Coronary Heart Disease | 13.8 |
| Chronic Obstructive Pulmonary Disease | 31.1 |
| Diagnosed Diabetes | 64.3 |
| Life Expectancy at Birth | 80.9 |
| Cognitively Disabled | 9.6 |
| Physically Disabled | 23.7 |
| Heart Attack ER Admissions | 45.2 |
| Mental Health Not Good | 73.6 |
| Chronic Kidney Disease | 35.4 |
| Obesity | 68.0 |

| | |
|---|---|
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 62.9 |
| Stroke | 34.3 |
| Health Risk Behaviors | — |
| Binge Drinking | 41.7 |
| Current Smoker | 73.9 |
| No Leisure Time for Physical Activity | 71.3 |
| Climate Change Exposures | — |
| Wildfire Risk | 5.1 |
| SLR Inundation Area | 0.0 |
| Children | 79.8 |
| Elderly | 13.7 |
| English Speaking | 58.7 |
| Foreign-born | 33.5 |
| Outdoor Workers | 79.5 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 76.4 |
| Traffic Density | 32.9 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 40.9 |
| Other Decision Support | — |
| 2016 Voting | 93.6 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 23.0 |

| | |
|---|---|
| Healthy Places Index Score for Project Location (b) | 87.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

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

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Land Use | Based on project description. |
| Construction: Construction Phases | Thousand Oaks noise ordinance allows construction 6 days per week. |
| Construction: Off-Road Equipment | Tier 4 Final as project design feature per project description. |
| Construction: Trips and VMT | Trips rounded up to account for whole round trips. |
| Construction: Electricity | Based on electricity for construction. |

# Appendix B

## Health Risk Assessment

# Table of Contents

# Los Robles Comprehensive Cancer Center Project HRA Detailed Report

## Table of Contents

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Los Robles Comprehensive Cancer Center Project HRA |
| Construction Start Date | 2/1/2024 |
| Operational Year | 2025 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.70 |
| Precipitation (days) | 22.6 |
| Location | 34.174010310321236, -118.86945042284599 |
| County | Ventura |
| City | Thousand Oaks |
| Air District | Ventura County APCD |
| Air Basin | South Central Coast |
| TAZ | 3502 |
| EDFZ | 8 |
| Electric Utility | Southern California Edison |
| Gas Utility | Southern California Gas |
| App Version | 2022.1.1.19 |

## 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 |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Medical Office Building | 58.4 | 1000sqft | 1.34 | 58,412 | 59,005 | — | — | — |
| Parking Lot | 233 | Space | 2.10 | 0.00 | 0.00 | — | — | — |

## 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. | 0.24 | 2.57 | 2.12 | 12.8 | 0.02 | 0.04 | 2.57 | 2.61 | 0.04 | 1.32 | 1.36 | — | 2,326 | 2,326 | 0.10 | 0.03 | 0.09 | 2,337 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.14 | 2.47 | 2.24 | 6.86 | 0.01 | 0.03 | 0.50 | 0.53 | 0.03 | 0.08 | 0.10 | — | 1,422 | 1,422 | 0.06 | 0.02 | < 0.005 | 1,428 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.05 | 0.72 | 0.58 | 2.50 | < 0.005 | 0.01 | 0.11 | 0.12 | 0.01 | 0.04 | 0.05 | — | 422 | 422 | 0.02 | 0.01 | 0.01 | 424 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.01 | 0.13 | 0.11 | 0.46 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 69.8 | 69.8 | < 0.005 | < 0.005 | < 0.005 | 70.3 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.24 | 0.23 | 2.12 | 12.8 | 0.02 | 0.04 | 2.57 | 2.61 | 0.04 | 1.32 | 1.36 | — | 2,326 | 2,326 | 0.10 | 0.03 | 0.09 | 2,337 |
| 2025 | 0.08 | 2.57 | 0.95 | 4.45 | 0.01 | 0.01 | < 0.005 | 0.02 | 0.01 | < 0.005 | 0.01 | — | 661 | 661 | 0.03 | 0.01 | 0.04 | 665 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.14 | 2.47 | 2.24 | 6.86 | 0.01 | 0.03 | 0.50 | 0.53 | 0.03 | 0.08 | 0.10 | — | 1,422 | 1,422 | 0.06 | 0.02 | < 0.005 | 1,428 |
| 2025 | 0.01 | 2.47 | 0.14 | 0.08 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 30.5 | 30.5 | < 0.005 | < 0.005 | < 0.005 | 31.5 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.05 | 0.17 | 0.58 | 2.50 | < 0.005 | 0.01 | 0.11 | 0.12 | 0.01 | 0.04 | 0.05 | — | 422 | 422 | 0.02 | 0.01 | 0.01 | 424 |
| 2025 | 0.02 | 0.72 | 0.19 | 0.98 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 159 | 159 | 0.01 | < 0.005 | 0.01 | 161 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2024 | 0.01 | 0.03 | 0.11 | 0.46 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 69.8 | 69.8 | < 0.005 | < 0.005 | < 0.005 | 70.3 |
| 2025 | < 0.005 | 0.13 | 0.04 | 0.18 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 26.4 | 26.4 | < 0.005 | < 0.005 | < 0.005 | 26.6 |

## 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. | 12.2 | 12.5 | 13.2 | 79.8 | 0.18 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.25 | 354 | 20,013 | 20,367 | 36.3 | 0.80 | 74.0 | 21,587 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 11.6 | 12.0 | 14.2 | 76.1 | 0.17 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.24 | 354 | 19,389 | 19,743 | 36.4 | 0.85 | 3.37 | 20,910 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 8.38 | 9.03 | 8.53 | 56.5 | 0.13 | 0.13 | 12.0 | 12.1 | 0.13 | 3.03 | 3.16 | 354 | 14,836 | 15,190 | 36.2 | 0.64 | 25.1 | 16,311 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.53 | 1.65 | 1.56 | 10.3 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.58 | 58.6 | 2,456 | 2,515 | 5.99 | 0.11 | 4.16 | 2,700 |

## 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 | 10.6 | 9.77 | 8.33 | 74.3 | 0.18 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,915 | 17,915 | 0.76 | 0.74 | 72.5 | 18,229 |
| Area | 0.45 | 1.76 | 0.02 | 2.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.5 |
| Energy | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,559 | 1,559 | 0.14 | 0.01 | — | 1,567 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Stationary | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Vegetation | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Total | 12.2 | 12.5 | 13.2 | 79.8 | 0.18 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.25 | 354 | 20,013 | 20,367 | 36.3 | 0.80 | 74.0 | 21,587 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 10.4 | 9.61 | 9.31 | 73.2 | 0.17 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,302 | 17,302 | 0.82 | 0.80 | 1.88 | 17,562 |
| Area | — | 1.34 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,559 | 1,559 | 0.14 | 0.01 | — | 1,567 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Stationary | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Vegetation | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Total | 11.6 | 12.0 | 14.2 | 76.1 | 0.17 | 0.17 | 16.1 | 16.3 | 0.16 | 4.08 | 4.24 | 354 | 19,389 | 19,743 | 36.4 | 0.85 | 3.37 | 20,910 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 7.81 | 7.20 | 6.88 | 54.2 | 0.13 | 0.10 | 12.0 | 12.1 | 0.09 | 3.03 | 3.13 | — | 13,116 | 13,116 | 0.60 | 0.59 | 23.6 | 13,331 |
| Area | 0.22 | 1.54 | 0.01 | 1.25 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 5.15 | 5.15 | < 0.005 | < 0.005 | — | 5.17 |
| Energy | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,559 | 1,559 | 0.14 | 0.01 | — | 1,567 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Stationary | 0.30 | 0.27 | 1.23 | 0.70 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 140 | 140 | 0.01 | < 0.005 | — | 141 |
| Vegetation | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Total | 8.38 | 9.03 | 8.53 | 56.5 | 0.13 | 0.13 | 12.0 | 12.1 | 0.13 | 3.03 | 3.16 | 354 | 14,836 | 15,190 | 36.2 | 0.64 | 25.1 | 16,311 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.42 | 1.31 | 1.26 | 9.89 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.57 | — | 2,172 | 2,172 | 0.10 | 0.10 | 3.91 | 2,207 |
| Area | 0.04 | 0.28 | < 0.005 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.85 | 0.85 | < 0.005 | < 0.005 | — | 0.86 |
| Energy | 0.01 | < 0.005 | 0.08 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 258 | 258 | 0.02 | < 0.005 | — | 259 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 2.31 | 8.37 | 10.7 | 0.24 | 0.01 | — | 18.3 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 56.3 | 0.00 | 56.3 | 5.63 | 0.00 | — | 197 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stationar | 0.05 | 0.05 | 0.22 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 23.2 | 23.2 | < 0.005 | < 0.005 | — | 23.3 |
| Vegetation | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -5.77 | -5.77 | — | — | — | -5.77 |
| Total | 1.53 | 1.65 | 1.56 | 10.3 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.58 | 58.6 | 2,456 | 2,515 | 5.99 | 0.11 | 4.16 | 2,700 |

# 3. Construction Emissions Details

## 3.1. Demolition-Excavators (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.66 | 0.99 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 142 | 142 | 0.01 | < 0.005 | — | 142 |
| Demolition | — | — | — | — | — | — | 0.46 | 0.46 | — | 0.07 | 0.07 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 5.82 | 5.82 | < 0.005 | < 0.005 | — | 5.84 |
| Demolition | — | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.96 | 0.96 | < 0.005 | < 0.005 | — | 0.97 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.16 | 7.16 | < 0.005 | < 0.005 | < 0.005 | 7.52 |
| Hauling | 0.01 | 0.01 | 0.24 | 0.14 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 35.4 | 35.4 | < 0.005 | 0.01 | < 0.005 | 37.2 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.29 | 0.29 | < 0.005 | < 0.005 | < 0.005 | 0.31 |
| Hauling | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.45 | 1.45 | < 0.005 | < 0.005 | < 0.005 | 1.52 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.05 | 0.05 | < 0.005 | < 0.005 | < 0.005 | 0.05 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.24 | 0.24 | < 0.005 | < 0.005 | < 0.005 | 0.25 |

## 3.3. Demolition-Dozers (2024) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.13 | 0.67 | 6.73 | 0.01 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,378 | 1,378 | 0.06 | 0.01 | — | 1,383 |
| Demolition | — | — | — | — | — | — | 0.50 | 0.50 | — | 0.08 | 0.08 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.26 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 52.9 | 52.9 | < 0.005 | < 0.005 | — | 53.0 |
| Demolition | — | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.75 | 8.75 | < 0.005 | < 0.005 | — | 8.78 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.16 | 7.16 | < 0.005 | < 0.005 | < 0.005 | 7.52 |
| Hauling | 0.01 | 0.01 | 0.17 | 0.10 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 25.3 | 25.3 | < 0.005 | < 0.005 | < 0.005 | 26.6 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.27 | 0.27 | < 0.005 | < 0.005 | < 0.005 | 0.29 |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.97 | 0.97 | < 0.005 | < 0.005 | < 0.005 | 1.02 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.05 | 0.05 | < 0.005 | < 0.005 | < 0.005 | 0.05 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.16 | 0.16 | < 0.005 | < 0.005 | < 0.005 | 0.17 |

## 3.5. Grading-Excavators (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.66 | 0.99 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 142 | 142 | 0.01 | < 0.005 | — | 142 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.02 | 0.02 | 0.66 | 0.99 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 142 | 142 | 0.01 | < 0.005 | — | 142 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.05 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 11.6 | 11.6 | < 0.005 | < 0.005 | — | 11.7 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.93 | 1.93 | < 0.005 | < 0.005 | — | 1.93 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.12 | 7.12 | < 0.005 | < 0.005 | 0.01 | 7.49 |
| Hauling | 0.02 | 0.01 | 0.29 | 0.17 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.2 | 45.2 | 0.01 | 0.01 | 0.04 | 47.5 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.05 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.16 | 7.16 | < 0.005 | < 0.005 | < 0.005 | 7.52 |
| Hauling | 0.02 | 0.01 | 0.30 | 0.18 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.5 | 45.5 | 0.01 | 0.01 | < 0.005 | 47.8 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.59 | 0.59 | < 0.005 | < 0.005 | < 0.005 | 0.62 |
| Hauling | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.73 | 3.73 | < 0.005 | < 0.005 | < 0.005 | 3.92 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | 0.10 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.62 | 0.62 | < 0.005 | < 0.005 | < 0.005 | 0.65 |

## 3.7. Grading-Dozers (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.13 | 0.67 | 6.73 | 0.01 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,378 | 1,378 | 0.06 | 0.01 | — | 1,383 |
| Dust From Material Movement | — | — | — | — | — | — | 2.56 | 2.56 | — | 1.31 | 1.31 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.18 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 37.8 | 37.8 | < 0.005 | < 0.005 | — | 37.9 |
| Dust From Material Movement | — | — | — | — | — | — | 0.07 | 0.07 | — | 0.04 | 0.04 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 6.25 | 6.25 | < 0.005 | < 0.005 | — | 6.27 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.12 | 7.12 | < 0.005 | < 0.005 | 0.01 | 7.49 |
| Hauling | 0.02 | 0.01 | 0.29 | 0.17 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.2 | 45.2 | 0.01 | 0.01 | 0.04 | 47.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.20 | 0.20 | < 0.005 | < 0.005 | < 0.005 | 0.21 |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.24 | 1.24 | < 0.005 | < 0.005 | < 0.005 | 1.31 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.03 | 0.03 | < 0.005 | < 0.005 | < 0.005 | 0.03 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.21 | 0.21 | < 0.005 | < 0.005 | < 0.005 | 0.22 |

## 3.9. Grading-Tractors (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08 | 0.08 | 0.43 | 6.08 | 0.01 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 871 | 871 | 0.04 | 0.01 | — | 874 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.06 | 0.83 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 119 | 119 | < 0.005 | < 0.005 | — | 120 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.15 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 19.8 | 19.8 | < 0.005 | < 0.005 | — | 19.8 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.12 | 7.12 | < 0.005 | < 0.005 | 0.01 | 7.49 |
| Hauling | 0.02 | 0.01 | 0.29 | 0.17 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 45.2 | 45.2 | 0.01 | 0.01 | 0.04 | 47.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.98 | 0.98 | < 0.005 | < 0.005 | < 0.005 | 1.03 |
| Hauling | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.21 | 6.21 | < 0.005 | < 0.005 | < 0.005 | 6.53 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.16 | 0.16 | < 0.005 | < 0.005 | < 0.005 | 0.17 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.03 | 1.03 | < 0.005 | < 0.005 | < 0.005 | 1.08 |

## 3.11. Building Construction-Cranes (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08 | 0.08 | 0.43 | 4.27 | 0.01 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 866 | 866 | 0.04 | 0.01 | — | 869 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 47.5 | 47.5 | < 0.005 | < 0.005 | — | 47.6 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.86 | 7.86 | < 0.005 | < 0.005 | — | 7.89 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.01 | < 0.005 | 0.11 | 0.07 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.8 | 17.8 | < 0.005 | < 0.005 | 0.02 | 18.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.98 | 0.98 | < 0.005 | < 0.005 | < 0.005 | 1.03 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.16 | 0.16 | < 0.005 | < 0.005 | < 0.005 | 0.17 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.13. Building Construction-Forklift (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.15 | 2.14 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 305 | 305 | 0.01 | < 0.005 | — | 306 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 11.7 | 11.7 | < 0.005 | < 0.005 | — | 11.7 |
| 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 | — | 1.94 | 1.94 | < 0.005 | < 0.005 | — | 1.94 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.01 | < 0.005 | 0.11 | 0.07 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.8 | 17.8 | < 0.005 | < 0.005 | 0.02 | 18.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.68 | 0.68 | < 0.005 | < 0.005 | < 0.005 | 0.72 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.11 | 0.11 | < 0.005 | < 0.005 | < 0.005 | 0.12 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.15. Building Construction-Tractor (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.12 | 1.77 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 254 | 254 | 0.01 | < 0.005 | — | 255 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.03 | 0.44 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 62.7 | 62.7 | < 0.005 | < 0.005 | — | 62.9 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.4 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.01 | < 0.005 | 0.11 | 0.07 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.8 | 17.8 | < 0.005 | < 0.005 | 0.02 | 18.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.40 | 4.40 | < 0.005 | < 0.005 | < 0.005 | 4.62 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.73 | 0.73 | < 0.005 | < 0.005 | < 0.005 | 0.77 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.17. Building Construction-Welders (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.07 | 0.07 | 2.01 | 2.99 | 0.01 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 415 | 415 | 0.02 | < 0.005 | — | 416 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.07 | 0.07 | 2.01 | 2.99 | 0.01 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 415 | 415 | 0.02 | < 0.005 | — | 416 |
| 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 | 0.01 | 0.01 | 0.17 | 0.25 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 34.1 | 34.1 | < 0.005 | < 0.005 | — | 34.2 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 5.65 | 5.65 | < 0.005 | < 0.005 | — | 5.67 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.01 | < 0.005 | 0.11 | 0.07 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.8 | 17.8 | < 0.005 | < 0.005 | 0.02 | 18.7 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.01 | < 0.005 | 0.12 | 0.07 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.9 | 17.9 | < 0.005 | < 0.005 | < 0.005 | 18.8 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.47 | 1.47 | < 0.005 | < 0.005 | < 0.005 | 1.54 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.24 | 0.24 | < 0.005 | < 0.005 | < 0.005 | 0.26 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.19. Building Construction-No Equipment (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.01 | < 0.005 | 0.12 | 0.07 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.9 | 17.9 | < 0.005 | < 0.005 | < 0.005 | 18.8 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.31 | 3.31 | < 0.005 | < 0.005 | < 0.005 | 3.48 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.55 | 0.55 | < 0.005 | < 0.005 | < 0.005 | 0.58 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.21. Building Construction-No Equipment (2025) - Unmitigated

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

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

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.01 | < 0.005 | 0.11 | 0.06 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.5 | 17.5 | < 0.005 | < 0.005 | 0.02 | 18.4 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.01 | < 0.005 | 0.11 | 0.07 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 17.7 | 17.7 | < 0.005 | < 0.005 | < 0.005 | 18.5 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.06 | 0.04 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 9.95 | 9.95 | < 0.005 | < 0.005 | 0.01 | 10.4 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 1.65 | 1.65 | < 0.005 | < 0.005 | < 0.005 | 1.73 |
| 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 |

## 3.23. Paving-Tractors (2025) - Unmitigated

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

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

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.03 | 0.03 | 0.14 | 2.03 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 290 | 290 | 0.01 | < 0.005 | — | 291 |
| Paving | — | 0.05 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.04 | 0.63 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 89.9 | 89.9 | < 0.005 | < 0.005 | — | 90.2 |
| Paving | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 14.9 | 14.9 | < 0.005 | < 0.005 | — | 14.9 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.02 | 7.02 | < 0.005 | < 0.005 | 0.01 | 7.36 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 2.18 | 2.18 | < 0.005 | < 0.005 | < 0.005 | 2.28 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.36 | 0.36 | < 0.005 | < 0.005 | < 0.005 | 0.38 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.25. Paving-Pavers (2025) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.08 | 1.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 158 | 158 | 0.01 | < 0.005 | — | 159 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.6 | 15.6 | < 0.005 | < 0.005 | — | 15.6 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.58 | 2.58 | < 0.005 | < 0.005 | — | 2.59 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.02 | 7.02 | < 0.005 | < 0.005 | 0.01 | 7.36 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.69 | 0.69 | < 0.005 | < 0.005 | < 0.005 | 0.73 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.11 | 0.11 | < 0.005 | < 0.005 | < 0.005 | 0.12 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.27. Paving-Paving Equipment/Rollers (2025) - Unmitigated

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

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

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.04 | 0.04 | 0.61 | 2.31 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 330 | 330 | 0.01 | < 0.005 | — | 331 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.05 | 0.19 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 27.1 | 27.1 | < 0.005 | < 0.005 | — | 27.2 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.49 | 4.49 | < 0.005 | < 0.005 | — | 4.50 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.02 | 7.02 | < 0.005 | < 0.005 | 0.01 | 7.36 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.58 | 0.58 | < 0.005 | < 0.005 | < 0.005 | 0.61 |
| 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 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | 0.10 |
| 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 |

## 3.29. Architectural Coating (2024) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 2.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.12 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.58 | 3.58 | < 0.005 | < 0.005 | < 0.005 | 3.76 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.18 | 0.18 | < 0.005 | < 0.005 | < 0.005 | 0.18 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.03 | 0.03 | < 0.005 | < 0.005 | < 0.005 | 0.03 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.31. Architectural Coating (2025) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | — | 2.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 2.47 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.69 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.13 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.51 | 3.51 | < 0.005 | < 0.005 | < 0.005 | 3.68 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.53 | 3.53 | < 0.005 | < 0.005 | < 0.005 | 3.70 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.98 | 0.98 | < 0.005 | < 0.005 | < 0.005 | 1.03 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.16 | 0.16 | < 0.005 | < 0.005 | < 0.005 | 0.17 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 10.6 | 9.77 | 8.33 | 74.3 | 0.18 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,915 | 17,915 | 0.76 | 0.74 | 72.5 | 18,229 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| Total | 10.6 | 9.77 | 8.33 | 74.3 | 0.18 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,915 | 17,915 | 0.76 | 0.74 | 72.5 | 18,229 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 10.4 | 9.61 | 9.31 | 73.2 | 0.17 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,302 | 17,302 | 0.82 | 0.80 | 1.88 | 17,562 |
| 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 |
| Total | 10.4 | 9.61 | 9.31 | 73.2 | 0.17 | 0.13 | 16.1 | 16.2 | 0.12 | 4.08 | 4.20 | — | 17,302 | 17,302 | 0.82 | 0.80 | 1.88 | 17,562 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 1.42 | 1.31 | 1.26 | 9.89 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.57 | — | 2,172 | 2,172 | 0.10 | 0.10 | 3.91 | 2,207 |
| 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 |
| Total | 1.42 | 1.31 | 1.26 | 9.89 | 0.02 | 0.02 | 2.18 | 2.20 | 0.02 | 0.55 | 0.57 | — | 2,172 | 2,172 | 0.10 | 0.10 | 3.91 | 2,207 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 986 | 986 | 0.09 | 0.01 | — | 991 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 76.4 | 76.4 | 0.01 | < 0.005 | — | 76.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,062 | 1,062 | 0.10 | 0.01 | — | 1,068 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 986 | 986 | 0.09 | 0.01 | — | 991 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 76.4 | 76.4 | 0.01 | < 0.005 | — | 76.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,062 | 1,062 | 0.10 | 0.01 | — | 1,068 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 163 | 163 | 0.02 | < 0.005 | — | 164 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 12.7 | 12.7 | < 0.005 | < 0.005 | — | 12.7 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 176 | 176 | 0.02 | < 0.005 | — | 177 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 497 | 497 | 0.04 | < 0.005 | — | 498 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | 0.01 | < 0.005 | 0.08 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 82.3 | 82.3 | 0.01 | < 0.005 | — | 82.5 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.01 | < 0.005 | 0.08 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 82.3 | 82.3 | 0.01 | < 0.005 | — | 82.5 |

## 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 | — | 1.26 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.08 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Landscape Equipme | 0.45 | 0.42 | 0.02 | 2.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.5 |
| Total | 0.45 | 1.76 | 0.02 | 2.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | — | 10.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 1.26 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.08 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | 1.34 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 0.23 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.04 | 0.04 | < 0.005 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.85 | 0.85 | < 0.005 | < 0.005 | — | 0.86 |
| Total | 0.04 | 0.28 | < 0.005 | 0.23 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.85 | 0.85 | < 0.005 | < 0.005 | — | 0.86 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 13.9 | 50.6 | 64.5 | 1.43 | 0.03 | — | 111 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 2.31 | 8.37 | 10.7 | 0.24 | 0.01 | — | 18.3 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 2.31 | 8.37 | 10.7 | 0.24 | 0.01 | — | 18.3 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 340 | 0.00 | 340 | 34.0 | 0.00 | — | 1,190 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | 56.3 | 0.00 | 56.3 | 5.63 | 0.00 | — | 197 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 56.3 | 0.00 | 56.3 | 5.63 | 0.00 | — | 197 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.49 | 1.49 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Medical Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.25 | 0.25 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Emergency Generator | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Total | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Emergency Generator | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Total | 1.10 | 1.00 | 4.48 | 2.55 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 512 | 512 | 0.02 | < 0.005 | — | 514 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Emergency Generato | 0.05 | 0.05 | 0.22 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 23.2 | 23.2 | < 0.005 | < 0.005 | — | 23.3 |
| Total | 0.05 | 0.05 | 0.22 | 0.13 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 23.2 | 23.2 | < 0.005 | < 0.005 | — | 23.3 |

## 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coastal Live Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.91 | -0.91 | — | — | — | -0.91 |
| Live Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.17 | 0.17 | — | — | — | 0.17 |
| Northern Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.14 | 0.14 | — | — | — | 0.14 |
| Valley Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -4.44 | -4.44 | — | — | — | -4.44 |
| Strawberry Tree | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -2.27 | -2.27 | — | — | — | -2.27 |
| Brisbane Box | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -1.14 | -1.14 | — | — | — | -1.14 |
| Subtotal | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -8.45 | -8.45 | — | — | — | -8.45 |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | -1.31 | -1.31 | — | — | — | -1.31 |
| Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | 2.00 | 2.00 | — | — | — | 2.00 |
| Northern Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.47 | 0.47 | — | — | — | 0.47 |
| Valley Oak | — | — | — | — | — | — | — | — | — | — | — | — | -18.7 | -18.7 | — | — | — | -18.7 |
| Strawberry Tree | — | — | — | — | — | — | — | — | — | — | — | — | -3.04 | -3.04 | — | — | — | -3.04 |
| Brisbane Box | — | — | — | — | — | — | — | — | — | — | — | — | -5.85 | -5.85 | — | — | — | -5.85 |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | -26.4 | -26.4 | — | — | — | -26.4 |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Live Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Northern Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Valley Oak | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Strawberry Tree | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Brisbane Box | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Subtotal | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.91 | -0.91 | — | — | — | -0.91 |
| Live Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.17 | 0.17 | — | — | — | 0.17 |
| Northern Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.14 | 0.14 | — | — | — | 0.14 |
| Valley Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -4.44 | -4.44 | — | — | — | -4.44 |
| Strawberry Tree | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -2.27 | -2.27 | — | — | — | -2.27 |
| Brisbane Box | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -1.14 | -1.14 | — | — | — | -1.14 |
| Subtotal | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -8.45 | -8.45 | — | — | — | -8.45 |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | -1.31 | -1.31 | — | — | — | -1.31 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | 2.00 | 2.00 | — | — | — | 2.00 |
| Northern Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.47 | 0.47 | — | — | — | 0.47 |
| Valley Oak | — | — | — | — | — | — | — | — | — | — | — | — | -18.7 | -18.7 | — | — | — | -18.7 |
| Strawberry Tree | — | — | — | — | — | — | — | — | — | — | — | — | -3.04 | -3.04 | — | — | — | -3.04 |
| Brisbane Box | — | — | — | — | — | — | — | — | — | — | — | — | -5.85 | -5.85 | — | — | — | -5.85 |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | -26.4 | -26.4 | — | — | — | -26.4 |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Live Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Northern Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Valley Oak | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Strawberry Tree | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Brisbane Box | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Subtotal | — | — | -0.01 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | > -0.005 | -0.01 | — | > -0.005 | -0.01 | -0.01 | -0.01 | > -0.005 | > -0.005 | > -0.005 | — | -34.9 | -34.9 | — | — | — | -34.9 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.15 | -0.15 | — | — | — | -0.15 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Live Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.03 | 0.03 | — | — | — | 0.03 |
| Northern Oak | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.02 | 0.02 | — | — | — | 0.02 |
| Valley Oak | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.74 | -0.74 | — | — | — | -0.74 |
| Strawberry Tree | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.38 | -0.38 | — | — | — | -0.38 |
| Brisbane Box | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -0.19 | -0.19 | — | — | — | -0.19 |
| Subtotal | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -1.40 | -1.40 | — | — | — | -1.40 |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | -0.22 | -0.22 | — | — | — | -0.22 |
| Live Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.33 | 0.33 | — | — | — | 0.33 |
| Northern Oak | — | — | — | — | — | — | — | — | — | — | — | — | 0.08 | 0.08 | — | — | — | 0.08 |
| Valley Oak | — | — | — | — | — | — | — | — | — | — | — | — | -3.09 | -3.09 | — | — | — | -3.09 |
| Strawberry Tree | — | — | — | — | — | — | — | — | — | — | — | — | -0.50 | -0.50 | — | — | — | -0.50 |
| Brisbane Box | — | — | — | — | — | — | — | — | — | — | — | — | -0.97 | -0.97 | — | — | — | -0.97 |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | -4.37 | -4.37 | — | — | — | -4.37 |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Coastal Live Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Live Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Northern Oak | — | — | < 0.005 | — | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Valley Oak | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Strawberry Tree | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Brisbane Box | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| Subtotal | — | — | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | > -0.005 | > -0.005 | — | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | > -0.005 | — | -5.77 | -5.77 | — | — | — | -5.77 |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Demolition-Excavators | Demolition | 2/1/2024 | 2/17/2024 | 6.00 | 15.0 | — |
| Demolition-Dozers | Demolition | 2/18/2024 | 3/5/2024 | 6.00 | 14.0 | — |
| Grading-Excavators | Grading | 3/6/2024 | 4/9/2024 | 6.00 | 30.0 | — |
| Grading-Dozers | Grading | 4/10/2024 | 4/20/2024 | 6.00 | 10.0 | — |
| Grading-Tractors | Grading | 4/21/2024 | 6/18/2024 | 6.00 | 50.0 | — |
| Building Construction-Cranes | Building Construction | 4/19/2024 | 5/11/2024 | 6.00 | 20.0 | — |
| Building Construction-Forklift | Building Construction | 5/11/2024 | 5/27/2024 | 6.00 | 14.0 | — |
| Building Construction-Tractor | Building Construction | 5/28/2024 | 9/9/2024 | 6.00 | 90.0 | — |
| Building Construction-Welders | Building Construction | 9/10/2024 | 10/14/2024 | 6.00 | 30.0 | — |
| Building Construction-No Equipment | Building Construction | 10/14/2024 | 8/29/2025 | 6.00 | 275 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| Paving-Tractors | Paving | 4/10/2025 | 8/19/2025 | 6.00 | 113 | — |
| Paving-Pavers | Paving | 4/10/2025 | 5/21/2025 | 6.00 | 36.0 | — |
| Paving-Paving Equipment/Rollers | Paving | 5/22/2025 | 6/25/2025 | 6.00 | 30.0 | — |
| Architectural Coating | Architectural Coating | 12/11/2024 | 4/29/2025 | 6.00 | 120 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Demolition-Excavators | Excavators | Diesel | Tier 4 Final | 1.00 | 8.00 | 36.0 | 0.38 |
| Demolition-Dozers | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Grading-Excavators | Excavators | Diesel | Tier 4 Final | 1.00 | 8.00 | 36.0 | 0.38 |
| Grading-Dozers | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Grading-Tractors | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 3.00 | 8.00 | 84.0 | 0.37 |
| Building Construction-Cranes | Cranes | Diesel | Tier 4 Final | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction-Forklift | Forklifts | Diesel | Tier 4 Final | 2.00 | 8.00 | 82.0 | 0.20 |
| Building Construction-Tractor | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 7.00 | 84.0 | 0.37 |
| Building Construction-Welders | Welders | Diesel | Tier 4 Final | 2.00 | 8.00 | 46.0 | 0.45 |
| Paving-Tractors | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving-Pavers | Pavers | Diesel | Tier 4 Final | 1.00 | 4.00 | 81.0 | 0.42 |
| Paving-Paving Equipment/Rollers | Paving Equipment | Diesel | Tier 4 Final | 1.00 | 6.00 | 89.0 | 0.36 |
| Paving-Paving Equipment/Rollers | Rollers | Diesel | Tier 4 Final | 1.00 | 6.00 | 36.0 | 0.38 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Demolition-Excavators | — | — | — | — |
| Demolition-Excavators | Worker | 0.00 | 0.00 | LDA,LDT1,LDT2 |
| Demolition-Excavators | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Demolition-Excavators | Hauling | 14.0 | 0.25 | HHDT |
| Demolition-Excavators | Onsite truck | — | — | HHDT |
| Grading-Excavators | — | — | — | — |
| Grading-Excavators | Worker | 0.00 | 0.00 | LDA,LDT1,LDT2 |
| Grading-Excavators | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Grading-Excavators | Hauling | 18.0 | 0.25 | HHDT |
| Grading-Excavators | Onsite truck | — | — | HHDT |
| Building Construction-Cranes | — | — | — | — |
| Building Construction-Cranes | Worker | 0.00 | 0.00 | LDA,LDT1,LDT2 |
| Building Construction-Cranes | Vendor | 10.0 | 0.25 | HHDT,MHDT |
| Building Construction-Cranes | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Cranes | Onsite truck | — | — | HHDT |
| Paving-Tractors | — | — | — | — |
| Paving-Tractors | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Paving-Tractors | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Paving-Tractors | Hauling | 0.00 | 20.0 | HHDT |
| Paving-Tractors | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 2.00 | 0.25 | HHDT,MHDT |

| | | | | |
|---|---|---|---|---|
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |
| Demolition-Dozers | — | — | — | — |
| Demolition-Dozers | Worker | 0.00 | 0.00 | LDA,LDT1,LDT2 |
| Demolition-Dozers | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Demolition-Dozers | Hauling | 10.0 | 0.25 | HHDT |
| Demolition-Dozers | Onsite truck | — | — | HHDT |
| Grading-Dozers | — | — | — | — |
| Grading-Dozers | Worker | 0.00 | 0.00 | LDA,LDT1,LDT2 |
| Grading-Dozers | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Grading-Dozers | Hauling | 18.0 | 0.25 | HHDT |
| Grading-Dozers | Onsite truck | — | — | HHDT |
| Grading-Tractors | — | — | — | — |
| Grading-Tractors | Worker | 0.00 | 0.00 | LDA,LDT1,LDT2 |
| Grading-Tractors | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Grading-Tractors | Hauling | 18.0 | 0.25 | HHDT |
| Grading-Tractors | Onsite truck | — | — | HHDT |
| Building Construction-Forklift | — | — | — | — |
| Building Construction-Forklift | Worker | 0.00 | 0.00 | LDA,LDT1,LDT2 |
| Building Construction-Forklift | Vendor | 10.0 | 0.25 | HHDT,MHDT |
| Building Construction-Forklift | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Forklift | Onsite truck | — | — | HHDT |
| Building Construction-Tractor | — | — | — | — |
| Building Construction-Tractor | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-Tractor | Vendor | 10.0 | 0.25 | HHDT,MHDT |
| Building Construction-Tractor | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Tractor | Onsite truck | — | — | HHDT |

| | | | | |
|---|---|---|---|---|
| Building Construction-Welders | — | — | — | — |
| Building Construction-Welders | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-Welders | Vendor | 10.0 | 0.25 | HHDT,MHDT |
| Building Construction-Welders | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-Welders | Onsite truck | — | — | HHDT |
| Building Construction-No Equipment | — | — | — | — |
| Building Construction-No Equipment | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction-No Equipment | Vendor | 10.0 | 0.25 | HHDT,MHDT |
| Building Construction-No Equipment | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction-No Equipment | Onsite truck | — | — | HHDT |
| Paving-Pavers | — | — | — | — |
| Paving-Pavers | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Paving-Pavers | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Paving-Pavers | Hauling | 0.00 | 20.0 | HHDT |
| Paving-Pavers | Onsite truck | — | — | HHDT |
| Paving-Paving Equipment/Rollers | — | — | — | — |
| Paving-Paving Equipment/Rollers | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Paving-Paving Equipment/Rollers | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Paving-Paving Equipment/Rollers | Hauling | 0.00 | 20.0 | HHDT |
| Paving-Paving Equipment/Rollers | Onsite truck | — | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |
| Limit vehicle speeds on unpaved roads to 25 mph | 44% | 44% |

## 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 | 87,618 | 29,206 | 5,481 |

## 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 (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Demolition-Excavators | 0.00 | 0.00 | 0.00 | 500 | — |
| Demolition-Dozers | 0.00 | 0.00 | 0.00 | 500 | — |
| Grading-Excavators | — | 4,156 | 8.00 | 0.00 | — |
| Grading-Dozers | — | 1,386 | 5.00 | 0.00 | — |
| Grading-Tractors | — | 6,928 | 0.00 | 0.00 | — |
| Paving-Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 |
| Paving-Pavers | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 |
| Paving-Paving Equipment/Rollers | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 |

### 5.6.2. Construction Earthmoving Control Strategies

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

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|

| | | |
|---|---|---|
| Medical Office Building | 0.00 | 0% |
| Parking Lot | 2.10 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2024 | 11,912 | 349 | 0.03 | < 0.005 |
| 2025 | 12,994 | 349 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Medical Office Building | 2,103 | 501 | 82.9 | 578,666 | 22,767 | 5,420 | 898 | 6,265,124 |
| Parking Lot | 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 | 87,618 | 29,206 | 5,481 |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

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

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Medical Office Building | 1,032,019 | 349 | 0.0330 | 0.0040 | 1,550,900 |
| Parking Lot | 80,018 | 349 | 0.0330 | 0.0040 | 0.00 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Medical Office Building | 7,277,871 | 642,405 |
| Parking Lot | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Medical Office Building | 631 | — |
| Parking Lot | 0.00 | — |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Medical Office Building | Household refrigerators and/or freezers | R-134a | 1,430 | 0.45 | 0.60 | 0.00 | 1.00 |
| Medical 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 |
|---|---|---|---|---|---|---|
| Emergency Generator | Diesel | 1.00 | 0.50 | 50.0 | 1,220 | 0.73 |

### 5.16.2. Process Boilers

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

## 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) |
|---|---|---|---|
| Coastal Live Oak | 17.0 | 29,761 | 137 |
| Valley Oak | 28.0 | 49,626 | 160 |
| Strawberry Tree | 11.0 | 21,437 | 103 |
| Brisbane Box | 10.0 | 12,734 | 40.7 |
| Coastal Live Oak | -12.0 | 21,008 | 96.7 |
| Live Oak | -2.00 | 1,794 | 6.70 |
| Northern Oak | -1.00 | 1,612 | 5.20 |

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

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

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 14.8 | annual days of extreme heat |
| Extreme Precipitation | 6.90 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 25.7 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

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

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

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

### 6.3. Adjusted Climate Risk Scores

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

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

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

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

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 55.4 |
| AQ-PM | 40.4 |
| AQ-DPM | 30.9 |

| | |
|---|---|
| Drinking Water | 58.8 |
| Lead Risk Housing | 13.4 |
| Pesticides | 11.0 |
| Toxic Releases | 29.0 |
| Traffic | 95.1 |
| Effect Indicators | — |
| CleanUp Sites | 17.1 |
| Groundwater | 0.00 |
| Haz Waste Facilities/Generators | 56.4 |
| Impaired Water Bodies | 87.0 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 3.38 |
| Cardio-vascular | 11.9 |
| Low Birth Weights | 48.8 |
| Socioeconomic Factor Indicators | — |
| Education | 21.4 |
| Housing | 41.9 |
| Linguistic | 32.0 |
| Poverty | 17.7 |
| Unemployment | 0.91 |

## 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 | 73.32221224 |

| | |
|---|---|
| Employed | 78.07006288 |
| Median HI | 82.43295265 |
| Education | — |
| Bachelor's or higher | 84.01129219 |
| High school enrollment | 100 |
| Preschool enrollment | 1.873476197 |
| Transportation | — |
| Auto Access | 81.29090209 |
| Active commuting | 11.85679456 |
| Social | — |
| 2-parent households | 50.09624022 |
| Voting | 89.33658411 |
| Neighborhood | — |
| Alcohol availability | 87.69408443 |
| Park access | 81.35506224 |
| Retail density | 15.78339535 |
| Supermarket access | 12.11343513 |
| Tree canopy | 83.9727961 |
| Housing | — |
| Homeownership | 61.20877711 |
| Housing habitability | 74.31027846 |
| Low-inc homeowner severe housing cost burden | 43.26960092 |
| Low-inc renter severe housing cost burden | 58.09059412 |
| Uncrowded housing | 96.93314513 |
| Health Outcomes | — |
| Insured adults | 41.5629411 |
| Arthritis | 25.8 |

| | |
|---|---|
| Asthma ER Admissions | 95.0 |
| High Blood Pressure | 14.3 |
| Cancer (excluding skin) | 10.4 |
| Asthma | 65.7 |
| Coronary Heart Disease | 37.1 |
| Chronic Obstructive Pulmonary Disease | 56.7 |
| Diagnosed Diabetes | 79.4 |
| Life Expectancy at Birth | 83.3 |
| Cognitively Disabled | 62.4 |
| Physically Disabled | 98.1 |
| Heart Attack ER Admissions | 76.7 |
| Mental Health Not Good | 82.3 |
| Chronic Kidney Disease | 55.3 |
| Obesity | 74.1 |
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 78.6 |
| Stroke | 64.5 |
| Health Risk Behaviors | — |
| Binge Drinking | 33.9 |
| Current Smoker | 84.4 |
| No Leisure Time for Physical Activity | 83.8 |
| Climate Change Exposures | — |
| Wildfire Risk | 81.0 |
| SLR Inundation Area | 0.0 |
| Children | 67.0 |
| Elderly | 30.9 |
| English Speaking | 83.7 |

| | |
|---|---|
| Foreign-born | 30.1 |
| Outdoor Workers | 33.4 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 90.0 |
| Traffic Density | 90.1 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 29.1 |
| Other Decision Support | — |
| 2016 Voting | 94.8 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 15.0 |
| Healthy Places Index Score for Project Location (b) | 72.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

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

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Construction: Trips and VMT | Trips were rounded up to account for whole round trips. |
| Operations: Vehicle Data | Weekday trips revised to match traffic and parking study. |
| Operations: Water and Waste Water | Based on landscaping plan. |
| Operations: Generators + Pumps EF | Generator includes a Level 3 diesel particulate filter. |
| Operations: Emergency Generators and Fire Pumps | 1,220 horsepower Tier 2 with DPF. |
| Construction: Off-Road Equipment | Based on applicant provided information. |
| Construction: Dust From Material Movement | Based on applicant provided information. |
| Construction: Electricity | Based on estimated electricity use during construction. |
| Land Use | Based on project description |
| Construction: Construction Phases | Based on applicant provided information. |

```
** Lakes Environmental AERMOD MPI
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 7/19/2023
** File: C:\Users\apoll\Desktop\HRAs\LRCCC and Janss\LRCCC and Janss.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
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   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   POLLUTID SO2
   RUNORNOT RUN
   ERRORFIL "LRCCC and Janss.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
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SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** --------------------------------------------------------------------
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** PREFIX
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   SRCPARAM L0000071     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000072     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000073     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000074     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000075     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000076     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000077     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000078     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000079     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000080     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000081     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000082     0.0120481928      3.40      4.00      3.16
   SRCPARAM L0000083     0.0120481928      3.40      4.00      3.16
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000084     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000085     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000086     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000087     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000088     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000089     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000090     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000091     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000092     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000093     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000094     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000095     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000096     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000097     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000098     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000099     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000100     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000101     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000102     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000103     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000104     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000105     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000106     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000107     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000108     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000109     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000110     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000111     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000112     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000113     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000114     0.0181818182      3.40      4.00      3.16
```

```
   SRCPARAM L0000115     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000116     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000117     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000118     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000119     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000120     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000121     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000122     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000123     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000124     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000125     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000126     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000127     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000128     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000129     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000130     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000131     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000132     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000133     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000134     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000135     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000136     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000137     0.0181818182      3.40      4.00      3.16
   SRCPARAM L0000138     0.0181818182      3.40      4.00      3.16
** ----------------------------------------------------------------------
   SRCGROUP SLINE1   L0000001 L0000002 L0000003 L0000004 L0000005 L0000006
   SRCGROUP SLINE1   L0000007 L0000008 L0000009 L0000010 L0000011 L0000012
   SRCGROUP SLINE1   L0000013 L0000014 L0000015 L0000016 L0000017 L0000018
   SRCGROUP SLINE1   L0000019 L0000020 L0000021 L0000022 L0000023 L0000024
   SRCGROUP SLINE1   L0000025 L0000026 L0000027 L0000028 L0000029 L0000030
   SRCGROUP SLINE1   L0000031 L0000032 L0000033 L0000034 L0000035 L0000036
   SRCGROUP SLINE1   L0000037 L0000038 L0000039 L0000040 L0000041 L0000042
   SRCGROUP SLINE1   L0000043 L0000044 L0000045 L0000046 L0000047 L0000048
   SRCGROUP SLINE1   L0000049 L0000050 L0000051 L0000052 L0000053 L0000054
   SRCGROUP SLINE1   L0000055 L0000056 L0000057 L0000058 L0000059 L0000060
   SRCGROUP SLINE1   L0000061 L0000062 L0000063 L0000064 L0000065 L0000066
   SRCGROUP SLINE1   L0000067 L0000068 L0000069 L0000070 L0000071 L0000072
   SRCGROUP SLINE1   L0000073 L0000074 L0000075 L0000076 L0000077 L0000078
   SRCGROUP SLINE1   L0000079 L0000080 L0000081 L0000082 L0000083
   SRCGROUP SLINE2   L0000084 L0000085 L0000086 L0000087 L0000088 L0000089
   SRCGROUP SLINE2   L0000090 L0000091 L0000092 L0000093 L0000094 L0000095
   SRCGROUP SLINE2   L0000096 L0000097 L0000098 L0000099 L0000100 L0000101
   SRCGROUP SLINE2   L0000102 L0000103 L0000104 L0000105 L0000106 L0000107
   SRCGROUP SLINE2   L0000108 L0000109 L0000110 L0000111 L0000112 L0000113
   SRCGROUP SLINE2   L0000114 L0000115 L0000116 L0000117 L0000118 L0000119
   SRCGROUP SLINE2   L0000120 L0000121 L0000122 L0000123 L0000124 L0000125
   SRCGROUP SLINE2   L0000126 L0000127 L0000128 L0000129 L0000130 L0000131
   SRCGROUP SLINE2   L0000132 L0000133 L0000134 L0000135 L0000136 L0000137
   SRCGROUP SLINE2   L0000138
   SRCGROUP ALL
```

```
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "LRCCC and Janss.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "..\Los Robles Medical Center\Thousand-Oaks-2015-2019\2015-2019 Thousand
Oaks.SFC"
   PROFFILE "..\Los Robles Medical Center\Thousand-Oaks-2015-2019\2015-2019 Thousand
Oaks.PFL"
   SURFDATA 23130 2015
   UAIRDATA 93214 2015
   SITEDATA 56435 2015
   PROFBASE 247.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "LRCCC and Janss.AD\01H1GALL.PLT" 31
   PLOTFILE 1 SLINE1 1ST "LRCCC and Janss.AD\01H1G001.PLT" 32
   PLOTFILE 1 SLINE2 1ST "LRCCC and Janss.AD\01H1G002.PLT" 33
   PLOTFILE PERIOD ALL "LRCCC and Janss.AD\PE00GALL.PLT" 34
   PLOTFILE PERIOD SLINE1 "LRCCC and Janss.AD\PE00G001.PLT" 35
   PLOTFILE PERIOD SLINE2 "LRCCC and Janss.AD\PE00G002.PLT" 36
   SUMMFILE "LRCCC and Janss.sum"
OU FINISHED


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

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

```
 A Total of          0 Fatal Error Message(s)
 A Total of          2 Warning Message(s)
 A Total of          0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 CO W361      25       COCARD: Multiyear PERIOD/ANNUAL values for NO2/SO2 require
MULTYEAR Opt
 MX W403     423       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

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

↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HRAs\LRCCC and
Janss\LRCCC and Janss.isc      ***        07/19/23
 *** AERMET - VERSION  21112 ***   ***
                       ***       09:21:45

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                            ***     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:
```

```
         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:  SO2

 **Note that special processing requirements apply for the 1-hour SO2 NAAQS - check
available guidance.
   Model will process user-specified ranks of daily maximum 1-hour values averaged
across the number of years modeled.

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

 **This Run Includes:    138 Source(s);       3 Source Group(s); and      62
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    138 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 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:  21112

 **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)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
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) =   247.00 ;  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 = 3.6 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: LRCCC and Janss.err

**File for Summary of Results: LRCCC and Janss.sum



*** MODELOPTs: RegDFAULT CONC ELEV RURAL SigA Data

*** VOLUME SOURCE DATA ***

| SOURCE ID | NUMBER PART. CATS. | EMISSION RATE (GRAMS/SEC) | X (METERS) | Y (METERS) | BASE ELEV. (METERS) | RELEASE HEIGHT (METERS) | INIT. SY (METERS) | INIT. SZ (METERS) | URBAN SOURCE | EMISSION RATE SCALAR VARY BY |
|---|---|---|---|---|---|---|---|---|---|---|
| L0000001 | 0 | 0.12048E-01 | 327672.8 | 3783031.3 | 248.0 | 3.40 | 4.00 | 3.16 | NO | |
| L0000002 | 0 | 0.12048E-01 | 327673.6 | 3783022.7 | 248.4 | 3.40 | 4.00 | 3.16 | NO | |
| L0000003 | 0 | 0.12048E-01 | 327674.4 | 3783014.1 | 248.8 | 3.40 | 4.00 | 3.16 | NO | |
| L0000004 | 0 | 0.12048E-01 | 327676.7 | 3783005.9 | 249.2 | 3.40 | 4.00 | 3.16 | NO | |
| L0000005 | 0 | 0.12048E-01 | 327679.7 | 3782997.9 | 249.6 | 3.40 | 4.00 | 3.16 | NO | |
| L0000006 | 0 | 0.12048E-01 | 327682.9 | 3782989.9 | 249.9 | 3.40 | 4.00 | 3.16 | NO | |
| L0000007 | 0 | 0.12048E-01 | 327688.6 | 3782983.4 | 250.0 | 3.40 | 4.00 | 3.16 | NO | |
| L0000008 | 0 | 0.12048E-01 | 327694.2 | 3782977.0 | 250.2 | 3.40 | 4.00 | 3.16 | NO | |
| L0000009 | 0 | 0.12048E-01 | 327700.1 | 3782970.8 | 250.4 | 3.40 | 4.00 | | | |

```
3.16     NO
 L0000010         0   0.12048E-01  327707.2 3782965.8   250.8      3.40     4.00
3.16     NO
 L0000011         0   0.12048E-01  327714.6 3782963.1   251.2      3.40     4.00
3.16     NO
 L0000012         0   0.12048E-01  327722.8 3782965.6   251.0      3.40     4.00
3.16     NO
 L0000013         0   0.12048E-01  327731.0 3782968.1   250.6      3.40     4.00
3.16     NO
 L0000014         0   0.12048E-01  327739.3 3782970.6   250.3      3.40     4.00
3.16     NO
 L0000015         0   0.12048E-01  327747.5 3782973.1   250.2      3.40     4.00
3.16     NO
 L0000016         0   0.12048E-01  327754.5 3782977.1   249.8      3.40     4.00
3.16     NO
 L0000017         0   0.12048E-01  327758.4 3782984.7   249.0      3.40     4.00
3.16     NO
 L0000018         0   0.12048E-01  327762.4 3782992.3   248.1      3.40     4.00
3.16     NO
 L0000019         0   0.12048E-01  327766.4 3783000.0   247.0      3.40     4.00
3.16     NO
 L0000020         0   0.12048E-01  327770.3 3783007.6   246.3      3.40     4.00
3.16     NO
 L0000021         0   0.12048E-01  327774.3 3783015.2   245.7      3.40     4.00
3.16     NO
 L0000022         0   0.12048E-01  327775.3 3783023.8   245.3      3.40     4.00
3.16     NO
 L0000023         0   0.12048E-01  327776.3 3783032.3   244.9      3.40     4.00
3.16     NO
 L0000024         0   0.12048E-01  327777.3 3783040.8   244.2      3.40     4.00
3.16     NO
 L0000025         0   0.12048E-01  327778.4 3783049.4   243.5      3.40     4.00
3.16     NO
 L0000026         0   0.12048E-01  327779.4 3783057.9   242.8      3.40     4.00
3.16     NO
 L0000027         0   0.12048E-01  327774.8 3783059.6   243.2      3.40     4.00
3.16     NO
 L0000028         0   0.12048E-01  327766.6 3783056.9   244.4      3.40     4.00
3.16     NO
 L0000029         0   0.12048E-01  327758.4 3783054.2   244.9      3.40     4.00
3.16     NO
 L0000030         0   0.12048E-01  327750.3 3783051.5   245.4      3.40     4.00
3.16     NO
 L0000031         0   0.12048E-01  327742.1 3783048.8   245.9      3.40     4.00
3.16     NO
 L0000032         0   0.12048E-01  327733.9 3783046.1   246.3      3.40     4.00
3.16     NO
 L0000033         0   0.12048E-01  327725.7 3783043.4   246.7      3.40     4.00
3.16     NO
 L0000034         0   0.12048E-01  327717.6 3783040.7   247.1      3.40     4.00
```

3.16     NO
 L0000035         0   0.12048E-01  327709.3 3783038.4   247.4     3.40     4.00
3.16     NO
 L0000036         0   0.12048E-01  327700.8 3783037.3   247.6     3.40     4.00
3.16     NO
 L0000037         0   0.12048E-01  327692.3 3783036.3   247.8     3.40     4.00
3.16     NO
 L0000038         0   0.12048E-01  327686.7 3783032.9   248.0     3.40     4.00
3.16     NO
 L0000039         0   0.12048E-01  327687.7 3783024.4   248.4     3.40     4.00
3.16     NO
 L0000040         0   0.12048E-01  327688.7 3783015.8   248.7     3.40     4.00
3.16     NO


 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

*** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 L0000041         0   0.12048E-01  327689.7 3783007.3   249.1     3.40     4.00
3.16     NO
 L0000042         0   0.12048E-01  327692.9 3782999.7   249.4     3.40     4.00
3.16     NO
 L0000043         0   0.12048E-01  327698.5 3782993.1   249.6     3.40     4.00
3.16     NO
 L0000044         0   0.12048E-01  327704.0 3782986.5   249.8     3.40     4.00
3.16     NO
 L0000045         0   0.12048E-01  327709.5 3782980.0   249.9     3.40     4.00
3.16     NO
 L0000046         0   0.12048E-01  327717.0 3782979.4   249.9     3.40     4.00
3.16     NO
 L0000047         0   0.12048E-01  327725.3 3782981.6   249.8     3.40     4.00
3.16     NO
 L0000048         0   0.12048E-01  327733.7 3782983.7   249.7     3.40     4.00
3.16     NO
 L0000049         0   0.12048E-01  327741.8 3782986.1   249.5     3.40     4.00

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3.16      NO
 L0000050          0   0.12048E-01  327746.0 3782993.6   248.8      3.40      4.00
3.16      NO
 L0000051          0   0.12048E-01  327750.3 3783001.1   248.1      3.40      4.00
3.16      NO
 L0000052          0   0.12048E-01  327754.5 3783008.5   247.4      3.40      4.00
3.16      NO
 L0000053          0   0.12048E-01  327758.7 3783016.0   246.9      3.40      4.00
3.16      NO
 L0000054          0   0.12048E-01  327761.2 3783024.3   246.4      3.40      4.00
3.16      NO
 L0000055          0   0.12048E-01  327763.6 3783032.5   246.0      3.40      4.00
3.16      NO
 L0000056          0   0.12048E-01  327766.1 3783040.8   245.4      3.40      4.00
3.16      NO
 L0000057          0   0.12048E-01  327763.2 3783043.7   245.3      3.40      4.00
3.16      NO
 L0000058          0   0.12048E-01  327754.9 3783041.5   245.8      3.40      4.00
3.16      NO
 L0000059          0   0.12048E-01  327746.6 3783039.2   246.2      3.40      4.00
3.16      NO
 L0000060          0   0.12048E-01  327738.3 3783036.9   246.6      3.40      4.00
3.16      NO
 L0000061          0   0.12048E-01  327730.0 3783034.6   247.1      3.40      4.00
3.16      NO
 L0000062          0   0.12048E-01  327721.7 3783032.3   247.5      3.40      4.00
3.16      NO
 L0000063          0   0.12048E-01  327713.4 3783030.0   247.8      3.40      4.00
3.16      NO
 L0000064          0   0.12048E-01  327705.1 3783027.7   248.0      3.40      4.00
3.16      NO
 L0000065          0   0.12048E-01  327700.1 3783023.4   248.3      3.40      4.00
3.16      NO
 L0000066          0   0.12048E-01  327701.6 3783014.9   248.6      3.40      4.00
3.16      NO
 L0000067          0   0.12048E-01  327703.8 3783006.8   249.0      3.40      4.00
3.16      NO
 L0000068          0   0.12048E-01  327708.8 3782999.8   249.2      3.40      4.00
3.16      NO
 L0000069          0   0.12048E-01  327713.8 3782992.8   249.4      3.40      4.00
3.16      NO
 L0000070          0   0.12048E-01  327721.7 3782993.9   249.3      3.40      4.00
3.16      NO
 L0000071          0   0.12048E-01  327730.0 3782996.2   249.1      3.40      4.00
3.16      NO
 L0000072          0   0.12048E-01  327736.5 3783000.7   248.8      3.40      4.00
3.16      NO
 L0000073          0   0.12048E-01  327740.8 3783008.2   248.3      3.40      4.00
3.16      NO
 L0000074          0   0.12048E-01  327745.1 3783015.6   247.6      3.40      4.00
```

3.16 NO
L0000075 0 0.12048E-01 327749.4 3783023.1 247.0 3.40 4.00
3.16 NO
L0000076 0 0.12048E-01 327750.3 3783028.0 246.7 3.40 4.00
3.16 NO
L0000077 0 0.12048E-01 327742.0 3783025.8 247.1 3.40 4.00
3.16 NO
L0000078 0 0.12048E-01 327733.6 3783023.6 247.5 3.40 4.00
3.16 NO
L0000079 0 0.12048E-01 327725.3 3783021.5 247.9 3.40 4.00
3.16 NO
L0000080 0 0.12048E-01 327717.0 3783019.3 248.2 3.40 4.00
3.16 NO


*** MODELOPTs: RegDFAULT CONC ELEV RURAL SigA Data

*** VOLUME SOURCE DATA ***

| SOURCE ID | NUMBER PART. CATS. | EMISSION RATE (GRAMS/SEC) | X (METERS) | Y (METERS) | BASE ELEV. (METERS) | RELEASE HEIGHT (METERS) | INIT. SY (METERS) | INIT. SZ (METERS) | URBAN SOURCE | EMISSION RATE SCALAR VARY BY |
|---|---|---|---|---|---|---|---|---|---|---|
| L0000081 | 0 | 0.12048E-01 | 327714.9 | 3783013.5 | 248.6 | 3.40 | 4.00 | 3.16 | NO | |
| L0000082 | 0 | 0.12048E-01 | 327718.2 | 3783007.3 | 248.8 | 3.40 | 4.00 | 3.16 | NO | |
| L0000083 | 0 | 0.12048E-01 | 327726.2 | 3783010.5 | 248.5 | 3.40 | 4.00 | 3.16 | NO | |
| L0000084 | 0 | 0.18182E-01 | 326284.6 | 3786705.4 | 224.9 | 3.40 | 4.00 | 3.16 | NO | |
| L0000085 | 0 | 0.18182E-01 | 326281.5 | 3786697.4 | 225.1 | 3.40 | 4.00 | 3.16 | NO | |
| L0000086 | 0 | 0.18182E-01 | 326278.3 | 3786689.4 | 225.3 | 3.40 | 4.00 | 3.16 | NO | |
| L0000087 | 0 | 0.18182E-01 | 326275.2 | 3786681.4 | 225.5 | 3.40 | 4.00 | 3.16 | NO | |
| L0000088 | 0 | 0.18182E-01 | 326272.1 | 3786673.4 | 225.8 | 3.40 | 4.00 | 3.16 | NO | |
| L0000089 | 0 | 0.18182E-01 | 326269.0 | 3786665.4 | 226.1 | 3.40 | 4.00 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.16 | NO | | | | | | |
| L0000090 | 0 | 0.18182E-01 | 326265.8 | 3786657.4 | 226.1 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000091 | 0 | 0.18182E-01 | 326262.7 | 3786649.4 | 226.2 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000092 | 0 | 0.18182E-01 | 326259.6 | 3786641.4 | 226.2 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000093 | 0 | 0.18182E-01 | 326256.5 | 3786633.3 | 226.4 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000094 | 0 | 0.18182E-01 | 326262.7 | 3786629.7 | 226.9 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000095 | 0 | 0.18182E-01 | 326270.8 | 3786626.8 | 227.4 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000096 | 0 | 0.18182E-01 | 326279.0 | 3786624.0 | 227.6 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000097 | 0 | 0.18182E-01 | 326287.1 | 3786621.2 | 227.9 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000098 | 0 | 0.18182E-01 | 326295.2 | 3786618.4 | 228.2 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000099 | 0 | 0.18182E-01 | 326303.3 | 3786615.6 | 228.5 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000100 | 0 | 0.18182E-01 | 326307.6 | 3786621.3 | 228.6 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000101 | 0 | 0.18182E-01 | 326310.9 | 3786629.2 | 228.6 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000102 | 0 | 0.18182E-01 | 326314.1 | 3786637.2 | 228.5 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000103 | 0 | 0.18182E-01 | 326317.4 | 3786645.2 | 228.4 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000104 | 0 | 0.18182E-01 | 326320.7 | 3786653.1 | 228.3 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000105 | 0 | 0.18182E-01 | 326323.9 | 3786661.1 | 228.1 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000106 | 0 | 0.18182E-01 | 326327.2 | 3786669.0 | 228.0 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000107 | 0 | 0.18182E-01 | 326330.4 | 3786677.0 | 227.9 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000108 | 0 | 0.18182E-01 | 326333.7 | 3786684.9 | 227.7 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000109 | 0 | 0.18182E-01 | 326337.0 | 3786692.9 | 227.6 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000110 | 0 | 0.18182E-01 | 326329.5 | 3786695.9 | 227.4 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000111 | 0 | 0.18182E-01 | 326321.3 | 3786698.5 | 227.2 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000112 | 0 | 0.18182E-01 | 326313.1 | 3786701.2 | 226.9 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000113 | 0 | 0.18182E-01 | 326304.9 | 3786703.9 | 226.6 | 3.40 | 4.00 |
| 3.16 | NO | | | | | | |
| L0000114 | 0 | 0.18182E-01 | 326298.3 | 3786703.1 | 226.4 | 3.40 | 4.00 |

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3.16     NO
 L0000115         0   0.18182E-01  326295.0 3786695.2   226.6     3.40     4.00
3.16     NO
 L0000116         0   0.18182E-01  326291.7 3786687.3   226.6     3.40     4.00
3.16     NO
 L0000117         0   0.18182E-01  326288.4 3786679.3   226.6     3.40     4.00
3.16     NO
 L0000118         0   0.18182E-01  326285.1 3786671.4   226.7     3.40     4.00
3.16     NO
 L0000119         0   0.18182E-01  326281.7 3786663.5   226.9     3.40     4.00
3.16     NO
 L0000120         0   0.18182E-01  326278.4 3786655.5   227.1     3.40     4.00
3.16     NO
```


```
                                                     *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0000121         0   0.18182E-01  326275.1 3786647.6   227.2     3.40     4.00
3.16     NO
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3.16     NO
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3.16     NO
 L0000124         0   0.18182E-01  326291.8 3786635.3   228.0     3.40     4.00
3.16     NO
 L0000125         0   0.18182E-01  326297.5 3786638.0   228.1     3.40     4.00
3.16     NO
 L0000126         0   0.18182E-01  326301.0 3786645.9   228.0     3.40     4.00
3.16     NO
 L0000127         0   0.18182E-01  326304.5 3786653.7   227.9     3.40     4.00
3.16     NO
 L0000128         0   0.18182E-01  326308.0 3786661.6   227.8     3.40     4.00
3.16     NO
 L0000129         0   0.18182E-01  326311.5 3786669.4   227.7     3.40     4.00
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3.16     NO
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3.16     NO
 L0000131         0   0.18182E-01  326318.6 3786685.1   227.5     3.40     4.00
3.16     NO
 L0000132         0   0.18182E-01  326315.9 3786690.6   227.3     3.40     4.00
3.16     NO
 L0000133         0   0.18182E-01  326308.1 3786694.3   227.0     3.40     4.00
3.16     NO
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3.16     NO
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3.16     NO
 L0000136         0   0.18182E-01  326298.2 3786670.6   227.5     3.40     4.00
3.16     NO
 L0000137         0   0.18182E-01  326295.0 3786662.7   227.5     3.40     4.00
3.16     NO
 L0000138         0   0.18182E-01  326291.7 3786654.7   227.6     3.40     4.00
3.16     NO
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                                                    *** SOURCE IDs DEFINING SOURCE GROUPS ***

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


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L0000006    , L0000007    , L0000008    ,

             L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
L0000014    , L0000015    , L0000016    ,

             L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
L0000022    , L0000023    , L0000024    ,

             L0000025    , L0000026    , L0000027    , L0000028    , L0000029    ,
L0000030    , L0000031    , L0000032    ,

             L0000033    , L0000034    , L0000035    , L0000036    , L0000037    ,
L0000038    , L0000039    , L0000040    ,

             L0000041    , L0000042    , L0000043    , L0000044    , L0000045    ,
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             L0000073    , L0000074    , L0000075    , L0000076    , L0000077    ,
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  SLINE2     L0000084    , L0000085    , L0000086    , L0000087    , L0000088    ,
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L0000137    , L0000138    ,

  ALL        L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
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L0000014    , L0000015    , L0000016    ,
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                                             *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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L0000118    , L0000119    , L0000120    ,

            L0000121    , L0000122    , L0000123    , L0000124    , L0000125    ,
L0000126    , L0000127    , L0000128    ,

            L0000129    , L0000130    , L0000131    , L0000132    , L0000133    ,
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L0000134    , L0000135    , L0000136    ,

             L0000137    , L0000138    ,
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HRAs\LRCCC and
Janss\LRCCC and Janss.isc      ***        07/19/23
 *** AERMET - VERSION  21112 ***   ***
                      ***        09:21:45

                                  PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

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

     ( 327629.5, 3783002.8,     251.0,     450.7,       0.0);         ( 327629.5,
3783037.9,     249.2,     450.7,       0.0);
     ( 327602.3, 3783041.0,     249.9,     450.7,       0.0);         ( 327580.5,
3783039.4,     250.3,     450.7,       0.0);
     ( 327571.9, 3783008.3,     252.2,     450.7,       0.0);         ( 327552.5,
3782961.6,     256.3,     450.7,       0.0);
     ( 327564.9, 3782948.4,     256.9,     450.7,       0.0);         ( 327585.2,
3782925.0,     257.7,     450.7,       0.0);
     ( 327600.7, 3782900.1,     258.5,     450.7,       0.0);         ( 327614.8,
3782914.9,     257.8,     450.7,       0.0);
     ( 327638.1, 3782948.4,     255.0,     450.7,       0.0);         ( 327637.3,
3782981.0,     252.5,     450.7,       0.0);
     ( 327596.8, 3782991.9,     252.5,     450.7,       0.0);         ( 327600.0,
3782965.5,     254.2,     450.7,       0.0);
     ( 327518.2, 3782951.5,     255.7,     450.7,       0.0);         ( 327529.1,
3782931.2,     257.2,     450.7,       0.0);
     ( 327541.6, 3782910.2,     258.2,     450.7,       0.0);         ( 327557.9,
3782894.6,     258.9,     450.7,       0.0);
     ( 327568.0, 3782879.1,     259.5,     450.7,       0.0);         ( 327536.1,
3783029.3,     251.3,     450.7,       0.0);
     ( 327513.5, 3783047.2,     250.6,     450.7,       0.0);         ( 327535.3,
3783052.7,     250.2,     450.7,       0.0);
     ( 327484.0, 3783053.4,     250.5,     450.7,       0.0);         ( 327459.1,
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     ( 327456.7, 3783032.4,     249.2,     450.7,       0.0);         ( 327946.3,
3783145.3,     233.7,     450.7,       0.0);
     ( 327945.6, 3783028.5,     241.6,     450.7,       0.0);         ( 327942.5,
3782956.9,     251.2,     450.7,       0.0);
     ( 327874.0, 3782935.9,     243.8,     450.7,       0.0);         ( 327965.8,
3782871.3,     256.0,     450.7,       0.0);
     ( 328050.6, 3782898.5,     253.2,     450.7,       0.0);         ( 328061.5,
3782943.7,     248.4,     450.7,       0.0);
     ( 328030.4, 3783127.4,     250.5,     450.7,       0.0);         ( 327980.6,
3782831.6,     258.3,     450.7,       0.0);
     ( 327955.7, 3782771.7,     261.6,     450.7,       0.0);         ( 328042.9,
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3782835.5,     256.9,     450.7,       0.0);
     ( 328186.9, 3783045.7,     261.3,     450.7,       0.0);          ( 328157.3,
3783081.5,     259.4,     450.7,       0.0);
     ( 326354.2, 3786555.5,     234.0,     280.8,       0.0);          ( 326327.7,
3786552.7,     232.9,     280.8,       0.0);
     ( 326276.7, 3786559.3,     230.9,     280.8,       0.0);          ( 326240.8,
3786563.0,     230.2,     280.8,       0.0);
     ( 326216.3, 3786552.7,     230.5,     280.8,       0.0);          ( 326187.9,
3786531.9,     230.6,     280.8,       0.0);
     ( 326162.4, 3786514.9,     230.7,     280.8,       0.0);          ( 326136.9,
3786492.2,     231.3,     280.8,       0.0);
     ( 326105.8, 3786482.8,     231.4,     280.8,       0.0);          ( 326085.9,
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     ( 326066.1, 3786461.0,     231.6,     280.8,       0.0);          ( 326047.2,
3786449.7,     231.9,     280.8,       0.0);
     ( 326122.8, 3786597.0,     227.6,     280.8,       0.0);          ( 326096.3,
3786588.5,     227.7,     280.8,       0.0);
     ( 326063.3, 3786579.1,     228.3,     280.8,       0.0);          ( 326054.8,
3786535.7,     229.1,     280.8,       0.0);
     ( 326035.9, 3786530.9,     229.3,     280.8,       0.0);          ( 326010.4,
3786516.8,     229.6,     280.8,       0.0);
     ( 326013.2, 3786566.8,     228.8,     280.8,       0.0);          ( 325987.7,
3786559.3,     229.3,     280.8,       0.0);
     ( 325975.4, 3786545.1,     229.8,     280.8,       0.0);          ( 325923.5,
3786565.9,     230.8,     280.8,       0.0);
     ( 326450.5, 3786545.1,     251.9,     267.7,       0.0);          ( 326447.7,
3786511.1,     253.0,     267.1,       0.0);
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                            *** 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
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1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 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,

↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HRAs\LRCCC and Janss\LRCCC and Janss.isc      ***        07/19/23
*** AERMET - VERSION  21112 ***   ***
***        09:21:45

PAGE  10
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

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

Surface file:   ..\Los Robles Medical Center\Thousand-Oaks-2015-2019\2015-2019 Thousand Oaks.SFC   Met Version:  21112
Profile file:   ..\Los Robles Medical Center\Thousand-Oaks-2015-2019\2015-2019 Thousand Oaks.PFL
Surface format: FREE

Profile format: FREE

Surface station no.:    23130                  Upper air station no.:    93214
Name: UNKNOWN                                  Name: UNKNOWN

Year:   2015                                   Year:   2015

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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -
 15 01 01   1 01   -2.1  0.047 -9.000 -9.000 -999.   24.      4.3  0.09   1.07
1.00    1.10  112.   10.0  275.4   10.0
 15 01 01   1 02   -3.5  0.060 -9.000 -9.000 -999.   36.      5.5  0.10   1.07
1.00    1.40  129.   10.0  274.6   10.0
 15 01 01   1 03   -2.6  0.052 -9.000 -9.000 -999.   28.      4.7  0.10   1.07
```

```
1.00    1.20  126.   10.0  274.2   10.0
 15 01 01   1 04   -4.0  0.065 -9.000 -9.000 -999.   39.      5.9  0.10   1.07
1.00    1.50  126.   10.0  273.6   10.0
 15 01 01   1 05   -4.0  0.065 -9.000 -9.000 -999.   39.      5.9  0.10   1.07
1.00    1.50  127.   10.0  273.8   10.0
 15 01 01   1 06   -5.8  0.077 -9.000 -9.000 -999.   52.      7.1  0.10   1.07
1.00    1.80  127.   10.0  274.0   10.0
 15 01 01   1 07   -9.5  0.099 -9.000 -9.000 -999.   75.      9.0  0.10   1.07
1.00    2.30  146.   10.0  273.5   10.0
 15 01 01   1 08   -6.6  0.086 -9.000 -9.000 -999.   61.      8.6  0.10   1.07
0.56    2.00  127.   10.0  275.0   10.0
 15 01 01   1 09   21.1  0.166  0.311  0.005   50.  163.    -19.2  0.10   1.07
0.31    1.60  141.   10.0  278.9   10.0
 15 01 01   1 10   72.6  0.189  0.557  0.005   84.  197.     -8.2  0.08   1.07
0.23    1.70  163.   10.0  281.6   10.0
 15 01 01   1 11  109.4  0.153  1.392  0.010  873.  143.     -2.9  0.08   1.07
0.20    1.20   66.   10.0  284.5   10.0
 15 01 01   1 12  128.1  0.158  1.484  0.009  902.  150.     -2.7  0.06   1.07
0.19    1.30  273.   10.0  286.2   10.0
 15 01 01   1 13  127.8  0.212  1.499  0.008  931.  234.     -6.6  0.06   1.07
0.19    2.00  297.   10.0  286.2   10.0
 15 01 01   1 14  109.1  0.201  1.434  0.007  955.  217.     -6.6  0.06   1.07
0.20    1.90  281.   10.0  286.9   10.0
 15 01 01   1 15   72.3  0.273  1.257  0.006  970.  343.    -24.9  0.06   1.07
0.23    3.00  281.   10.0  286.5   10.0
 15 01 01   1 16   20.8  0.284  0.832  0.006  977.  363.    -96.8  0.06   1.07
0.32    3.40  280.   10.0  285.8   10.0
 15 01 01   1 17  -16.7  0.176 -9.000 -9.000 -999.  183.     28.7  0.06   1.07
0.57    3.00  282.   10.0  284.4   10.0
 15 01 01   1 18   -2.0  0.045 -9.000 -9.000 -999.   50.      3.8  0.05   1.07
1.00    1.20  309.   10.0  282.5   10.0
 15 01 01   1 19   -2.1  0.047 -9.000 -9.000 -999.   25.      4.3  0.09   1.07
1.00    1.10  100.   10.0  280.9   10.0
 15 01 01   1 20   -2.1  0.047 -9.000 -9.000 -999.   25.      4.4  0.10   1.07
1.00    1.10  123.   10.0  279.2   10.0
 15 01 01   1 21   -4.0  0.065 -9.000 -9.000 -999.   39.      5.9  0.10   1.07
1.00    1.50  134.   10.0  278.4   10.0
 15 01 01   1 22   -1.8  0.043 -9.000 -9.000 -999.   21.      4.0  0.10   1.07
1.00    1.00  127.   10.0  277.6   10.0
 15 01 01   1 23   -2.6  0.052 -9.000 -9.000 -999.   28.      4.7  0.10   1.07
1.00    1.20  128.   10.0  276.5   10.0
 15 01 01   1 24   -2.6  0.052 -9.000 -9.000 -999.   28.      4.7  0.10   1.07
1.00    1.20  127.   10.0  275.8   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 15 01 01 01   10.0 1  112.    1.10   275.5   19.8  -99.00    0.36

 F indicates top of profile (=1) or below (=0)
```

↑ *** AERMOD - VERSION 21112 *** *** C:\Users\apoll\Desktop\HRAs\LRCCC and Janss\LRCCC and Janss.isc *** 07/19/23
*** AERMET - VERSION 21112 *** ***
*** 09:21:45

PAGE 11
*** MODELOPTs: RegDFAULT CONC ELEV RURAL SigA Data

*** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SLINE1 ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|---|---|---|---|---|---|
| 327629.54 | 3783002.85 | 219.59492 | 327629.54 | 3783037.88 | 272.36121 |
| 327602.29 | 3783040.99 | 197.10524 | 327580.50 | 3783039.43 | 153.61897 |
| 327571.93 | 3783008.30 | 108.88677 | 327552.47 | 3782961.59 | 38.23456 |
| 327564.93 | 3782948.36 | 34.96399 | 327585.17 | 3782925.01 | 30.44912 |
| 327600.73 | 3782900.10 | 24.85366 | 327614.75 | 3782914.89 | 33.12149 |
| 327638.10 | 3782948.36 | 89.48485 | 327637.32 | 3782981.05 | 185.91242 |
| 327596.84 | 3782991.95 | 124.44988 | 327599.96 | 3782965.49 | 86.40144 |
| 327518.22 | 3782951.47 | 35.18550 | 327529.12 | 3782931.24 | 25.73004 |
| 327541.58 | 3782910.22 | 20.76393 | 327557.92 | 3782894.65 | 18.24868 |
| 327568.04 | 3782879.08 | 15.98493 | 327536.13 | 3783029.31 | 94.72846 |
| 327513.55 | 3783047.22 | 89.17991 | 327535.35 | | |

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3783052.67      108.82199
         327483.98    3783053.44       75.09439                      327459.07
3783067.46       68.40387
         327456.73    3783032.43       61.51513                      327946.34
3783145.30       44.07625
         327945.56    3783028.54       64.71773                      327942.45
3782956.92       82.47071
         327873.95    3782935.91      116.10520                      327965.80
3782871.30       36.94600
         328050.65    3782898.54       41.50759                      328061.54
3782943.69       49.53336
         328030.41    3783127.39       38.31918                      327980.59
3782831.60       22.12249
         327955.68    3782771.67       11.90762                      328042.86
3782835.49       24.00660
         328186.87    3783045.66        5.34656                      328157.29
3783081.47        7.07240
         326354.16    3786555.50        0.96670                      326327.72
3786552.66        0.95750
         326276.71    3786559.27        0.93714                      326240.82
3786563.05        0.93006
         326216.27    3786552.66        0.93589                      326187.93
3786531.88        0.94474
         326162.43    3786514.88        0.95147                      326136.93
3786492.21        0.96443
         326105.76    3786482.77        0.96702                      326085.92
3786471.44        0.97101
         326066.09    3786461.05        0.97497                      326047.20
3786449.71        0.98065
         326122.76    3786597.05        0.89646                      326096.31
3786588.55        0.89970
         326063.26    3786579.11        0.90528                      326054.76
3786535.66        0.92635
         326035.87    3786530.94        0.92796                      326010.36
3786516.77        0.93342
         326013.20    3786566.83        0.91032                      325987.70
3786559.27        0.91457
         325975.42    3786545.11        0.92216                      325923.47
3786565.89        0.91853
         326450.50    3786545.11        1.05711                      326447.67
3786511.10        1.02215
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                                       *** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION
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VALUES FOR SOURCE GROUP: SLINE2 ***
INCLUDING SOURCE(S): L0000084 , L0000085 , L0000086 , L0000087 , L0000088 , L0000089 , L0000090 , L0000091 , L0000092 , L0000093 , L0000094 , L0000095 , L0000096 , L0000097 , L0000098 , L0000099 , L0000100 , L0000101 , L0000102 , L0000103 , L0000104 , L0000105 , L0000106 , L0000107 , L0000108 , L0000109 , L0000110 , L0000111 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|---|---|---|---|---|---|
| 327629.54 | 3783002.85 | 0.47235 | 327629.54 | 3783037.88 | 0.57533 |
| 327602.29 | 3783040.99 | 0.52971 | 327580.50 | 3783039.43 | 0.50344 |
| 327571.93 | 3783008.30 | 0.40364 | 327552.47 | 3782961.59 | 0.25219 |
| 327564.93 | 3782948.36 | 0.23900 | 327585.17 | 3782925.01 | 0.22209 |
| 327600.73 | 3782900.10 | 0.20492 | 327614.75 | 3782914.89 | 0.22259 |
| 327638.10 | 3782948.36 | 0.30514 | 327637.32 | 3782981.05 | 0.40139 |
| 327596.84 | 3782991.95 | 0.39544 | 327599.96 | 3782965.49 | 0.32781 |
| 327518.22 | 3782951.47 | 0.26286 | 327529.12 | 3782931.24 | 0.22373 |
| 327541.58 | 3782910.22 | 0.20202 | 327557.92 | 3782894.65 | 0.18880 |
| 327568.04 | 3782879.08 | 0.17824 | 327536.13 | 3783029.31 | 0.43657 |
| 327513.55 | 3783047.22 | 0.46897 | 327535.35 | 3783052.67 | 0.49483 |
| 327483.98 | 3783053.44 | 0.46578 | 327459.07 | 3783067.46 | 0.56137 |
| 327456.73 | 3783032.43 | 0.52056 | 327946.34 | 3783145.30 | 1.58564 |
| 327945.56 | 3783028.54 | 1.12871 | 327942.45 | 3782956.92 | 0.49963 |
| 327873.95 | 3782935.91 | 0.94495 | 327965.80 | 3782871.30 | 0.30726 |

328050.65    3782898.54        0.41762                          328061.54
3782943.69        0.66711
328030.41    3783127.39        0.56923                          327980.59
3782831.60        0.24514
327955.68    3782771.67        0.17604                          328042.86
3782835.49        0.28863
328186.87    3783045.66        0.21114                          328157.29
3783081.47        0.24978
326354.16    3786555.50      121.76967                          326327.72
3786552.66      145.73870
326276.71    3786559.27      170.71735                          326240.82
3786563.05      155.04634
326216.27    3786552.66      122.31530                          326187.93
3786531.88       91.49334
326162.43    3786514.88       74.39521                          326136.93
3786492.21       57.49632
326105.76    3786482.77       49.11079                          326085.92
3786471.44       43.81512
326066.09    3786461.05       38.80043                          326047.20
3786449.71       34.27947
326122.76    3786597.05       89.89678                          326096.31
3786588.55       75.60012
326063.26    3786579.11       62.57554                          326054.76
3786535.66       53.52813
326035.87    3786530.94       48.90586                          326010.36
3786516.77       42.78073
326013.20    3786566.83       48.69005                          325987.70
3786559.27       43.11243
325975.42    3786545.11       39.78148                          325923.47
3786565.89       32.84457
326450.50    3786545.11        9.89231                          326447.67
3786511.10        7.25236


*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

*** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL      ***
INCLUDING SOURCE(S):     L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
L0000022    , L0000023    , L0000024    , L0000025    , L0000026    , L0000027    , L0000028    ,  . . .      ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|---|---|---|---|---|---|
| 327629.54 | 3783002.85 | 220.06727 | 327629.54 | 3783037.88 | 272.93654 |
| 327602.29 | 3783040.99 | 197.63495 | 327580.50 | 3783039.43 | 154.12241 |
| 327571.93 | 3783008.30 | 109.29041 | 327552.47 | 3782961.59 | 38.48675 |
| 327564.93 | 3782948.36 | 35.20299 | 327585.17 | 3782925.01 | 30.67121 |
| 327600.73 | 3782900.10 | 25.05859 | 327614.75 | 3782914.89 | 33.34408 |
| 327638.10 | 3782948.36 | 89.78999 | 327637.32 | 3782981.05 | 186.31381 |
| 327596.84 | 3782991.95 | 124.84532 | 327599.96 | 3782965.49 | 86.72925 |
| 327518.22 | 3782951.47 | 35.44836 | 327529.12 | 3782931.24 | 25.95376 |
| 327541.58 | 3782910.22 | 20.96594 | 327557.92 | 3782894.65 | 18.43748 |
| 327568.04 | 3782879.08 | 16.16317 | 327536.13 | 3783029.31 | 95.16503 |
| 327513.55 | 3783047.22 | 89.64888 | 327535.35 | 3783052.67 | 109.31682 |
| 327483.98 | 3783053.44 | 75.56017 | 327459.07 | 3783067.46 | 68.96525 |
| 327456.73 | 3783032.43 | 62.03570 | 327946.34 | 3783145.30 | 45.66189 |
| 327945.56 | 3783028.54 | 65.84644 | 327942.45 | 3782956.92 | 82.97033 |
| 327873.95 | 3782935.91 | 117.05015 | 327965.80 | 3782871.30 | 37.25326 |
| 328050.65 | 3782898.54 | 41.92521 | 328061.54 | 3782943.69 | 50.20047 |
| 328030.41 | 3783127.39 | 38.88841 | 327980.59 | 3782831.60 | 22.36764 |
| 327955.68 | 3782771.67 | 12.08366 | 328042.86 | 3782835.49 | 24.29523 |
| 328186.87 | 3783045.66 | 5.55770 | 328157.29 | 3783081.47 | 7.32219 |
| 326354.16 | 3786555.50 | 122.73636 | 326327.72 | | |

3786552.66      146.69620
         326276.71    3786559.27      171.65448                          326240.82
3786563.05      155.97640
         326216.27    3786552.66      123.25119                          326187.93
3786531.88       92.43808
         326162.43    3786514.88       75.34668                          326136.93
3786492.21       58.46075
         326105.76    3786482.77       50.07782                          326085.92
3786471.44       44.78613
         326066.09    3786461.05       39.77541                          326047.20
3786449.71       35.26012
         326122.76    3786597.05       90.79324                          326096.31
3786588.55       76.49982
         326063.26    3786579.11       63.48082                          326054.76
3786535.66       54.45448
         326035.87    3786530.94       49.83383                          326010.36
3786516.77       43.71416
         326013.20    3786566.83       49.60038                          325987.70
3786559.27       44.02700
         325975.42    3786545.11       40.70364                          325923.47
3786565.89       33.76310
         326450.50    3786545.11       10.94943                          326447.67
3786511.10        8.27450


*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

*** THE   1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: SLINE1   ***
INCLUDING SOURCE(S):     L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
L0000006    , L0000007    , L0000008    , L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
L0000014    , L0000015    , L0000016    , L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
L0000022    , L0000023    , L0000024    , L0000025    , L0000026    , L0000027    , L0000028    ,  . . .      ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2      IN MICROGRAMS/M**3 **

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

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

| | | | | | |
|---|---|---|---|---|---|
| 327629.54 | 3783002.85 | 2414.34226 | 327629.54 | 3783037.88 | 2411.73198 |
| 327602.29 | 3783040.99 | 2228.91494 | 327580.50 | 3783039.43 | 2126.24673 |
| 327571.93 | 3783008.30 | 1964.58686 | 327552.47 | 3782961.59 | 1137.54597 |
| 327564.93 | 3782948.36 | 1008.72365 | 327585.17 | 3782925.01 | 843.29153 |
| 327600.73 | 3782900.10 | 728.93915 | 327614.75 | 3782914.89 | 845.16769 |
| 327638.10 | 3782948.36 | 1554.35606 | 327637.32 | 3782981.05 | 2166.09223 |
| 327596.84 | 3782991.95 | 2050.44998 | 327599.96 | 3782965.49 | 1692.36229 |
| 327518.22 | 3782951.47 | 1240.11347 | 327529.12 | 3782931.24 | 903.73402 |
| 327541.58 | 3782910.22 | 697.99653 | 327557.92 | 3782894.65 | 617.21507 |
| 327568.04 | 3782879.08 | 543.59644 | 327536.13 | 3783029.31 | 1972.33200 |
| 327513.55 | 3783047.22 | 1836.13670 | 327535.35 | 3783052.67 | 1859.41715 |
| 327483.98 | 3783053.44 | 1729.56621 | 327459.07 | 3783067.46 | 1557.12335 |
| 327456.73 | 3783032.43 | 1828.71065 | 327946.34 | 3783145.30 | 829.09321 |
| 327945.56 | 3783028.54 | 1393.88551 | 327942.45 | 3782956.92 | 1822.02886 |
| 327873.95 | 3782935.91 | 1581.02600 | 327965.80 | 3782871.30 | 1108.75617 |
| 328050.65 | 3782898.54 | 1348.18004 | 328061.54 | 3782943.69 | 1646.42202 |
| 328030.41 | 3783127.39 | 824.99833 | 327980.59 | 3782831.60 | 677.26395 |
| 327955.68 | 3782771.67 | 372.07527 | 328042.86 | 3782835.49 | 883.62817 |
| 328186.87 | 3783045.66 | 297.26035 | 328157.29 | 3783081.47 | 431.58431 |
| 326354.16 | 3786555.50 | 82.32340 | 326327.72 | 3786552.66 | 87.29639 |
| 326276.71 | 3786559.27 | 95.77994 | 326240.82 | 3786563.05 | 101.58696 |
| 326216.27 | 3786552.66 | 105.39929 | 326187.93 | 3786531.88 | 107.98597 |
| 326162.43 | 3786514.88 | 107.65272 | 326136.93 | 3786492.21 | 104.88402 |
| 326105.76 | 3786482.77 | 99.00406 | 326085.92 | 3786471.44 | 93.75752 |

326066.09    3786461.05       87.73862                             326047.20
3786449.71       81.27022
326122.76    3786597.05      103.76019                             326096.31
3786588.55      101.08046
326063.26    3786579.11       95.46273                             326054.76
3786535.66       90.93588
326035.87    3786530.94       85.89231                             326010.36
3786516.77       77.60497
326013.20    3786566.83       83.23373                             325987.70
3786559.27       75.70329
325975.42    3786545.11       71.14778                             325923.47
3786565.89       61.06674
326450.50    3786545.11       95.91669                             326447.67
3786511.10      107.03294


*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

*** THE   1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: SLINE2   ***
INCLUDING SOURCE(S):     L0000084    , L0000085    , L0000086    , L0000087    , L0000088    ,
L0000089    , L0000090    , L0000091    , L0000092    , L0000093    , L0000094    , L0000095    , L0000096    ,
L0000097    , L0000098    , L0000099    , L0000100    , L0000101    , L0000102    , L0000103    , L0000104    ,
L0000105    , L0000106    , L0000107    , L0000108    , L0000109    , L0000110    , L0000111    ,  . . .      ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2      IN MICROGRAMS/M**3 **

X-COORD (M)   Y-COORD (M)        CONC                            X-COORD (M)
Y-COORD (M)        CONC
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
327629.54    3783002.85       54.45766                             327629.54
3783037.88       64.39868
327602.29    3783040.99       60.71451                             327580.50
3783039.43       59.33538
327571.93    3783008.30       51.26171                             327552.47
3782961.59       40.58574
327564.93    3782948.36       39.37952                             327585.17

3782925.01 37.53984
327600.73 3782900.10 35.27089 327614.75
3782914.89 36.20835
327638.10 3782948.36 40.92059 327637.32
3782981.05 48.94823
327596.84 3782991.95 49.43852 327599.96
3782965.49 44.39379
327518.22 3782951.47 40.59113 327529.12
3782931.24 38.11836
327541.58 3782910.22 36.39548 327557.92
3782894.65 35.04708
327568.04 3782879.08 33.52292 327536.13
3783029.31 55.16448
327513.55 3783047.22 57.59362 327535.35
3783052.67 60.53015
327483.98 3783053.44 57.12731 327459.07
3783067.46 69.99116
327456.73 3783032.43 65.06055 327946.34
3783145.30 211.49326
327945.56 3783028.54 111.28688 327942.45
3782956.92 54.39165
327873.95 3782935.91 95.86213 327965.80
3782871.30 36.97952
328050.65 3782898.54 47.39801 328061.54
3782943.69 68.73917
328030.41 3783127.39 58.72337 327980.59
3782831.60 30.61333
327955.68 3782771.67 23.57382 328042.86
3782835.49 33.21011
328186.87 3783045.66 26.64191 328157.29
3783081.47 30.18960
326354.16 3786555.50 1682.88415 326327.72
3786552.66 2192.18969
326276.71 3786559.27 2598.06159 326240.82
3786563.05 2489.99856
326216.27 3786552.66 2400.67594 326187.93
3786531.88 2096.23606
326162.43 3786514.88 1829.03878 326136.93
3786492.21 1621.82848
326105.76 3786482.77 1564.16887 326085.92
3786471.44 1453.41028
326066.09 3786461.05 1388.46772 326047.20
3786449.71 1320.25242
326122.76 3786597.05 1922.61942 326096.31
3786588.55 1817.62473
326063.26 3786579.11 1737.19935 326054.76
3786535.66 1607.12045
326035.87 3786530.94 1559.29095 326010.36
3786516.77 1464.35679
326013.20 3786566.83 1603.98963 325987.70

```
3786559.27     1518.46116
         325975.42    3786545.11     1392.63943                      325923.47
3786565.89     1327.64257
         326450.50    3786545.11      255.51707                      326447.67
3786511.10      259.60314
```


```
    *** THE   1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION    VALUES AVERAGED
OVER   5 YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
, L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
, L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
, L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
, L0000027    , L0000028    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF SO2      IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         327629.54    3783002.85     2414.45903                      327629.54
3783037.88     2411.89686
         327602.29    3783040.99     2229.06154                      327580.50
3783039.43     2126.38733
         327571.93    3783008.30     1964.67303                      327552.47
3782961.59     1137.61329
         327564.93    3782948.36     1008.77055                      327585.17
3782925.01      843.36695
         327600.73    3782900.10      729.03487                      327614.75
3782914.89      845.27061
         327638.10    3782948.36     1554.53495                      327637.32
3782981.05     2166.19097
         327596.84    3782991.95     2050.53461                      327599.96
3782965.49     1692.41330
         327518.22    3782951.47     1240.14417                      327529.12
3782931.24      903.77349
```

327541.58    3782910.22      698.05588                              327557.92
3782894.65      617.28111
327568.04    3782879.08      543.66555                              327536.13
3783029.31     1972.42446
327513.55    3783047.22     1836.27406                              327535.35
3783052.67     1859.55529
327483.98    3783053.44     1729.70286                              327459.07
3783067.46     1557.28742
327456.73    3783032.43     1828.88207                              327946.34
3783145.30      831.01992
327945.56    3783028.54     1394.83747                              327942.45
3782956.92     1822.17378
327873.95    3782935.91     1581.52995                              327965.80
3782871.30     1108.79739
328050.65    3782898.54     1348.23790                              328061.54
3782943.69     1646.69098
328030.41    3783127.39      825.10421                              327980.59
3782831.60      677.30420
327955.68    3782771.67      372.10953                              328042.86
3782835.49      883.68507
328186.87    3783045.66      297.27504                              328157.29
3783081.47      431.62927
326354.16    3786555.50     1686.99748                              326327.72
3786552.66     2195.74316
326276.71    3786559.27     2600.53555                              326240.82
3786563.05     2492.10017
326216.27    3786552.66     2403.08872                              326187.93
3786531.88     2098.30899
326162.43    3786514.88     1831.17102                              326136.93
3786492.21     1623.93931
326105.76    3786482.77     1567.10077                              326085.92
3786471.44     1456.72010
326066.09    3786461.05     1392.07475                              326047.20
3786449.71     1324.21872
326122.76    3786597.05     1926.46254                              326096.31
3786588.55     1821.21213
326063.26    3786579.11     1740.78021                              326054.76
3786535.66     1611.46321
326035.87    3786530.94     1563.70187                              326010.36
3786516.77     1468.77033
326013.20    3786566.83     1607.55763                              325987.70
3786559.27     1522.02393
325975.42    3786545.11     1396.13384                              325923.47
3786565.89     1330.87135
326450.50    3786545.11      257.65986                              326447.67
3786511.10      261.66909

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                        *** THE SUMMARY OF MAXIMUM PERIOD ( 43824
HRS) RESULTS ***


                                    ** CONC OF SO2      IN MICROGRAMS/M**3
               **


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

SLINE1    1ST HIGHEST VALUE IS     272.36121 AT (  327629.54,  3783037.88,   249.19,
  450.72,    0.00)  DC
          2ND HIGHEST VALUE IS     219.59492 AT (  327629.54,  3783002.85,   251.00,
  450.72,    0.00)  DC
          3RD HIGHEST VALUE IS     197.10524 AT (  327602.29,  3783040.99,   249.89,
  450.72,    0.00)  DC
          4TH HIGHEST VALUE IS     185.91242 AT (  327637.32,  3782981.05,   252.52,
  450.72,    0.00)  DC
          5TH HIGHEST VALUE IS     153.61897 AT (  327580.50,  3783039.43,   250.26,
  450.72,    0.00)  DC
          6TH HIGHEST VALUE IS     124.44988 AT (  327596.84,  3782991.95,   252.47,
  450.72,    0.00)  DC
          7TH HIGHEST VALUE IS     116.10520 AT (  327873.95,  3782935.91,   243.76,
  450.72,    0.00)  DC
          8TH HIGHEST VALUE IS     108.88677 AT (  327571.93,  3783008.30,   252.18,
  450.72,    0.00)  DC
          9TH HIGHEST VALUE IS     108.82199 AT (  327535.35,  3783052.67,   250.21,
  450.72,    0.00)  DC
         10TH HIGHEST VALUE IS      94.72846 AT (  327536.13,  3783029.31,   251.30,
  450.72,    0.00)  DC

SLINE2    1ST HIGHEST VALUE IS     170.71735 AT (  326276.71,  3786559.27,   230.89,
  280.81,    0.00)  DC
          2ND HIGHEST VALUE IS     155.04634 AT (  326240.82,  3786563.05,   230.22,
  280.81,    0.00)  DC
          3RD HIGHEST VALUE IS     145.73870 AT (  326327.72,  3786552.66,   232.90,
  280.81,    0.00)  DC
          4TH HIGHEST VALUE IS     122.31530 AT (  326216.27,  3786552.66,   230.48,
  280.81,    0.00)  DC
          5TH HIGHEST VALUE IS     121.76967 AT (  326354.16,  3786555.50,   233.97,
  280.81,    0.00)  DC
          6TH HIGHEST VALUE IS      91.49334 AT (  326187.93,  3786531.88,   230.63,
```

```
  280.81,    0.00)  DC
          7TH HIGHEST VALUE IS      89.89678 AT (  326122.76,  3786597.05,   227.58,
  280.81,    0.00)  DC
          8TH HIGHEST VALUE IS      75.60012 AT (  326096.31,  3786588.55,   227.74,
  280.81,    0.00)  DC
          9TH HIGHEST VALUE IS      74.39521 AT (  326162.43,  3786514.88,   230.72,
  280.81,    0.00)  DC
         10TH HIGHEST VALUE IS      62.57554 AT (  326063.26,  3786579.11,   228.28,
  280.81,    0.00)  DC

ALL       1ST HIGHEST VALUE IS     272.93654 AT (  327629.54,  3783037.88,   249.19,
  450.72,    0.00)  DC
          2ND HIGHEST VALUE IS     220.06727 AT (  327629.54,  3783002.85,   251.00,
  450.72,    0.00)  DC
          3RD HIGHEST VALUE IS     197.63495 AT (  327602.29,  3783040.99,   249.89,
  450.72,    0.00)  DC
          4TH HIGHEST VALUE IS     186.31381 AT (  327637.32,  3782981.05,   252.52,
  450.72,    0.00)  DC
          5TH HIGHEST VALUE IS     171.65448 AT (  326276.71,  3786559.27,   230.89,
  280.81,    0.00)  DC
          6TH HIGHEST VALUE IS     155.97640 AT (  326240.82,  3786563.05,   230.22,
  280.81,    0.00)  DC
          7TH HIGHEST VALUE IS     154.12241 AT (  327580.50,  3783039.43,   250.26,
  450.72,    0.00)  DC
          8TH HIGHEST VALUE IS     146.69620 AT (  326327.72,  3786552.66,   232.90,
  280.81,    0.00)  DC
          9TH HIGHEST VALUE IS     124.84532 AT (  327596.84,  3782991.95,   252.47,
  450.72,    0.00)  DC
         10TH HIGHEST VALUE IS     123.25119 AT (  326216.27,  3786552.66,   230.48,
  280.81,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HRAs\LRCCC and
Janss\LRCCC and Janss.isc      ***        07/19/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        09:21:45

                                  PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                      *** THE SUMMARY OF MAXIMUM   1ST-HIGHEST MAX DAILY  1-HR
RESULTS AVERAGED OVER   5 YEARS ***


                                        ** CONC OF SO2      IN MICROGRAMS/M**3
               **
```

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

SLINE1    1ST HIGHEST VALUE IS    2414.34226 AT (  327629.54,  3783002.85,   251.00,
  450.72,    0.00)  DC
          2ND HIGHEST VALUE IS    2411.73198 AT (  327629.54,  3783037.88,   249.19,
  450.72,    0.00)  DC
          3RD HIGHEST VALUE IS    2228.91494 AT (  327602.29,  3783040.99,   249.89,
  450.72,    0.00)  DC
          4TH HIGHEST VALUE IS    2166.09223 AT (  327637.32,  3782981.05,   252.52,
  450.72,    0.00)  DC
          5TH HIGHEST VALUE IS    2126.24673 AT (  327580.50,  3783039.43,   250.26,
  450.72,    0.00)  DC
          6TH HIGHEST VALUE IS    2050.44998 AT (  327596.84,  3782991.95,   252.47,
  450.72,    0.00)  DC
          7TH HIGHEST VALUE IS    1972.33200 AT (  327536.13,  3783029.31,   251.30,
  450.72,    0.00)  DC
          8TH HIGHEST VALUE IS    1964.58686 AT (  327571.93,  3783008.30,   252.18,
  450.72,    0.00)  DC
          9TH HIGHEST VALUE IS    1859.41715 AT (  327535.35,  3783052.67,   250.21,
  450.72,    0.00)  DC
         10TH HIGHEST VALUE IS    1836.13670 AT (  327513.55,  3783047.22,   250.56,
  450.72,    0.00)  DC

SLINE2    1ST HIGHEST VALUE IS    2598.06159 AT (  326276.71,  3786559.27,   230.89,
  280.81,    0.00)  DC
          2ND HIGHEST VALUE IS    2489.99856 AT (  326240.82,  3786563.05,   230.22,
  280.81,    0.00)  DC
          3RD HIGHEST VALUE IS    2400.67594 AT (  326216.27,  3786552.66,   230.48,
  280.81,    0.00)  DC
          4TH HIGHEST VALUE IS    2192.18969 AT (  326327.72,  3786552.66,   232.90,
  280.81,    0.00)  DC
          5TH HIGHEST VALUE IS    2096.23606 AT (  326187.93,  3786531.88,   230.63,
  280.81,    0.00)  DC
          6TH HIGHEST VALUE IS    1922.61942 AT (  326122.76,  3786597.05,   227.58,
  280.81,    0.00)  DC
          7TH HIGHEST VALUE IS    1829.03878 AT (  326162.43,  3786514.88,   230.72,
  280.81,    0.00)  DC
          8TH HIGHEST VALUE IS    1817.62473 AT (  326096.31,  3786588.55,   227.74,
  280.81,    0.00)  DC
          9TH HIGHEST VALUE IS    1737.19935 AT (  326063.26,  3786579.11,   228.28,
  280.81,    0.00)  DC
         10TH HIGHEST VALUE IS    1682.88415 AT (  326354.16,  3786555.50,   233.97,
  280.81,    0.00)  DC
```

```
ALL       1ST HIGHEST VALUE IS    2600.53555 AT (  326276.71,  3786559.27,   230.89,
  280.81,    0.00)  DC
          2ND HIGHEST VALUE IS    2492.10017 AT (  326240.82,  3786563.05,   230.22,
  280.81,    0.00)  DC
          3RD HIGHEST VALUE IS    2414.45903 AT (  327629.54,  3783002.85,   251.00,
  450.72,    0.00)  DC
          4TH HIGHEST VALUE IS    2411.89686 AT (  327629.54,  3783037.88,   249.19,
  450.72,    0.00)  DC
          5TH HIGHEST VALUE IS    2403.08872 AT (  326216.27,  3786552.66,   230.48,
  280.81,    0.00)  DC
          6TH HIGHEST VALUE IS    2229.06154 AT (  327602.29,  3783040.99,   249.89,
  450.72,    0.00)  DC
          7TH HIGHEST VALUE IS    2195.74316 AT (  326327.72,  3786552.66,   232.90,
  280.81,    0.00)  DC
          8TH HIGHEST VALUE IS    2166.19097 AT (  327637.32,  3782981.05,   252.52,
  450.72,    0.00)  DC
          9TH HIGHEST VALUE IS    2126.38733 AT (  327580.50,  3783039.43,   250.26,
  450.72,    0.00)  DC
         10TH HIGHEST VALUE IS    2098.30899 AT (  326187.93,  3786531.88,   230.63,
  280.81,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HRAs\LRCCC and
Janss\LRCCC and Janss.isc      ***        07/19/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        09:21:45

                                  PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

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

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

 A Total of             0 Fatal Error Message(s)
 A Total of             2 Warning Message(s)
 A Total of           867 Informational Message(s)

 A Total of         43824 Hours Were Processed

 A Total of           460 Calm Hours Identified

 A Total of           407 Missing Hours Identified (  0.93 Percent)


    ******** FATAL ERROR MESSAGES ********
```

```
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W361      25       COCARD: Multiyear PERIOD/ANNUAL values for NO2/SO2 require
MULTYEAR Opt
 MX W403     423       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

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

HARP2 - HRACalc (dated 22118) 9/8/2023 5:56:21 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
********************************
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

********************************
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.5

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.5
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

********************************
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments.  The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

********************************
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

**Fraction at time at home**
3rd Trimester to 16 years: ON
16 years to 70 years: ON

*********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

*********************************
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\LRCCCCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\LRCCCCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\LRCCCNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\LRCCCNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\LRCCCNCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\LRCCCNCAcuteRiskSumByRec.csv
HRA ran successfully

| REC | GRP | NETID | X | Y | RISK_SUM | SCENARIO | INH_RISK | SOIL_RISK | DERMAL_R | MMILK_RIS | WATER_RIS | FISH_RISK | CROP_RISK | BEEF_RISK | DAIRY_RIS | PIG_RISK | CHICKEN_R | EGG_RISK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ALL | | 327629.5 | 3783003 | 1.68E-06 | 1.5YrCance | 1.68E-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 |
| 2 | ALL | | 327629.5 | 3783038 | 2.08E-06 | 1.5YrCance | 2.08E-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 |
| 3 | ALL | | 327602.3 | 3783041 | 1.50E-06 | 1.5YrCance | 1.50E-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 |
| 4 | ALL | | 327580.5 | 3783039 | 1.17E-06 | 1.5YrCance | 1.17E-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 |
| 5 | ALL | | 327571.9 | 3783008 | 8.31E-07 | 1.5YrCance | 8.31E-07 | 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 |
| 6 | ALL | | 327552.5 | 3782962 | 2.92E-07 | 1.5YrCance | 2.92E-07 | 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 |
| 7 | ALL | | 327564.9 | 3782948 | 2.67E-07 | 1.5YrCance | 2.67E-07 | 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 |
| 8 | ALL | | 327585.2 | 3782925 | 2.32E-07 | 1.5YrCance | 2.32E-07 | 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 |
| 9 | ALL | | 327600.7 | 3782900 | 1.90E-07 | 1.5YrCance | 1.90E-07 | 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 |
| 10 | ALL | | 327614.8 | 3782915 | 2.53E-07 | 1.5YrCance | 2.53E-07 | 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 |
| 11 | ALL | | 327638.1 | 3782948 | 6.83E-07 | 1.5YrCance | 6.83E-07 | 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 |
| 12 | ALL | | 327637.3 | 3782981 | 1.42E-06 | 1.5YrCance | 1.42E-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 |
| 13 | ALL | | 327596.8 | 3782992 | 9.49E-07 | 1.5YrCance | 9.49E-07 | 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 |
| 14 | ALL | | 327600 | 3782965 | 6.59E-07 | 1.5YrCance | 6.59E-07 | 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 |
| 15 | ALL | | 327518.2 | 3782951 | 2.68E-07 | 1.5YrCance | 2.68E-07 | 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 |
| 16 | ALL | | 327529.1 | 3782931 | 1.96E-07 | 1.5YrCance | 1.96E-07 | 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 |
| 17 | ALL | | 327541.6 | 3782910 | 1.58E-07 | 1.5YrCance | 1.58E-07 | 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 |
| 18 | ALL | | 327557.9 | 3782895 | 1.39E-07 | 1.5YrCance | 1.39E-07 | 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 |
| 19 | ALL | | 327568 | 3782879 | 1.22E-07 | 1.5YrCance | 1.22E-07 | 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 |
| 20 | ALL | | 327536.1 | 3783029 | 7.23E-07 | 1.5YrCance | 7.23E-07 | 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 |
| 21 | ALL | | 327513.6 | 3783047 | 6.80E-07 | 1.5YrCance | 6.80E-07 | 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 |
| 22 | ALL | | 327535.4 | 3783053 | 8.30E-07 | 1.5YrCance | 8.30E-07 | 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 |
| 23 | ALL | | 327484 | 3783053 | 5.73E-07 | 1.5YrCance | 5.73E-07 | 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 |
| 24 | ALL | | 327459.1 | 3783067 | 5.22E-07 | 1.5YrCance | 5.22E-07 | 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 |
| 25 | ALL | | 327456.7 | 3783032 | 4.69E-07 | 1.5YrCance | 4.69E-07 | 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 |
| 26 | ALL | | 327946.3 | 3783145 | 3.36E-07 | 1.5YrCance | 3.36E-07 | 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 |
| 27 | ALL | | 327945.6 | 3783029 | 4.94E-07 | 1.5YrCance | 4.94E-07 | 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 |
| 28 | ALL | | 327942.5 | 3782957 | 6.29E-07 | 1.5YrCance | 6.29E-07 | 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 |
| 29 | ALL | | 327874 | 3782936 | 8.86E-07 | 1.5YrCance | 8.86E-07 | 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 |
| 30 | ALL | | 327965.8 | 3782871 | 2.82E-07 | 1.5YrCance | 2.82E-07 | 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 |
| 31 | ALL | | 328050.7 | 3782899 | 3.17E-07 | 1.5YrCance | 3.17E-07 | 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 |
| 32 | ALL | | 328061.5 | 3782944 | 3.78E-07 | 1.5YrCance | 3.78E-07 | 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 |
| 33 | ALL | | 328030.4 | 3783127 | 2.92E-07 | 1.5YrCance | 2.92E-07 | 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 |
| 34 | ALL | | 327980.6 | 3782832 | 1.69E-07 | 1.5YrCance | 1.69E-07 | 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 |
| 35 | ALL | | 327955.7 | 3782772 | 9.08E-08 | 1.5YrCance | 9.08E-08 | 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 |
| 36 | ALL | | 328042.9 | 3782835 | 1.83E-07 | 1.5YrCance | 1.83E-07 | 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 |
| 37 | ALL | | 328186.9 | 3783046 | 4.08E-08 | 1.5YrCance | 4.08E-08 | 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 |
| 38 | ALL | | 328157.3 | 3783081 | 5.39E-08 | 1.5YrCance | 5.39E-08 | 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 |
| 39 | ALL | | 326354.2 | 3786556 | 7.37E-09 | 1.5YrCance | 7.37E-09 | 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 |
| 40 | ALL | | 326327.7 | 3786553 | 7.30E-09 | 1.5YrCance | 7.30E-09 | 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 |
| 41 | ALL | | 326276.7 | 3786559 | 7.15E-09 | 1.5YrCance | 7.15E-09 | 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 |
| 42 | ALL | | 326240.8 | 3786563 | 7.09E-09 | 1.5YrCance | 7.09E-09 | 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 |
| 43 | ALL | | 326216.3 | 3786553 | 7.14E-09 | 1.5YrCance | 7.14E-09 | 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 |
| 44 | ALL | | 326187.9 | 3786532 | 7.21E-09 | 1.5YrCance | 7.21E-09 | 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 |
| 45 | ALL | | 326162.4 | 3786515 | 7.26E-09 | 1.5YrCance | 7.26E-09 | 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 |
| 46 | ALL | | 326136.9 | 3786492 | 7.36E-09 | 1.5YrCance | 7.36E-09 | 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 |
| 47 | ALL | | 326105.8 | 3786483 | 7.38E-09 | 1.5YrCance | 7.38E-09 | 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 |
| 48 | ALL | | 326085.9 | 3786471 | 7.41E-09 | 1.5YrCance | 7.41E-09 | 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 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 49 | ALL | 326066.1 | 3786461 | 7.44E-09 | 1.5YrCance | 7.44E-09 | 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 |
| 50 | ALL | 326047.2 | 3786450 | 7.48E-09 | 1.5YrCance | 7.48E-09 | 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 |
| 51 | ALL | 326122.8 | 3786597 | 6.84E-09 | 1.5YrCance | 6.84E-09 | 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 |
| 52 | ALL | 326096.3 | 3786589 | 6.86E-09 | 1.5YrCance | 6.86E-09 | 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 |
| 53 | ALL | 326063.3 | 3786579 | 6.91E-09 | 1.5YrCance | 6.91E-09 | 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 |
| 54 | ALL | 326054.8 | 3786536 | 7.07E-09 | 1.5YrCance | 7.07E-09 | 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 |
| 55 | ALL | 326035.9 | 3786531 | 7.08E-09 | 1.5YrCance | 7.08E-09 | 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 |
| 56 | ALL | 326010.4 | 3786517 | 7.12E-09 | 1.5YrCance | 7.12E-09 | 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 |
| 57 | ALL | 326013.2 | 3786567 | 6.94E-09 | 1.5YrCance | 6.94E-09 | 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 |
| 58 | ALL | 325987.7 | 3786559 | 6.98E-09 | 1.5YrCance | 6.98E-09 | 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 |
| 59 | ALL | 325975.4 | 3786545 | 7.03E-09 | 1.5YrCance | 7.03E-09 | 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 |
| 60 | ALL | 325923.5 | 3786566 | 7.01E-09 | 1.5YrCance | 7.01E-09 | 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 |
| 61 | ALL | 326450.5 | 3786545 | 8.06E-09 | 1.5YrCance | 8.06E-09 | 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 |
| 62 | ALL | 326447.7 | 3786511 | 7.80E-09 | 1.5YrCance | 7.80E-09 | 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 |

| REC | GRP | NETID | X | Y | SCENARIO | CV | CNS | IMMUN | KIDNEY | GILV | REPRO/DE | RESP | SKIN | EYE | BONE/TEE | ENDO | BLOOD | ODOR | GENERAL | MAXHI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ALL | | 327629.5 | 3783003 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.52E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.52E-03 |
| 2 | ALL | | 327629.5 | 3783038 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.88E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.88E-03 |
| 3 | ALL | | 327602.3 | 3783041 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.36E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.36E-03 |
| 4 | ALL | | 327580.5 | 3783039 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.06E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.06E-03 |
| 5 | ALL | | 327571.9 | 3783008 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.52E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.52E-04 |
| 6 | ALL | | 327552.5 | 3782962 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.64E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.64E-04 |
| 7 | ALL | | 327564.9 | 3782948 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.41E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.41E-04 |
| 8 | ALL | | 327585.2 | 3782925 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.10E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.10E-04 |
| 9 | ALL | | 327600.7 | 3782900 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.72E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.72E-04 |
| 10 | ALL | | 327614.8 | 3782915 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.29E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.29E-04 |
| 11 | ALL | | 327638.1 | 3782948 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.18E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.18E-04 |
| 12 | ALL | | 327637.3 | 3782981 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.28E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.28E-03 |
| 13 | ALL | | 327596.8 | 3782992 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.59E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.59E-04 |
| 14 | ALL | | 327600 | 3782965 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.97E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.97E-04 |
| 15 | ALL | | 327518.2 | 3782951 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.43E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.43E-04 |
| 16 | ALL | | 327529.1 | 3782931 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.78E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.78E-04 |
| 17 | ALL | | 327541.6 | 3782910 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.43E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.43E-04 |
| 18 | ALL | | 327557.9 | 3782895 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.26E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.26E-04 |
| 19 | ALL | | 327568 | 3782879 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.10E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.10E-04 |
| 20 | ALL | | 327536.1 | 3783029 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.54E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.54E-04 |
| 21 | ALL | | 327513.6 | 3783047 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.16E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.16E-04 |
| 22 | ALL | | 327535.4 | 3783053 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.51E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.51E-04 |
| 23 | ALL | | 327484 | 3783053 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.18E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.18E-04 |
| 24 | ALL | | 327459.1 | 3783067 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.72E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.72E-04 |
| 25 | ALL | | 327456.7 | 3783032 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.25E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.25E-04 |
| 26 | ALL | | 327946.3 | 3783145 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.04E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.04E-04 |
| 27 | ALL | | 327945.6 | 3783029 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.47E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.47E-04 |
| 28 | ALL | | 327942.5 | 3782957 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.69E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.69E-04 |
| 29 | ALL | | 327874 | 3782936 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.02E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.02E-04 |
| 30 | ALL | | 327965.8 | 3782871 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.55E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.55E-04 |
| 31 | ALL | | 328050.7 | 3782899 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.87E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.87E-04 |
| 32 | ALL | | 328061.5 | 3782944 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.42E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.42E-04 |
| 33 | ALL | | 328030.4 | 3783127 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.65E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.65E-04 |
| 34 | ALL | | 327980.6 | 3782832 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.53E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.53E-04 |
| 35 | ALL | | 327955.7 | 3782772 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.22E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.22E-05 |
| 36 | ALL | | 328042.9 | 3782835 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.66E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.66E-04 |
| 37 | ALL | | 328186.9 | 3783046 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.69E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.69E-05 |
| 38 | ALL | | 328157.3 | 3783081 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.88E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.88E-05 |
| 39 | ALL | | 326354.2 | 3786556 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.67E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.67E-06 |
| 40 | ALL | | 326327.7 | 3786553 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.61E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.61E-06 |
| 41 | ALL | | 326276.7 | 3786559 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.47E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.47E-06 |
| 42 | ALL | | 326240.8 | 3786563 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.42E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.42E-06 |
| 43 | ALL | | 326216.3 | 3786553 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.46E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.46E-06 |
| 44 | ALL | | 326187.9 | 3786532 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.52E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.52E-06 |
| 45 | ALL | | 326162.4 | 3786515 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.57E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.57E-06 |
| 46 | ALL | | 326136.9 | 3786492 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.66E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.66E-06 |
| 47 | ALL | | 326105.8 | 3786483 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.68E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.68E-06 |
| 48 | ALL | | 326085.9 | 3786471 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.70E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.70E-06 |
| 49 | ALL | | 326066.1 | 3786461 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.73E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.73E-06 |
| 50 | ALL | | 326047.2 | 3786450 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.77E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.77E-06 |
| 51 | ALL | | 326122.8 | 3786597 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.19E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.19E-06 |
| 52 | ALL | | 326096.3 | 3786589 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.21E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.21E-06 |
| 53 | ALL | | 326063.3 | 3786579 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.25E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.25E-06 |
| 54 | ALL | | 326054.8 | 3786536 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.40E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.40E-06 |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | ALL | 326035.9 | 3786531 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.41E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.41E-06 |
| 56 | ALL | 326010.4 | 3786517 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.44E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.44E-06 |
| 57 | ALL | 326013.2 | 3786567 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.28E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.28E-06 |
| 58 | ALL | 325987.7 | 3786559 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.31E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.31E-06 |
| 59 | ALL | 325975.4 | 3786545 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.37E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.37E-06 |
| 60 | ALL | 325923.5 | 3786566 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.34E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.34E-06 |
| 61 | ALL | 326450.5 | 3786545 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.30E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.30E-06 |
| 62 | ALL | 326447.7 | 3786511 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.06E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.06E-06 |

# 355 W Janss Road General Plan Amendment and Zone Change HRA Detailed Report

## Table of Contents

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | 355 W Janss Road General Plan Amendment and Zone Change HRA |
| Construction Start Date | 2/1/2027 |
| Operational Year | 2028 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.70 |
| Precipitation (days) | 10.4 |
| Location | 34.20649971935046, -118.88550652180294 |
| County | Ventura |
| City | Thousand Oaks |
| Air District | Ventura County APCD |
| Air Basin | South Central Coast |
| TAZ | 3514 |
| EDFZ | 8 |
| Electric Utility | Southern California Edison |
| Gas Utility | Southern California Gas |
| App Version | 2022.1.1.17 |

## 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 |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 9.00 | Dwelling Unit | 2.15 | 17,550 | 105,416 | — | 27.0 | — |

## 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. | 0.24 | 0.24 | 3.78 | 12.8 | 0.02 | 0.04 | < 0.005 | 0.04 | 0.04 | < 0.005 | 0.04 | — | 2,214 | 2,214 | 0.09 | 0.02 | 0.01 | 2,222 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.29 | 8.47 | 3.78 | 15.1 | 0.03 | 0.05 | 3.06 | 3.11 | 0.05 | 1.34 | 1.38 | — | 2,729 | 2,729 | 0.11 | 0.04 | < 0.005 | 2,739 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.19 | 0.32 | 2.82 | 10.2 | 0.02 | 0.03 | 0.27 | 0.30 | 0.03 | 0.06 | 0.09 | — | 1,776 | 1,776 | 0.07 | 0.02 | < 0.005 | 1,782 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.04 | 0.06 | 0.52 | 1.87 | < 0.005 | 0.01 | 0.05 | 0.06 | 0.01 | 0.01 | 0.02 | — | 294 | 294 | 0.01 | < 0.005 | < 0.005 | 295 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.24 | 0.24 | 3.78 | 12.8 | 0.02 | 0.04 | < 0.005 | 0.04 | 0.04 | < 0.005 | 0.04 | — | 2,214 | 2,214 | 0.09 | 0.02 | 0.01 | 2,222 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.29 | 0.27 | 3.78 | 15.1 | 0.03 | 0.05 | 3.06 | 3.11 | 0.05 | 1.34 | 1.38 | — | 2,729 | 2,729 | 0.11 | 0.04 | < 0.005 | 2,739 |
| 2028 | 0.24 | 8.47 | 3.78 | 12.8 | 0.02 | 0.04 | < 0.005 | 0.04 | 0.04 | < 0.005 | 0.04 | — | 2,217 | 2,217 | 0.09 | 0.02 | < 0.005 | 2,224 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.19 | 0.19 | 2.82 | 10.2 | 0.02 | 0.03 | 0.27 | 0.30 | 0.03 | 0.06 | 0.09 | — | 1,776 | 1,776 | 0.07 | 0.02 | < 0.005 | 1,782 |
| 2028 | 0.02 | 0.32 | 0.25 | 0.87 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 144 | 144 | 0.01 | < 0.005 | < 0.005 | 144 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.04 | 0.03 | 0.52 | 1.87 | < 0.005 | 0.01 | 0.05 | 0.06 | 0.01 | 0.01 | 0.02 | — | 294 | 294 | 0.01 | < 0.005 | < 0.005 | 295 |
| 2028 | < 0.005 | 0.06 | 0.05 | 0.16 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 23.8 | 23.8 | < 0.005 | < 0.005 | < 0.005 | 23.9 |

## 2.4. Operations Emissions Compared Against Thresholds

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

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.42 | 0.80 | 0.35 | 2.93 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 805 | 810 | 0.50 | 0.03 | 2.02 | 832 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.37 | 0.75 | 0.38 | 2.39 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 783 | 787 | 0.50 | 0.03 | 0.17 | 809 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unmit. | 0.39 | 0.76 | 0.37 | 2.55 | 0.01 | 0.01 | 0.57 | 0.58 | 0.01 | 0.14 | 0.16 | 4.54 | 773 | 778 | 0.50 | 0.03 | 0.93 | 800 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.07 | 0.14 | 0.07 | 0.46 | < 0.005 | < 0.005 | 0.10 | 0.11 | < 0.005 | 0.03 | 0.03 | 0.75 | 128 | 129 | 0.08 | < 0.005 | 0.15 | 132 |

## 2.5. Operations Emissions by Sector, Unmitigated

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

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.37 | 0.34 | 0.25 | 2.37 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 614 | 614 | 0.02 | 0.03 | 1.89 | 624 |
| Area | 0.05 | 0.45 | < 0.005 | 0.51 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.37 |
| Energy | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 179 | 179 | 0.02 | < 0.005 | — | 180 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | 0.42 | 0.80 | 0.35 | 2.93 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 805 | 810 | 0.50 | 0.03 | 2.02 | 832 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.36 | 0.34 | 0.28 | 2.35 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 593 | 593 | 0.03 | 0.03 | 0.05 | 602 |
| Area | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Energy | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 179 | 179 | 0.02 | < 0.005 | — | 180 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | 0.37 | 0.75 | 0.38 | 2.39 | 0.01 | 0.01 | 0.59 | 0.60 | 0.01 | 0.15 | 0.16 | 4.54 | 783 | 787 | 0.50 | 0.03 | 0.17 | 809 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.35 | 0.33 | 0.27 | 2.25 | 0.01 | < 0.005 | 0.57 | 0.57 | < 0.005 | 0.14 | 0.15 | — | 583 | 583 | 0.03 | 0.03 | 0.80 | 592 |
| Area | 0.02 | 0.43 | < 0.005 | 0.25 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.67 | 0.67 | < 0.005 | < 0.005 | — | 0.68 |
| Energy | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 179 | 179 | 0.02 | < 0.005 | — | 180 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | 0.39 | 0.76 | 0.37 | 2.55 | 0.01 | 0.01 | 0.57 | 0.58 | 0.01 | 0.14 | 0.16 | 4.54 | 773 | 778 | 0.50 | 0.03 | 0.93 | 800 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.06 | 0.06 | 0.05 | 0.41 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.03 | 0.03 | — | 96.5 | 96.5 | < 0.005 | < 0.005 | 0.13 | 98.0 |
| Area | < 0.005 | 0.08 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.11 | 0.11 | < 0.005 | < 0.005 | — | 0.11 |
| Energy | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 29.7 | 29.7 | < 0.005 | < 0.005 | — | 29.8 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.11 | 1.75 | 1.86 | 0.01 | < 0.005 | — | 2.23 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 0.64 | 0.00 | 0.64 | 0.06 | 0.00 | — | 2.25 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |
| Total | 0.07 | 0.14 | 0.07 | 0.46 | < 0.005 | < 0.005 | 0.10 | 0.11 | < 0.005 | 0.03 | 0.03 | 0.75 | 128 | 129 | 0.08 | < 0.005 | 0.15 | 132 |

# 3. Construction Emissions Details

## 3.1. Demolition (2027) - Unmitigated

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

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.25 | 0.25 | 2.27 | 14.6 | 0.02 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 2,494 | 2,494 | 0.10 | 0.02 | — | 2,502 |
| Demolition | — | — | — | — | — | — | 3.05 | 3.05 | — | 0.46 | 0.46 | — | — | — | — | — | — | — |
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.16 | 1.00 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 171 | 171 | 0.01 | < 0.005 | — | 171 |
| Demolition | — | — | — | — | — | — | 0.21 | 0.21 | — | 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 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.18 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 28.3 | 28.3 | < 0.005 | < 0.005 | — | 28.4 |
| Demolition | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.85 | 6.85 | < 0.005 | < 0.005 | < 0.005 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.03 | 0.02 | 0.58 | 0.36 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 86.6 | 86.6 | 0.01 | 0.01 | < 0.005 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.47 | 0.47 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 5.90 | 5.90 | < 0.005 | < 0.005 | < 0.005 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.08 | 0.08 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.98 | 0.98 | < 0.005 | < 0.005 | < 0.005 | — |

## 3.3. Site Preparation (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 | 0.26 | 0.26 | 1.33 | 15.0 | 0.03 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 2,716 | 2,716 | 0.11 | 0.02 | — | 2,725 |
| Dust From Material Movement | — | — | — | — | — | — | 0.62 | 0.62 | — | 0.07 | 0.07 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.21 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 37.2 | 37.2 | < 0.005 | < 0.005 | — | 37.3 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 6.16 | 6.16 | < 0.005 | < 0.005 | — | 6.18 |
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.85 | 6.85 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.09 | 0.09 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.02 | 0.02 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.5. Grading (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 | 0.23 | 0.23 | 1.20 | 14.2 | 0.02 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 2,455 | 2,455 | 0.10 | 0.02 | — | 2,464 |
| Dust From Material Movement | — | — | — | — | — | — | 2.76 | 2.76 | — | 1.34 | 1.34 | — | — | — | — | — | — | — |
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.27 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 47.1 | 47.1 | < 0.005 | < 0.005 | — | 47.3 |
| 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 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.80 | 7.80 | < 0.005 | < 0.005 | — | 7.82 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.85 | 6.85 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.13 | 0.13 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.02 | 0.02 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.7. Building Construction (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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.24 | 0.24 | 3.74 | 12.8 | 0.02 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 2,201 | 2,201 | 0.09 | 0.02 | — | 2,208 |
| 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 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.24 | 0.24 | 3.74 | 12.8 | 0.02 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 2,201 | 2,201 | 0.09 | 0.02 | — | 2,208 |
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.16 | 0.16 | 2.55 | 8.72 | 0.02 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 1,504 | 1,504 | 0.06 | 0.01 | — | 1,509 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.47 | 1.59 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 249 | 249 | 0.01 | < 0.005 | — | 250 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.79 | 6.79 | < 0.005 | < 0.005 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.85 | 6.85 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 4.66 | 4.66 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.77 | 0.77 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.9. Building Construction (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.24 | 0.24 | 3.74 | 12.8 | 0.02 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 2,201 | 2,201 | 0.09 | 0.02 | — | 2,209 |
| 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 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.16 | 0.54 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 93.1 | 93.1 | < 0.005 | < 0.005 | — | 93.4 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.03 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.4 | 15.4 | < 0.005 | < 0.005 | — | 15.5 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.73 | 6.73 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.28 | 0.28 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.05 | 0.05 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.11. Paving (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.13 | 1.77 | 8.32 | 0.01 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 1,244 | 1,244 | 0.05 | 0.01 | — | 1,248 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.06 | 0.30 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 44.3 | 44.3 | < 0.005 | < 0.005 | — | 44.5 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.33 | 7.33 | < 0.005 | < 0.005 | — | 7.36 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.73 | 6.73 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.24 | 0.24 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.04 | 0.04 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

## 3.13. Architectural Coating (2028) - Unmitigated

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

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.65 | 0.96 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 8.45 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.76 | 4.76 | < 0.005 | < 0.005 | — | 4.77 |
| Architect ural Coatings | — | 0.30 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.79 | 0.79 | < 0.005 | < 0.005 | — | 0.79 |
| Architect ural Coatings | — | 0.05 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 6.73 | 6.73 | < 0.005 | < 0.005 | < 0.005 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.24 | 0.24 | < 0.005 | < 0.005 | < 0.005 | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.04 | 0.04 | < 0.005 | < 0.005 | < 0.005 | — |
| 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 | — |

# 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.37 | 0.34 | 0.25 | 2.37 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 614 | 614 | 0.02 | 0.03 | 1.89 | 624 |
| Total | 0.37 | 0.34 | 0.25 | 2.37 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 614 | 614 | 0.02 | 0.03 | 1.89 | 624 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.36 | 0.34 | 0.28 | 2.35 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 593 | 593 | 0.03 | 0.03 | 0.05 | 602 |
| Total | 0.36 | 0.34 | 0.28 | 2.35 | 0.01 | < 0.005 | 0.59 | 0.59 | < 0.005 | 0.15 | 0.15 | — | 593 | 593 | 0.03 | 0.03 | 0.05 | 602 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.06 | 0.06 | 0.05 | 0.41 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.03 | 0.03 | — | 96.5 | 96.5 | < 0.005 | < 0.005 | 0.13 | 98.0 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.06 | 0.06 | 0.05 | 0.41 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.03 | 0.03 | — | 96.5 | 96.5 | < 0.005 | < 0.005 | 0.13 | 98.0 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 54.1 | 54.1 | 0.01 | < 0.005 | — | 54.4 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 8.96 | 8.96 | < 0.005 | < 0.005 | — | 9.01 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 8.96 | 8.96 | < 0.005 | < 0.005 | — | 9.01 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Total | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Total | 0.01 | 0.01 | 0.10 | 0.04 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 125 | 125 | 0.01 | < 0.005 | — | 126 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 20.7 | 20.7 | < 0.005 | < 0.005 | — | 20.8 |
| Total | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 20.7 | 20.7 | < 0.005 | < 0.005 | — | 20.8 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | — | 0.03 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.05 | 0.04 | < 0.005 | 0.51 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.37 |
| Total | 0.05 | 0.45 | < 0.005 | 0.51 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.37 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.03 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 0.00 | 0.41 | 0.00 | 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | < 0.005 | < 0.005 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.11 | 0.11 | < 0.005 | < 0.005 | — | 0.11 |
| Total | < 0.005 | 0.08 | < 0.005 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.11 | 0.11 | < 0.005 | < 0.005 | — | 0.11 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.65 | 10.6 | 11.2 | 0.07 | < 0.005 | — | 13.5 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.11 | 1.75 | 1.86 | 0.01 | < 0.005 | — | 2.23 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.11 | 1.75 | 1.86 | 0.01 | < 0.005 | — | 2.23 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 3.88 | 0.00 | 3.88 | 0.39 | 0.00 | — | 13.6 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.64 | 0.00 | 0.64 | 0.06 | 0.00 | — | 2.25 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.64 | 0.00 | 0.64 | 0.06 | 0.00 | — | 2.25 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.13 | 0.13 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.02 | 0.02 |

## 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 |
|---|---|---|---|---|---|---|
| Demolition | Demolition | 2/1/2027 | 3/1/2027 | 6.00 | 25.0 | — |
| Site Preparation | Site Preparation | 3/2/2027 | 3/6/2027 | 6.00 | 5.00 | — |
| Grading | Grading | 3/7/2027 | 3/15/2027 | 6.00 | 7.00 | — |
| Building Construction | Building Construction | 3/16/2027 | 1/18/2028 | 6.00 | 265 | — |
| Paving | Paving | 1/19/2028 | 2/2/2028 | 6.00 | 13.0 | — |
| Architectural Coating | Architectural Coating | 2/3/2028 | 2/17/2028 | 6.00 | 13.0 | — |

## 5.2. Off-Road Equipment

## 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Demolition | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 3.00 | 8.00 | 84.0 | 0.37 |
| Demolition | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Demolition | Concrete/Industrial Saws | Diesel | Tier 4 Final | 1.00 | 8.00 | 33.0 | 0.73 |
| Site Preparation | Graders | Diesel | Tier 4 Final | 1.00 | 8.00 | 148 | 0.41 |
| Site Preparation | Scrapers | Diesel | Tier 4 Final | 1.00 | 8.00 | 423 | 0.48 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 7.00 | 84.0 | 0.37 |
| Grading | Graders | Diesel | Tier 4 Final | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 2.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Cranes | Diesel | Tier 4 Final | 1.00 | 8.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Tier 4 Final | 2.00 | 7.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Tier 4 Final | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 6.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Tier 4 Final | 3.00 | 8.00 | 46.0 | 0.45 |
| Paving | Tractors/Loaders/Backhoes | Diesel | Tier 4 Final | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving | Pavers | Diesel | Tier 4 Final | 1.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Tier 4 Final | 1.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Tier 4 Final | 2.00 | 8.00 | 36.0 | 0.38 |
| Paving | Cement and Mortar Mixers | Diesel | Tier 4 Final | 1.00 | 8.00 | 10.0 | 0.56 |
| Architectural Coating | Air Compressors | Diesel | Tier 4 Final | 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 |
|---|---|---|---|---|
| Demolition | — | — | — | — |
| Demolition | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Demolition | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Demolition | Hauling | 36.0 | 0.25 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Grading | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 4.00 | 0.25 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Paving | Vendor | 4.00 | 0.25 | HHDT,MHDT |

| | | | | |
|---|---|---|---|---|
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 4.00 | 0.25 | 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

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |
| Limit vehicle speeds on unpaved roads to 25 mph | 44% | 44% |

## 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 | 35,539 | 11,846 | 0.00 | 0.00 | — |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Demolition | 0.00 | 0.00 | 0.00 | 3,512 | — |
| Site Preparation | — | — | 7.50 | 0.00 | — |

| | | | | | |
|---|---|---|---|---|---|
| Grading | — | — | 7.00 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 |

### 5.6.2. Construction Earthmoving Control Strategies

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

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Single Family Housing | 0.10 | 0% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2027 | 3,579 | 532 | 0.03 | < 0.005 |
| 2028 | 651 | 532 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 85.0 | 85.9 | 77.0 | 30,640 | 820 | 829 | 743 | 295,802 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

| Hearth Type | Unmitigated (number) |
|---|---|
| Single Family Housing | — |
| Wood Fireplaces | 0 |
| Gas Fireplaces | 0 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 9 |
| Conventional Wood Stoves | 0 |
| Catalytic Wood Stoves | 0 |
| Non-Catalytic Wood Stoves | 0 |
| Pellet Wood Stoves | 0 |

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 35538.75 | 11,846 | 0.00 | 0.00 | — |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

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

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Single Family Housing | 57,063 | 346 | 0.0330 | 0.0040 | 390,832 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Single Family Housing | 341,131 | 1,665,609 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Single Family Housing | 7.21 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Single Family Housing | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Single Family Housing | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

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

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

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

### 5.16.2. Process Boilers

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

## 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|
| — | — |

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

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

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

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

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 14.1 | annual days of extreme heat |
| Extreme Precipitation | 4.95 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 29.4 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

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

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

## 6.3. Adjusted Climate Risk Scores

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

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

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

### 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

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

| Indicator | Result for Project Census Tract |
| --- | --- |
| Exposure Indicators | — |
| AQ-Ozone | 53.7 |
| AQ-PM | 40.3 |
| AQ-DPM | 21.8 |
| Drinking Water | 65.2 |
| Lead Risk Housing | 27.0 |
| Pesticides | 0.00 |
| Toxic Releases | 23.0 |
| Traffic | 35.0 |
| Effect Indicators | — |
| CleanUp Sites | 0.00 |
| Groundwater | 49.8 |
| Haz Waste Facilities/Generators | 77.0 |
| Impaired Water Bodies | 66.7 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 17.6 |
| Cardio-vascular | 54.7 |

| | |
|---|---|
| Low Birth Weights | 37.0 |
| Socioeconomic Factor Indicators | — |
| Education | 29.3 |
| Housing | 36.7 |
| Linguistic | 0.00 |
| Poverty | 37.6 |
| Unemployment | 25.2 |

## 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 | 68.52303349 |
| Employed | 87.052483 |
| Median HI | 88.4383421 |
| Education | — |
| Bachelor's or higher | 71.25625561 |
| High school enrollment | 100 |
| Preschool enrollment | 72.96291544 |
| Transportation | — |
| Auto Access | 71.35891184 |
| Active commuting | 11.48466573 |
| Social | — |
| 2-parent households | 81.45771847 |
| Voting | 86.39804953 |
| Neighborhood | — |
| Alcohol availability | 87.33478763 |

| | |
|---|---|
| Park access | 44.3731554 |
| Retail density | 67.88143205 |
| Supermarket access | 83.42101886 |
| Tree canopy | 64.32696009 |
| Housing | — |
| Homeownership | 91.03041191 |
| Housing habitability | 96.53535224 |
| Low-inc homeowner severe housing cost burden | 80.12318748 |
| Low-inc renter severe housing cost burden | 92.7242397 |
| Uncrowded housing | 70.98678301 |
| Health Outcomes | — |
| Insured adults | 71.51289619 |
| Arthritis | 11.9 |
| Asthma ER Admissions | 72.0 |
| High Blood Pressure | 8.4 |
| Cancer (excluding skin) | 6.0 |
| Asthma | 51.9 |
| Coronary Heart Disease | 13.8 |
| Chronic Obstructive Pulmonary Disease | 31.1 |
| Diagnosed Diabetes | 64.3 |
| Life Expectancy at Birth | 80.9 |
| Cognitively Disabled | 9.6 |
| Physically  Disabled | 23.7 |
| Heart Attack ER Admissions | 45.2 |
| Mental Health Not Good | 73.6 |
| Chronic Kidney Disease | 35.4 |
| Obesity | 68.0 |

| | |
|---|---|
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 62.9 |
| Stroke | 34.3 |
| Health Risk Behaviors | — |
| Binge Drinking | 41.7 |
| Current Smoker | 73.9 |
| No Leisure Time for Physical Activity | 71.3 |
| Climate Change Exposures | — |
| Wildfire Risk | 5.1 |
| SLR Inundation Area | 0.0 |
| Children | 79.8 |
| Elderly | 13.7 |
| English Speaking | 58.7 |
| Foreign-born | 33.5 |
| Outdoor Workers | 79.5 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 76.4 |
| Traffic Density | 32.9 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 40.9 |
| Other Decision Support | — |
| 2016 Voting | 93.6 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 23.0 |

| | |
|---|---|
| Healthy Places Index Score for Project Location (b) | 87.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

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

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Land Use | Based on project description. |
| Construction: Construction Phases | Thousand Oaks noise ordinance allows construction 6 days per week. |
| Construction: Off-Road Equipment | Tier 4 Final as project design feature per project description. |
| Construction: Trips and VMT | Trips rounded up to account for whole round trips. |
| Construction: Electricity | Based on electricity for construction. |

HARP2 - HRACalc (dated 22118) 8/23/2023 8:16:52 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********************************
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

**********************************
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.083

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.083
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

**********************************
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

**********************************
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

**Fraction at time at home**
3rd Trimester to 16 years: ON
16 years to 70 years: ON

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

**********************************
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\JanssCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\JanssCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\JanssNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\JanssNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\JanssNCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES CONSTRUCTION\hra\JanssNCAcuteRiskSumByRec.csv
HRA ran successfully

| REC | GRP | NETID | X | Y | RISK_SUM | SCENARIO | INH_RISK | SOIL_RISK | DERMAL_R | MMILK_RIS | WATER_RIS | FISH_RISK | CROP_RISK | BEEF_RISK | DAIRY_RISI | PIG_RISK | CHICKEN_R | EGG_RISK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ALL | | 327629.5 | 3783003 | 1.26E-08 | 1.083YrCar | 1.26E-08 | 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 |
| 2 | ALL | | 327629.5 | 3783038 | 1.54E-08 | 1.083YrCar | 1.54E-08 | 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 |
| 3 | ALL | | 327602.3 | 3783041 | 1.42E-08 | 1.083YrCar | 1.42E-08 | 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 |
| 4 | ALL | | 327580.5 | 3783039 | 1.35E-08 | 1.083YrCar | 1.35E-08 | 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 |
| 5 | ALL | | 327571.9 | 3783008 | 1.08E-08 | 1.083YrCar | 1.08E-08 | 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 |
| 6 | ALL | | 327552.5 | 3782962 | 6.75E-09 | 1.083YrCar | 6.75E-09 | 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 |
| 7 | ALL | | 327564.9 | 3782948 | 6.40E-09 | 1.083YrCar | 6.40E-09 | 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 |
| 8 | ALL | | 327585.2 | 3782925 | 5.94E-09 | 1.083YrCar | 5.94E-09 | 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 |
| 9 | ALL | | 327600.7 | 3782900 | 5.48E-09 | 1.083YrCar | 5.48E-09 | 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 |
| 10 | ALL | | 327614.8 | 3782915 | 5.96E-09 | 1.083YrCar | 5.96E-09 | 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 |
| 11 | ALL | | 327638.1 | 3782948 | 8.16E-09 | 1.083YrCar | 8.16E-09 | 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 |
| 12 | ALL | | 327637.3 | 3782981 | 1.07E-08 | 1.083YrCar | 1.07E-08 | 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 |
| 13 | ALL | | 327596.8 | 3782992 | 1.06E-08 | 1.083YrCar | 1.06E-08 | 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 |
| 14 | ALL | | 327600 | 3782965 | 8.77E-09 | 1.083YrCar | 8.77E-09 | 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 |
| 15 | ALL | | 327518.2 | 3782951 | 7.03E-09 | 1.083YrCar | 7.03E-09 | 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 |
| 16 | ALL | | 327529.1 | 3782931 | 5.99E-09 | 1.083YrCar | 5.99E-09 | 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 |
| 17 | ALL | | 327541.6 | 3782910 | 5.41E-09 | 1.083YrCar | 5.41E-09 | 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 |
| 18 | ALL | | 327557.9 | 3782895 | 5.05E-09 | 1.083YrCar | 5.05E-09 | 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 |
| 19 | ALL | | 327568 | 3782879 | 4.77E-09 | 1.083YrCar | 4.77E-09 | 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 |
| 20 | ALL | | 327536.1 | 3783029 | 1.17E-08 | 1.083YrCar | 1.17E-08 | 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 |
| 21 | ALL | | 327513.6 | 3783047 | 1.25E-08 | 1.083YrCar | 1.25E-08 | 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 |
| 22 | ALL | | 327535.4 | 3783053 | 1.32E-08 | 1.083YrCar | 1.32E-08 | 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 |
| 23 | ALL | | 327484 | 3783053 | 1.25E-08 | 1.083YrCar | 1.25E-08 | 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 |
| 24 | ALL | | 327459.1 | 3783067 | 1.50E-08 | 1.083YrCar | 1.50E-08 | 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 |
| 25 | ALL | | 327456.7 | 3783032 | 1.39E-08 | 1.083YrCar | 1.39E-08 | 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 |
| 26 | ALL | | 327946.3 | 3783145 | 4.24E-08 | 1.083YrCar | 4.24E-08 | 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 |
| 27 | ALL | | 327945.6 | 3783029 | 3.02E-08 | 1.083YrCar | 3.02E-08 | 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 |
| 28 | ALL | | 327942.5 | 3782957 | 1.34E-08 | 1.083YrCar | 1.34E-08 | 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 |
| 29 | ALL | | 327874 | 3782936 | 2.53E-08 | 1.083YrCar | 2.53E-08 | 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 |
| 30 | ALL | | 327965.8 | 3782871 | 8.22E-09 | 1.083YrCar | 8.22E-09 | 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 |
| 31 | ALL | | 328050.7 | 3782899 | 1.12E-08 | 1.083YrCar | 1.12E-08 | 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 |
| 32 | ALL | | 328061.5 | 3782944 | 1.79E-08 | 1.083YrCar | 1.79E-08 | 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 |
| 33 | ALL | | 328030.4 | 3783127 | 1.52E-08 | 1.083YrCar | 1.52E-08 | 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 |
| 34 | ALL | | 327980.6 | 3782832 | 6.56E-09 | 1.083YrCar | 6.56E-09 | 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 |
| 35 | ALL | | 327955.7 | 3782772 | 4.71E-09 | 1.083YrCar | 4.71E-09 | 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 |
| 36 | ALL | | 328042.9 | 3782835 | 7.72E-09 | 1.083YrCar | 7.72E-09 | 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 |
| 37 | ALL | | 328186.9 | 3783046 | 5.65E-09 | 1.083YrCar | 5.65E-09 | 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 |
| 38 | ALL | | 328157.3 | 3783081 | 6.68E-09 | 1.083YrCar | 6.68E-09 | 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 |
| 39 | ALL | | 326354.2 | 3786556 | 3.26E-06 | 1.083YrCar | 3.26E-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 |
| 40 | ALL | | 326327.7 | 3786553 | 3.90E-06 | 1.083YrCar | 3.90E-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 |
| 41 | ALL | | 326276.7 | 3786559 | 4.57E-06 | 1.083YrCar | 4.57E-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 |
| 42 | ALL | | 326240.8 | 3786563 | 4.15E-06 | 1.083YrCar | 4.15E-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 |
| 43 | ALL | | 326216.3 | 3786553 | 3.27E-06 | 1.083YrCar | 3.27E-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 |
| 44 | ALL | | 326187.9 | 3786532 | 2.45E-06 | 1.083YrCar | 2.45E-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 |
| 45 | ALL | | 326162.4 | 3786515 | 1.99E-06 | 1.083YrCar | 1.99E-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 |
| 46 | ALL | | 326136.9 | 3786492 | 1.54E-06 | 1.083YrCar | 1.54E-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 |
| 47 | ALL | | 326105.8 | 3786483 | 1.31E-06 | 1.083YrCar | 1.31E-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 |
| 48 | ALL | | 326085.9 | 3786471 | 1.17E-06 | 1.083YrCar | 1.17E-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 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 49 | ALL | 326066.1 | 3786461 | 1.04E-06 | 1.083YrCar | 1.04E-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 |
| 50 | ALL | 326047.2 | 3786450 | 9.17E-07 | 1.083YrCar | 9.17E-07 | 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 |
| 51 | ALL | 326122.8 | 3786597 | 2.41E-06 | 1.083YrCar | 2.41E-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 |
| 52 | ALL | 326096.3 | 3786589 | 2.02E-06 | 1.083YrCar | 2.02E-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 |
| 53 | ALL | 326063.3 | 3786579 | 1.67E-06 | 1.083YrCar | 1.67E-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 |
| 54 | ALL | 326054.8 | 3786536 | 1.43E-06 | 1.083YrCar | 1.43E-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 |
| 55 | ALL | 326035.9 | 3786531 | 1.31E-06 | 1.083YrCar | 1.31E-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 |
| 56 | ALL | 326010.4 | 3786517 | 1.14E-06 | 1.083YrCar | 1.14E-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 |
| 57 | ALL | 326013.2 | 3786567 | 1.30E-06 | 1.083YrCar | 1.30E-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 |
| 58 | ALL | 325987.7 | 3786559 | 1.15E-06 | 1.083YrCar | 1.15E-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 |
| 59 | ALL | 325975.4 | 3786545 | 1.06E-06 | 1.083YrCar | 1.06E-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 |
| 60 | ALL | 325923.5 | 3786566 | 8.79E-07 | 1.083YrCar | 8.79E-07 | 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 |
| 61 | ALL | 326450.5 | 3786545 | 2.65E-07 | 1.083YrCar | 2.65E-07 | 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 |
| 62 | ALL | 326447.7 | 3786511 | 1.94E-07 | 1.083YrCar | 1.94E-07 | 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 |

| REC | GRP | NETID | X | Y | SCENARIO | CV | CNS | IMMUN | KIDNEY | GILV | REPRO/DE | RESP | SKIN | EYE | BONE/TEET | ENDO | BLOOD | ODOR | GENERAL | MAXHI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ALL | | 327629.5 | 3783003 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.55E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.55E-05 |
| 2 | ALL | | 327629.5 | 3783038 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.89E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.89E-05 |
| 3 | ALL | | 327602.3 | 3783041 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.74E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.74E-05 |
| 4 | ALL | | 327580.5 | 3783039 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.66E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.66E-05 |
| 5 | ALL | | 327571.9 | 3783008 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 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 | 1.33E-05 |
| 6 | ALL | | 327552.5 | 3782962 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.29E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.29E-06 |
| 7 | ALL | | 327564.9 | 3782948 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.86E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.86E-06 |
| 8 | ALL | | 327585.2 | 3782925 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.30E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.30E-06 |
| 9 | ALL | | 327600.7 | 3782900 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.74E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.74E-06 |
| 10 | ALL | | 327614.8 | 3782915 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.32E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.32E-06 |
| 11 | ALL | | 327638.1 | 3782948 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.00E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.00E-05 |
| 12 | ALL | | 327637.3 | 3782981 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.32E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.32E-05 |
| 13 | ALL | | 327596.8 | 3782992 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.30E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.30E-05 |
| 14 | ALL | | 327600 | 3782965 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.08E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.08E-05 |
| 15 | ALL | | 327518.2 | 3782951 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.64E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.64E-06 |
| 16 | ALL | | 327529.1 | 3782931 | NonCancer | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.36E-06 |
| 17 | ALL | | 327541.6 | 3782910 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.64E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.64E-06 |
| 18 | ALL | | 327557.9 | 3782895 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.21E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.21E-06 |
| 19 | ALL | | 327568 | 3782879 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.86E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.86E-06 |
| 20 | ALL | | 327536.1 | 3783029 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.44E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.44E-05 |
| 21 | ALL | | 327513.6 | 3783047 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.54E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.54E-05 |
| 22 | ALL | | 327535.4 | 3783053 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.63E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.63E-05 |
| 23 | ALL | | 327484 | 3783053 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.53E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.53E-05 |
| 24 | ALL | | 327459.1 | 3783067 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.85E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.85E-05 |
| 25 | ALL | | 327456.7 | 3783032 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.71E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.71E-05 |
| 26 | ALL | | 327946.3 | 3783145 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.21E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.21E-05 |
| 27 | ALL | | 327945.6 | 3783029 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.71E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.71E-05 |
| 28 | ALL | | 327942.5 | 3782957 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.64E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.64E-05 |
| 29 | ALL | | 327874 | 3782936 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.11E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.11E-05 |
| 30 | ALL | | 327965.8 | 3782871 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.01E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.01E-05 |
| 31 | ALL | | 328050.7 | 3782899 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.37E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.37E-05 |
| 32 | ALL | | 328061.5 | 3782944 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.19E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.19E-05 |
| 33 | ALL | | 328030.4 | 3783127 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.87E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.87E-05 |
| 34 | ALL | | 327980.6 | 3782832 | NonCancer | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.06E-06 |
| 35 | ALL | | 327955.7 | 3782772 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.79E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.79E-06 |
| 36 | ALL | | 328042.9 | 3782835 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.49E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.49E-06 |
| 37 | ALL | | 328186.9 | 3783046 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.94E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.94E-06 |
| 38 | ALL | | 328157.3 | 3783081 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.21E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.21E-06 |
| 39 | ALL | | 326354.2 | 3786556 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E-03 |
| 40 | ALL | | 326327.7 | 3786553 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.79E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.79E-03 |
| 41 | ALL | | 326276.7 | 3786559 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.61E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.61E-03 |
| 42 | ALL | | 326240.8 | 3786563 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.10E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.10E-03 |
| 43 | ALL | | 326216.3 | 3786553 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.02E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.02E-03 |
| 44 | ALL | | 326187.9 | 3786532 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.01E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.01E-03 |
| 45 | ALL | | 326162.4 | 3786515 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.45E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.45E-03 |
| 46 | ALL | | 326136.9 | 3786492 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.89E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.89E-03 |
| 47 | ALL | | 326105.8 | 3786483 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.61E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.61E-03 |
| 48 | ALL | | 326085.9 | 3786471 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.44E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.44E-03 |
| 49 | ALL | | 326066.1 | 3786461 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.28E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.28E-03 |
| 50 | ALL | | 326047.2 | 3786450 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.13E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.13E-03 |
| 51 | ALL | | 326122.8 | 3786597 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.96E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.96E-03 |
| 52 | ALL | | 326096.3 | 3786589 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.49E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.49E-03 |
| 53 | ALL | | 326063.3 | 3786579 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.06E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.06E-03 |
| 54 | ALL | | 326054.8 | 3786536 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.76E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.76E-03 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | ALL | 326035.9 | 3786531 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.61E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.61E-03 |
| 56 | ALL | 326010.4 | 3786517 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E-03 |
| 57 | ALL | 326013.2 | 3786567 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.60E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.60E-03 |
| 58 | ALL | 325987.7 | 3786559 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.42E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.42E-03 |
| 59 | ALL | 325975.4 | 3786545 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.31E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.31E-03 |
| 60 | ALL | 325923.5 | 3786566 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.08E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.08E-03 |
| 61 | ALL | 326450.5 | 3786545 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.25E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.25E-04 |
| 62 | ALL | 326447.7 | 3786511 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.38E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.38E-04 |

| REC | X | Y | RISK_SUM LRCCC | RISK_SUM JANSS | RISK_SUM Total |
|---|---|---|---|---|---|
| 1 | 327629.5 | 3783003 | 1.68E-06 | 1.26E-08 | 1.69E-06 |
| 2 | 327629.5 | 3783038 | 2.08E-06 | 1.54E-08 | 2.09E-06 |
| 3 | 327602.3 | 3783041 | 1.50E-06 | 1.42E-08 | 1.52E-06 |
| 4 | 327580.5 | 3783039 | 1.17E-06 | 1.35E-08 | 1.19E-06 |
| 5 | 327571.9 | 3783008 | 8.31E-07 | 1.08E-08 | 8.41E-07 |
| 6 | 327552.5 | 3782962 | 2.92E-07 | 6.75E-09 | 2.98E-07 |
| 7 | 327564.9 | 3782948 | 2.67E-07 | 6.40E-09 | 2.73E-07 |
| 8 | 327585.2 | 3782925 | 2.32E-07 | 5.94E-09 | 2.38E-07 |
| 9 | 327600.7 | 3782900 | 1.90E-07 | 5.48E-09 | 1.95E-07 |
| 10 | 327614.8 | 3782915 | 2.53E-07 | 5.96E-09 | 2.59E-07 |
| 11 | 327638.1 | 3782948 | 6.83E-07 | 8.16E-09 | 6.91E-07 |
| 12 | 327637.3 | 3782981 | 1.42E-06 | 1.07E-08 | 1.43E-06 |
| 13 | 327596.8 | 3782992 | 9.49E-07 | 1.06E-08 | 9.60E-07 |
| 14 | 327600 | 3782965 | 6.59E-07 | 8.77E-09 | 6.68E-07 |
| 15 | 327518.2 | 3782951 | 2.68E-07 | 7.03E-09 | 2.75E-07 |
| 16 | 327529.1 | 3782931 | 1.96E-07 | 5.99E-09 | 2.02E-07 |
| 17 | 327541.6 | 3782910 | 1.58E-07 | 5.41E-09 | 1.64E-07 |
| 18 | 327557.9 | 3782895 | 1.39E-07 | 5.05E-09 | 1.44E-07 |
| 19 | 327568 | 3782879 | 1.22E-07 | 4.77E-09 | 1.27E-07 |
| 20 | 327536.1 | 3783029 | 7.23E-07 | 1.17E-08 | 7.34E-07 |
| 21 | 327513.6 | 3783047 | 6.80E-07 | 1.25E-08 | 6.93E-07 |
| 22 | 327535.4 | 3783053 | 8.30E-07 | 1.32E-08 | 8.43E-07 |
| 23 | 327484 | 3783053 | 5.73E-07 | 1.25E-08 | 5.85E-07 |
| 24 | 327459.1 | 3783067 | 5.22E-07 | 1.50E-08 | 5.37E-07 |
| 25 | 327456.7 | 3783032 | 4.69E-07 | 1.39E-08 | 4.83E-07 |
| 26 | 327946.3 | 3783145 | 3.36E-07 | 4.24E-08 | 3.79E-07 |
| 27 | 327945.6 | 3783029 | 4.94E-07 | 3.02E-08 | 5.24E-07 |
| 28 | 327942.5 | 3782957 | 6.29E-07 | 1.34E-08 | 6.42E-07 |
| 29 | 327874 | 3782936 | 8.86E-07 | 2.53E-08 | 9.11E-07 |
| 30 | 327965.8 | 3782871 | 2.82E-07 | 8.22E-09 | 2.90E-07 |
| 31 | 328050.7 | 3782899 | 3.17E-07 | 1.12E-08 | 3.28E-07 |
| 32 | 328061.5 | 3782944 | 3.78E-07 | 1.79E-08 | 3.96E-07 |
| 33 | 328030.4 | 3783127 | 2.92E-07 | 1.52E-08 | 3.08E-07 |
| 34 | 327980.6 | 3782832 | 1.69E-07 | 6.56E-09 | 1.75E-07 |
| 35 | 327955.7 | 3782772 | 9.08E-08 | 4.71E-09 | 9.55E-08 |
| 36 | 328042.9 | 3782835 | 1.83E-07 | 7.72E-09 | 1.91E-07 |
| 37 | 328186.9 | 3783046 | 4.08E-08 | 5.65E-09 | 4.64E-08 |
| 38 | 328157.3 | 3783081 | 5.39E-08 | 6.68E-09 | 6.06E-08 |
| 39 | 326354.2 | 3786556 | 7.37E-09 | 3.26E-06 | 3.27E-06 |
| 40 | 326327.7 | 3786553 | 7.30E-09 | 3.90E-06 | 3.91E-06 |
| 41 | 326276.7 | 3786559 | 7.15E-09 | 4.57E-06 | 4.58E-06 |
| 42 | 326240.8 | 3786563 | 7.09E-09 | 4.15E-06 | 4.16E-06 |
| 43 | 326216.3 | 3786553 | 7.14E-09 | 3.27E-06 | 3.28E-06 |
| 44 | 326187.9 | 3786532 | 7.21E-09 | 2.45E-06 | 2.46E-06 |
| 45 | 326162.4 | 3786515 | 7.26E-09 | 1.99E-06 | 2.00E-06 |
| 46 | 326136.9 | 3786492 | 7.36E-09 | 1.54E-06 | 1.55E-06 |

| | | | | | |
|---|---|---|---|---|---|
| 47 | 326105.8 | 3786483 | 7.38E-09 | 1.31E-06 | 1.32E-06 |
| 48 | 326085.9 | 3786471 | 7.41E-09 | 1.17E-06 | 1.18E-06 |
| 49 | 326066.1 | 3786461 | 7.44E-09 | 1.04E-06 | 1.05E-06 |
| 50 | 326047.2 | 3786450 | 7.48E-09 | 9.17E-07 | 9.25E-07 |
| 51 | 326122.8 | 3786597 | 6.84E-09 | 2.41E-06 | 2.41E-06 |
| 52 | 326096.3 | 3786589 | 6.86E-09 | 2.02E-06 | 2.03E-06 |
| 53 | 326063.3 | 3786579 | 6.91E-09 | 1.67E-06 | 1.68E-06 |
| 54 | 326054.8 | 3786536 | 7.07E-09 | 1.43E-06 | 1.44E-06 |
| 55 | 326035.9 | 3786531 | 7.08E-09 | 1.31E-06 | 1.32E-06 |
| 56 | 326010.4 | 3786517 | 7.12E-09 | 1.14E-06 | 1.15E-06 |
| 57 | 326013.2 | 3786567 | 6.94E-09 | 1.30E-06 | 1.31E-06 |
| 58 | 325987.7 | 3786559 | 6.98E-09 | 1.15E-06 | 1.16E-06 |
| 59 | 325975.4 | 3786545 | 7.03E-09 | 1.06E-06 | 1.07E-06 |
| 60 | 325923.5 | 3786566 | 7.01E-09 | 8.79E-07 | 8.86E-07 |
| 61 | 326450.5 | 3786545 | 8.06E-09 | 2.65E-07 | 2.73E-07 |
| 62 | 326447.7 | 3786511 | 7.80E-09 | 1.94E-07 | 2.02E-07 |

| REC | X | Y | MAXHI LRCCC | MAXHI JANSS | MAXHI Total |
|---|---|---|---|---|---|
| 1 | 327629.5 | 3783003 | 1.52E-03 | 1.55E-05 | 1.53E-03 |
| 2 | 327629.5 | 3783038 | 1.88E-03 | 1.89E-05 | 1.90E-03 |
| 3 | 327602.3 | 3783041 | 1.36E-03 | 1.74E-05 | 1.38E-03 |
| 4 | 327580.5 | 3783039 | 1.06E-03 | 1.66E-05 | 1.08E-03 |
| 5 | 327571.9 | 3783008 | 7.52E-04 | 1.33E-05 | 7.65E-04 |
| 6 | 327552.5 | 3782962 | 2.64E-04 | 8.29E-06 | 2.72E-04 |
| 7 | 327564.9 | 3782948 | 2.41E-04 | 7.86E-06 | 2.49E-04 |
| 8 | 327585.2 | 3782925 | 2.10E-04 | 7.30E-06 | 2.18E-04 |
| 9 | 327600.7 | 3782900 | 1.72E-04 | 6.74E-06 | 1.78E-04 |
| 10 | 327614.8 | 3782915 | 2.29E-04 | 7.32E-06 | 2.36E-04 |
| 11 | 327638.1 | 3782948 | 6.18E-04 | 1.00E-05 | 6.28E-04 |
| 12 | 327637.3 | 3782981 | 1.28E-03 | 1.32E-05 | 1.30E-03 |
| 13 | 327596.8 | 3782992 | 8.59E-04 | 1.30E-05 | 8.72E-04 |
| 14 | 327600 | 3782965 | 5.97E-04 | 1.08E-05 | 6.07E-04 |
| 15 | 327518.2 | 3782951 | 2.43E-04 | 8.64E-06 | 2.52E-04 |
| 16 | 327529.1 | 3782931 | 1.78E-04 | 7.36E-06 | 1.85E-04 |
| 17 | 327541.6 | 3782910 | 1.43E-04 | 6.64E-06 | 1.50E-04 |
| 18 | 327557.9 | 3782895 | 1.26E-04 | 6.21E-06 | 1.32E-04 |
| 19 | 327568 | 3782879 | 1.10E-04 | 5.86E-06 | 1.16E-04 |
| 20 | 327536.1 | 3783029 | 6.54E-04 | 1.44E-05 | 6.68E-04 |
| 21 | 327513.6 | 3783047 | 6.16E-04 | 1.54E-05 | 6.31E-04 |
| 22 | 327535.4 | 3783053 | 7.51E-04 | 1.63E-05 | 7.68E-04 |
| 23 | 327484 | 3783053 | 5.18E-04 | 1.53E-05 | 5.34E-04 |
| 24 | 327459.1 | 3783067 | 4.72E-04 | 1.85E-05 | 4.91E-04 |
| 25 | 327456.7 | 3783032 | 4.25E-04 | 1.71E-05 | 4.42E-04 |
| 26 | 327946.3 | 3783145 | 3.04E-04 | 5.21E-05 | 3.56E-04 |
| 27 | 327945.6 | 3783029 | 4.47E-04 | 3.71E-05 | 4.84E-04 |
| 28 | 327942.5 | 3782957 | 5.69E-04 | 1.64E-05 | 5.86E-04 |
| 29 | 327874 | 3782936 | 8.02E-04 | 3.11E-05 | 8.33E-04 |
| 30 | 327965.8 | 3782871 | 2.55E-04 | 1.01E-05 | 2.65E-04 |
| 31 | 328050.7 | 3782899 | 2.87E-04 | 1.37E-05 | 3.00E-04 |
| 32 | 328061.5 | 3782944 | 3.42E-04 | 2.19E-05 | 3.64E-04 |
| 33 | 328030.4 | 3783127 | 2.65E-04 | 1.87E-05 | 2.83E-04 |
| 34 | 327980.6 | 3782832 | 1.53E-04 | 8.06E-06 | 1.61E-04 |
| 35 | 327955.7 | 3782772 | 8.22E-05 | 5.79E-06 | 8.80E-05 |
| 36 | 328042.9 | 3782835 | 1.66E-04 | 9.49E-06 | 1.75E-04 |
| 37 | 328186.9 | 3783046 | 3.69E-05 | 6.94E-06 | 4.39E-05 |
| 38 | 328157.3 | 3783081 | 4.88E-05 | 8.21E-06 | 5.70E-05 |
| 39 | 326354.2 | 3786556 | 6.67E-06 | 4.00E-03 | 4.01E-03 |
| 40 | 326327.7 | 3786553 | 6.61E-06 | 4.79E-03 | 4.80E-03 |
| 41 | 326276.7 | 3786559 | 6.47E-06 | 5.61E-03 | 5.62E-03 |
| 42 | 326240.8 | 3786563 | 6.42E-06 | 5.10E-03 | 5.10E-03 |
| 43 | 326216.3 | 3786553 | 6.46E-06 | 4.02E-03 | 4.03E-03 |
| 44 | 326187.9 | 3786532 | 6.52E-06 | 3.01E-03 | 3.01E-03 |
| 45 | 326162.4 | 3786515 | 6.57E-06 | 2.45E-03 | 2.45E-03 |
| 46 | 326136.9 | 3786492 | 6.66E-06 | 1.89E-03 | 1.90E-03 |

| | | | | | |
|---|---|---|---|---|---|
| 47 | 326105.8 | 3786483 | 6.68E-06 | 1.61E-03 | 1.62E-03 |
| 48 | 326085.9 | 3786471 | 6.70E-06 | 1.44E-03 | 1.45E-03 |
| 49 | 326066.1 | 3786461 | 6.73E-06 | 1.28E-03 | 1.28E-03 |
| 50 | 326047.2 | 3786450 | 6.77E-06 | 1.13E-03 | 1.13E-03 |
| 51 | 326122.8 | 3786597 | 6.19E-06 | 2.96E-03 | 2.96E-03 |
| 52 | 326096.3 | 3786589 | 6.21E-06 | 2.49E-03 | 2.49E-03 |
| 53 | 326063.3 | 3786579 | 6.25E-06 | 2.06E-03 | 2.06E-03 |
| 54 | 326054.8 | 3786536 | 6.40E-06 | 1.76E-03 | 1.77E-03 |
| 55 | 326035.9 | 3786531 | 6.41E-06 | 1.61E-03 | 1.61E-03 |
| 56 | 326010.4 | 3786517 | 6.44E-06 | 1.41E-03 | 1.41E-03 |
| 57 | 326013.2 | 3786567 | 6.28E-06 | 1.60E-03 | 1.61E-03 |
| 58 | 325987.7 | 3786559 | 6.31E-06 | 1.42E-03 | 1.42E-03 |
| 59 | 325975.4 | 3786545 | 6.37E-06 | 1.31E-03 | 1.31E-03 |
| 60 | 325923.5 | 3786566 | 6.34E-06 | 1.08E-03 | 1.09E-03 |
| 61 | 326450.5 | 3786545 | 7.30E-06 | 3.25E-04 | 3.33E-04 |
| 62 | 326447.7 | 3786511 | 7.06E-06 | 2.38E-04 | 2.46E-04 |

```
** Lakes Environmental AERMOD MPI
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 3/9/2023
** File: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\Los Robles
Medical Center - Operation\Los Robles Medical Center.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\Los Robl
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Los Robles Medical Center.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      327689.900  3782993.940      249.600
** DESCRSRC Emergency Generator
** Source Parameters **
   SRCPARAM STCK1             1.0     3.353   744.261 69.685488912909 0.29208984

** Building Downwash **
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67     0.00
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67     0.00

   BUILDWID STCK1           74.81    78.15    79.13    77.69    73.90    67.86
```

```
   BUILDWID STCK1           59.76    49.84    38.41    49.84    59.76    67.86
   BUILDWID STCK1           73.90    77.69    79.13    78.15    74.81     0.00
   BUILDWID STCK1           74.81    78.15    79.13    77.69    73.90    67.86
   BUILDWID STCK1           59.76    49.84    38.41    49.84    59.76    67.86
   BUILDWID STCK1           73.90    77.69    79.13    78.15    74.81     0.00

   BUILDLEN STCK1           49.84    59.76    67.86    73.90    77.69    79.13
   BUILDLEN STCK1           78.15    74.81    69.19    74.81    78.15    79.13
   BUILDLEN STCK1           77.69    73.90    67.86    59.76    49.84     0.00
   BUILDLEN STCK1           49.84    59.76    67.86    73.90    77.69    79.13
   BUILDLEN STCK1           78.15    74.81    69.19    74.81    78.15    79.13
   BUILDLEN STCK1           77.69    73.90    67.86    59.76    49.84     0.00

   XBADJ    STCK1           -2.59    -1.52    -0.41     0.71     1.81     2.86
   XBADJ    STCK1            3.82     4.66     5.36    -0.77    -6.88   -12.78
   XBADJ    STCK1          -18.29   -23.24   -27.49   -30.91   -33.38     0.00
   XBADJ    STCK1          -47.26   -58.24   -67.45   -74.61   -79.50   -81.98
   XBADJ    STCK1          -81.97   -79.47   -74.55   -74.04   -71.28   -66.35
   XBADJ    STCK1          -59.40   -50.65   -40.37   -28.85   -16.46     0.00

   YBADJ    STCK1          -36.63   -32.20   -26.78   -20.56   -13.71    -6.44
   YBADJ    STCK1            1.03     8.46    15.64    22.34    28.36    33.52
   YBADJ    STCK1           37.66    40.66    42.42    42.89    42.06     0.00
   YBADJ    STCK1           36.63    32.20    26.78    20.56    13.71     6.44
   YBADJ    STCK1           -1.03    -8.46   -15.64   -22.34   -28.36   -33.52
   YBADJ    STCK1          -37.66   -40.66   -42.42   -42.89   -42.06     0.00

   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Los Robles Medical Center.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "..\Thousand-Oaks-2015-2019\2015-2019 Thousand Oaks.SFC"
   PROFFILE "..\Thousand-Oaks-2015-2019\2015-2019 Thousand Oaks.PFL"
   SURFDATA 23130 2015
   UAIRDATA 93214 2015
   SITEDATA 56435 2015
```

```
   PROFBASE 247.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Los Robles Medical Center.AD\01H1GALL.PLT" 31
   PLOTFILE PERIOD ALL "Los Robles Medical Center.AD\PE00GALL.PLT" 32
   SUMMFILE "Los Robles Medical Center.sum"
OU FINISHED


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

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

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 SO W320      38        PPARM: Input Parameter May Be Out-of-Range for Parameter
      VS
 MX W403     100       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

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

↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los
Robles Medical Center\Los Robl ***        03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***       10:13:02

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                           ***     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:
         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:  PM_10

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

 **This Run Includes:      1 Source(s);       1 Source Group(s); and      38
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:      0 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:  21112

 **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)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
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) =   247.00 ;  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:   Los Robles Medical Center.err

 **File for Summary of Results:   Los Robles Medical Center.sum

↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los
Robles Medical Center\Los Robl ***        03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        10:13:02

                                  PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data


                                                  *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
 STCK1            0   0.10000E+01  327689.9 3782993.9   249.6     3.35   744.26
69.69     0.29    YES     NO    NO
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los
Robles Medical Center\Los Robl ***        03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        10:13:02

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

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



  ALL        STCK1       ,
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los
Robles Medical Center\Los Robl ***        03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        10:13:02

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                         *** DIRECTION SPECIFIC BUILDING DIMENSIONS
***


 SOURCE ID: STCK1
  IFV    BH      BW      BL      XADJ    YADJ     IFV    BH      BW      BL      XADJ
  YADJ
    1   10.7,   74.8,   49.8,   -2.6,  -36.6,      2   10.7,   78.1,   59.8,   -1.5,
 -32.2,
    3   10.7,   79.1,   67.9,   -0.4,  -26.8,      4   10.7,   77.7,   73.9,    0.7,
 -20.6,
    5   10.7,   73.9,   77.7,    1.8,  -13.7,      6   10.7,   67.9,   79.1,    2.9,
  -6.4,
    7   10.7,   59.8,   78.1,    3.8,    1.0,      8   10.7,   49.8,   74.8,    4.7,
   8.5,
    9   10.7,   38.4,   69.2,    5.4,   15.6,     10   10.7,   49.8,   74.8,   -0.8,
  22.3,
   11   10.7,   59.8,   78.1,   -6.9,   28.4,     12   10.7,   67.9,   79.1,  -12.8,
  33.5,
   13   10.7,   73.9,   77.7,  -18.3,   37.7,     14   10.7,   77.7,   73.9,  -23.2,
  40.7,
   15   10.7,   79.1,   67.9,  -27.5,   42.4,     16   10.7,   78.1,   59.8,  -30.9,
  42.9,
   17   10.7,   74.8,   49.8,  -33.4,   42.1,     18    0.0,    0.0,    0.0,    0.0,
```

```
  0.0,
  19   10.7,   74.8,   49.8,  -47.3,   36.6,     20   10.7,   78.1,   59.8,  -58.2,
 32.2,
  21   10.7,   79.1,   67.9,  -67.5,   26.8,     22   10.7,   77.7,   73.9,  -74.6,
 20.6,
  23   10.7,   73.9,   77.7,  -79.5,   13.7,     24   10.7,   67.9,   79.1,  -82.0,
  6.4,
  25   10.7,   59.8,   78.1,  -82.0,   -1.0,     26   10.7,   49.8,   74.8,  -79.5,
 -8.5,
  27   10.7,   38.4,   69.2,  -74.5,  -15.6,     28   10.7,   49.8,   74.8,  -74.0,
-22.3,
  29   10.7,   59.8,   78.1,  -71.3,  -28.4,     30   10.7,   67.9,   79.1,  -66.3,
-33.5,
  31   10.7,   73.9,   77.7,  -59.4,  -37.7,     32   10.7,   77.7,   73.9,  -50.6,
-40.7,
  33   10.7,   79.1,   67.9,  -40.4,  -42.4,     34   10.7,   78.1,   59.8,  -28.9,
-42.9,
  35   10.7,   74.8,   49.8,  -16.5,  -42.1,     36    0.0,    0.0,    0.0,    0.0,
  0.0,
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

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

     ( 327629.5, 3783002.8,     251.0,     450.7,       0.0);          ( 327629.5,
3783037.9,     249.2,     450.7,       0.0);
     ( 327602.3, 3783041.0,     249.9,     450.7,       0.0);          ( 327580.5,
3783039.4,     250.3,     450.7,       0.0);
     ( 327571.9, 3783008.3,     252.2,     450.7,       0.0);          ( 327552.5,
3782961.6,     256.3,     450.7,       0.0);
     ( 327564.9, 3782948.4,     256.9,     450.7,       0.0);          ( 327585.2,
3782925.0,     257.7,     450.7,       0.0);
     ( 327600.7, 3782900.1,     258.5,     450.7,       0.0);          ( 327614.8,
3782914.9,     257.8,     450.7,       0.0);
     ( 327638.1, 3782948.4,     255.0,     450.7,       0.0);          ( 327637.3,
3782981.0,     252.5,     450.7,       0.0);
     ( 327596.8, 3782991.9,     252.5,     450.7,       0.0);          ( 327600.0,
3782965.5,     254.2,     450.7,       0.0);
     ( 327518.2, 3782951.5,     255.7,     450.7,       0.0);          ( 327529.1,
3782931.2,     257.2,     450.7,       0.0);
     ( 327541.6, 3782910.2,     258.2,     450.7,       0.0);          ( 327557.9,
3782894.6,     258.9,     450.7,       0.0);
```

```
     ( 327568.0, 3782879.1,     259.5,     450.7,       0.0);         ( 327536.1,
3783029.3,     251.3,     450.7,       0.0);
     ( 327513.5, 3783047.2,     250.6,     450.7,       0.0);         ( 327535.3,
3783052.7,     250.2,     450.7,       0.0);
     ( 327484.0, 3783053.4,     250.5,     450.7,       0.0);         ( 327459.1,
3783067.5,     248.6,     450.7,       0.0);
     ( 327456.7, 3783032.4,     249.2,     450.7,       0.0);         ( 327946.3,
3783145.3,     233.7,     450.7,       0.0);
     ( 327945.6, 3783028.5,     241.6,     450.7,       0.0);         ( 327942.5,
3782956.9,     251.2,     450.7,       0.0);
     ( 327874.0, 3782935.9,     243.8,     450.7,       0.0);         ( 327965.8,
3782871.3,     256.0,     450.7,       0.0);
     ( 328050.6, 3782898.5,     253.2,     450.7,       0.0);         ( 328061.5,
3782943.7,     248.4,     450.7,       0.0);
     ( 328030.4, 3783127.4,     250.5,     450.7,       0.0);         ( 327980.6,
3782831.6,     258.3,     450.7,       0.0);
     ( 327955.7, 3782771.7,     261.6,     450.7,       0.0);         ( 328042.9,
3782835.5,     256.9,     450.7,       0.0);
     ( 328186.9, 3783045.7,     261.3,     450.7,       0.0);         ( 328157.3,
3783081.5,     259.4,     450.7,       0.0);
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los
Robles Medical Center\Los Robl ***        03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        10:13:02

                                          PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                            *** 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,
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los
Robles Medical Center\Los Robl ***        03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        10:13:02

                                  PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

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

   Surface file:   ..\Thousand-Oaks-2015-2019\2015-2019 Thousand Oaks.SFC
                 Met Version:  21112
   Profile file:   ..\Thousand-Oaks-2015-2019\2015-2019 Thousand Oaks.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:    23130                 Upper air station no.:    93214
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2015                                  Year:   2015

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 15 01 01   1 01   -2.1  0.047 -9.000 -9.000 -999.   24.      4.3  0.09   1.07
1.00    1.10  112.   10.0  275.4   10.0
 15 01 01   1 02   -3.5  0.060 -9.000 -9.000 -999.   36.      5.5  0.10   1.07
1.00    1.40  129.   10.0  274.6   10.0
 15 01 01   1 03   -2.6  0.052 -9.000 -9.000 -999.   28.      4.7  0.10   1.07
1.00    1.20  126.   10.0  274.2   10.0
 15 01 01   1 04   -4.0  0.065 -9.000 -9.000 -999.   39.      5.9  0.10   1.07
1.00    1.50  126.   10.0  273.6   10.0
 15 01 01   1 05   -4.0  0.065 -9.000 -9.000 -999.   39.      5.9  0.10   1.07
1.00    1.50  127.   10.0  273.8   10.0
 15 01 01   1 06   -5.8  0.077 -9.000 -9.000 -999.   52.      7.1  0.10   1.07
1.00    1.80  127.   10.0  274.0   10.0
```

```
 15 01 01   1 07   -9.5  0.099 -9.000 -9.000 -999.   75.      9.0  0.10   1.07
1.00    2.30  146.   10.0  273.5   10.0
 15 01 01   1 08   -6.6  0.086 -9.000 -9.000 -999.   61.      8.6  0.10   1.07
0.56    2.00  127.   10.0  275.0   10.0
 15 01 01   1 09   21.1  0.166  0.311  0.005   50.  163.    -19.2  0.10   1.07
0.31    1.60  141.   10.0  278.9   10.0
 15 01 01   1 10   72.6  0.189  0.557  0.005   84.  197.     -8.2  0.08   1.07
0.23    1.70  163.   10.0  281.6   10.0
 15 01 01   1 11  109.4  0.153  1.392  0.010  873.  143.     -2.9  0.08   1.07
0.20    1.20   66.   10.0  284.5   10.0
 15 01 01   1 12  128.1  0.158  1.484  0.009  902.  150.     -2.7  0.06   1.07
0.19    1.30  273.   10.0  286.2   10.0
 15 01 01   1 13  127.8  0.212  1.499  0.008  931.  234.     -6.6  0.06   1.07
0.19    2.00  297.   10.0  286.2   10.0
 15 01 01   1 14  109.1  0.201  1.434  0.007  955.  217.     -6.6  0.06   1.07
0.20    1.90  281.   10.0  286.9   10.0
 15 01 01   1 15   72.3  0.273  1.257  0.006  970.  343.    -24.9  0.06   1.07
0.23    3.00  281.   10.0  286.5   10.0
 15 01 01   1 16   20.8  0.284  0.832  0.006  977.  363.    -96.8  0.06   1.07
0.32    3.40  280.   10.0  285.8   10.0
 15 01 01   1 17  -16.7  0.176 -9.000 -9.000 -999.  183.     28.7  0.06   1.07
0.57    3.00  282.   10.0  284.4   10.0
 15 01 01   1 18   -2.0  0.045 -9.000 -9.000 -999.   50.      3.8  0.05   1.07
1.00    1.20  309.   10.0  282.5   10.0
 15 01 01   1 19   -2.1  0.047 -9.000 -9.000 -999.   25.      4.3  0.09   1.07
1.00    1.10  100.   10.0  280.9   10.0
 15 01 01   1 20   -2.1  0.047 -9.000 -9.000 -999.   25.      4.4  0.10   1.07
1.00    1.10  123.   10.0  279.2   10.0
 15 01 01   1 21   -4.0  0.065 -9.000 -9.000 -999.   39.      5.9  0.10   1.07
1.00    1.50  134.   10.0  278.4   10.0
 15 01 01   1 22   -1.8  0.043 -9.000 -9.000 -999.   21.      4.0  0.10   1.07
1.00    1.00  127.   10.0  277.6   10.0
 15 01 01   1 23   -2.6  0.052 -9.000 -9.000 -999.   28.      4.7  0.10   1.07
1.00    1.20  128.   10.0  276.5   10.0
 15 01 01   1 24   -2.6  0.052 -9.000 -9.000 -999.   28.      4.7  0.10   1.07
1.00    1.20  127.   10.0  275.8   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 15 01 01 01   10.0 1  112.    1.10   275.5   19.8  -99.00    0.36

 F indicates top of profile (=1) or below (=0)
```

*** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|---|---|---|---|---|---|
| 327629.54 | 3783002.85 | 4.82622 | 327629.54 | 3783037.88 | 15.78234 |
| 327602.29 | 3783040.99 | 16.40545 | 327580.50 | 3783039.43 | 13.67184 |
| 327571.93 | 3783008.30 | 5.00548 | 327552.47 | 3782961.59 | 2.56637 |
| 327564.93 | 3782948.36 | 2.75351 | 327585.17 | 3782925.01 | 3.53644 |
| 327600.73 | 3782900.10 | 3.63926 | 327614.75 | 3782914.89 | 3.77425 |
| 327638.10 | 3782948.36 | 3.78529 | 327637.32 | 3782981.05 | 2.28982 |
| 327596.84 | 3782991.95 | 3.05213 | 327599.96 | 3782965.49 | 2.51452 |
| 327518.22 | 3782951.47 | 2.39602 | 327529.12 | 3782931.24 | 2.63387 |
| 327541.58 | 3782910.22 | 3.05234 | 327557.92 | 3782894.65 | 3.40160 |
| 327568.04 | 3782879.08 | 3.43692 | 327536.13 | 3783029.31 | 7.45128 |
| 327513.55 | 3783047.22 | 9.47140 | 327535.35 | 3783052.67 | 12.41551 |
| 327483.98 | 3783053.44 | 8.72319 | 327459.07 | 3783067.46 | 8.96442 |
| 327456.73 | 3783032.43 | 5.16550 | 327946.34 | 3783145.30 | 1.38220 |
| 327945.56 | 3783028.54 | 3.77358 | 327942.45 | 3782956.92 | 10.20701 |
| 327873.95 | 3782935.91 | 13.38272 | 327965.80 | 3782871.30 | 9.16541 |
| 328050.65 | 3782898.54 | 7.32235 | 328061.54 | 3782943.69 | 5.95917 |
| 328030.41 | 3783127.39 | 1.61108 | 327980.59 | 3782831.60 | 7.65725 |
| 327955.68 | 3782771.67 | 6.84527 | 328042.86 | | |

3782835.49       6.69658
         328186.87    3783045.66       1.45766                          328157.29
3783081.47       1.30925
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\Los Robl ***       03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***       10:13:02

                                          PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) |
|---|---|---|---|---|---|---|---|
| 327629.54 | 3783002.85 | 61.86529 | (18042921) | 327629.54 | 3783037.88 | 148.75687 | (16022021) |
| 327602.29 | 3783040.99 | 148.70627 | (15010103) | 327580.50 | 3783039.43 | 157.09411 | (17122221) |
| 327571.93 | 3783008.30 | 117.09319 | (15082404) | 327552.47 | 3782961.59 | 127.64627 | (16021619) |
| 327564.93 | 3782948.36 | 134.79002 | (16041620) | 327585.17 | 3782925.01 | 128.55738 | (17010822) |
| 327600.73 | 3782900.10 | 149.70687 | (16110419) | 327614.75 | 3782914.89 | 132.24341 | (16110419) |
| 327638.10 | 3782948.36 | 79.95794 | (18103023) | 327637.32 | 3782981.05 | 61.63259 | (17112721) |
| 327596.84 | 3782991.95 | 74.90713 | (15090719) | 327599.96 | 3782965.49 | 91.41579 | (16021619) |
| 327518.22 | 3782951.47 | 141.41481 | (16021619) | 327529.12 | 3782931.24 | 152.13805 | (16041620) |
| 327541.58 | 3782910.22 | 136.62847 | (18060822) | 327557.92 | 3782894.65 | 150.57776 | (17010822) |
| 327568.04 | 3782879.08 | 154.53787 | (17092520) | 327536.13 | 3783029.31 | 152.29151 | (18121020) |
| 327513.55 | 3783047.22 | 177.90154 | (17092906) | 327535.35 | 3783052.67 | 168.04930 | (18030803) |
| 327483.98 | 3783053.44 | 185.16774 | (17092906) | 327459.07 | 3783067.46 | 183.44962 | (15090501) |
| 327456.73 | 3783032.43 | 162.00532 | (18091321) | 327946.34 | | | |

```
3783145.30      182.74465  (19011719)
        327945.56   3783028.54      207.46050  (19022321)                327942.45
3782956.92      288.18968  (15082121)
        327873.95   3782935.91      304.48998  (15060801)                327965.80
3782871.30      303.15825  (17070323)
        328050.65   3782898.54      272.41159  (17080503)                328061.54
3782943.69      239.77594  (15082121)
        328030.41   3783127.39      211.31931  (19101619)                327980.59
3782831.60      283.65172  (15071501)
        327955.68   3782771.67      268.84630  (16080523)                328042.86
3782835.49      265.46347  (17070323)
        328186.87   3783045.66      188.39350  (19082904)                328157.29
3783081.47      192.12862  (18060121)
```

```
↑ *** AERMOD - VERSION 21112  ***   *** C:\Users\apoll\Desktop\HARP2\HARP\Los
Robles Medical Center\Los Robl ***        03/09/23
 *** AERMET - VERSION  21112 ***   ***
                       ***        10:13:02

                                   PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

                                        *** THE SUMMARY OF MAXIMUM PERIOD ( 43824
HRS) RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
               **



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

ALL       1ST HIGHEST VALUE IS      16.40545 AT (  327602.29,  3783040.99,   249.89,
  450.72,    0.00)  DC
          2ND HIGHEST VALUE IS      15.78234 AT (  327629.54,  3783037.88,   249.19,
  450.72,    0.00)  DC
          3RD HIGHEST VALUE IS      13.67184 AT (  327580.50,  3783039.43,   250.26,
  450.72,    0.00)  DC
          4TH HIGHEST VALUE IS      13.38272 AT (  327873.95,  3782935.91,   243.76,
  450.72,    0.00)  DC
          5TH HIGHEST VALUE IS      12.41551 AT (  327535.35,  3783052.67,   250.21,
  450.72,    0.00)  DC
          6TH HIGHEST VALUE IS      10.20701 AT (  327942.45,  3782956.92,   251.24,
  450.72,    0.00)  DC
          7TH HIGHEST VALUE IS       9.47140 AT (  327513.55,  3783047.22,   250.56,
  450.72,    0.00)  DC
          8TH HIGHEST VALUE IS       9.16541 AT (  327965.80,  3782871.30,   256.02,
```

450.72,    0.00)  DC
        9TH HIGHEST VALUE IS       8.96442 AT (  327459.07,  3783067.46,   248.58,
450.72,    0.00)  DC
       10TH HIGHEST VALUE IS       8.72319 AT (  327483.98,  3783053.44,   250.46,
450.72,    0.00)  DC

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



*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

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

** CONC OF PM_10    IN MICROGRAMS/M**3 **

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

ALL      HIGH   1ST HIGH VALUE IS     304.48998  ON 15060801: AT (  327873.95, 3782935.91,   243.76,   450.72,    0.00)  DC

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



*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  SigA Data

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

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

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of          867 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of          460 Calm Hours Identified

 A Total of          407 Missing Hours Identified (  0.93 Percent)


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


    ********   WARNING MESSAGES   ********
 SO W320      38        PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
 MX W403     100       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

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

HARP2 - HRACalc (dated 22118) 4/13/2023 10:24:35 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
**********************************
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

**********************************
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

**********************************
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments.  The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

**********************************
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES OPERATION\hra\ResidentialCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES OPERATION\hra\ResidentialCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES OPERATION\hra\ResidentialNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES OPERATION\hra\ResidentialNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to:
C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES OPERATION\hra\ResidentialNCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\HARP\Los Robles Medical Center\LOS ROBLES OPERATION\hra\ResidentialNCAcuteRiskSumByRec.csv
HRA ran successfully

| REC | GRP | NETID | X | Y | RISK_SUM | SCENARIO | INH_RISK | SOIL_RISK | DERMAL_R | MMILK_RIS | WATER_RIS | FISH_RISK | CROP_RISK | BEEF_RISK | DAIRY_RIS | PIG_RISK | CHICKEN_R | EGG_RISK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ALL | | 327629.5 | 3783003 | 6.02E-08 | 30YrCancer | 6.02E-08 | 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 |
| 2 | ALL | | 327629.5 | 3783038 | 1.97E-07 | 30YrCancer | 1.97E-07 | 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 |
| 3 | ALL | | 327602.3 | 3783041 | 2.04E-07 | 30YrCancer | 2.04E-07 | 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 |
| 4 | ALL | | 327580.5 | 3783039 | 1.70E-07 | 30YrCancer | 1.70E-07 | 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 |
| 5 | ALL | | 327571.9 | 3783008 | 6.24E-08 | 30YrCancer | 6.24E-08 | 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 |
| 6 | ALL | | 327552.5 | 3782962 | 3.20E-08 | 30YrCancer | 3.20E-08 | 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 |
| 7 | ALL | | 327564.9 | 3782948 | 3.43E-08 | 30YrCancer | 3.43E-08 | 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 |
| 8 | ALL | | 327585.2 | 3782925 | 4.41E-08 | 30YrCancer | 4.41E-08 | 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 |
| 9 | ALL | | 327600.7 | 3782900 | 4.54E-08 | 30YrCancer | 4.54E-08 | 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 |
| 10 | ALL | | 327614.8 | 3782915 | 4.70E-08 | 30YrCancer | 4.70E-08 | 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 |
| 11 | ALL | | 327638.1 | 3782948 | 4.72E-08 | 30YrCancer | 4.72E-08 | 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 |
| 12 | ALL | | 327637.3 | 3782981 | 2.85E-08 | 30YrCancer | 2.85E-08 | 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 |
| 13 | ALL | | 327596.8 | 3782992 | 3.80E-08 | 30YrCancer | 3.80E-08 | 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 |
| 14 | ALL | | 327600 | 3782965 | 3.13E-08 | 30YrCancer | 3.13E-08 | 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 |
| 15 | ALL | | 327518.2 | 3782951 | 2.99E-08 | 30YrCancer | 2.99E-08 | 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 |
| 16 | ALL | | 327529.1 | 3782931 | 3.28E-08 | 30YrCancer | 3.28E-08 | 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 |
| 17 | ALL | | 327541.6 | 3782910 | 3.80E-08 | 30YrCancer | 3.80E-08 | 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 |
| 18 | ALL | | 327557.9 | 3782895 | 4.24E-08 | 30YrCancer | 4.24E-08 | 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 |
| 19 | ALL | | 327568 | 3782879 | 4.28E-08 | 30YrCancer | 4.28E-08 | 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 |
| 20 | ALL | | 327536.1 | 3783029 | 9.29E-08 | 30YrCancer | 9.29E-08 | 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 |
| 21 | ALL | | 327513.6 | 3783047 | 1.18E-07 | 30YrCancer | 1.18E-07 | 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 |
| 22 | ALL | | 327535.4 | 3783053 | 1.55E-07 | 30YrCancer | 1.55E-07 | 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 |
| 23 | ALL | | 327484 | 3783053 | 1.09E-07 | 30YrCancer | 1.09E-07 | 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 |
| 24 | ALL | | 327459.1 | 3783067 | 1.12E-07 | 30YrCancer | 1.12E-07 | 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 |
| 25 | ALL | | 327456.7 | 3783032 | 6.44E-08 | 30YrCancer | 6.44E-08 | 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 |
| 26 | ALL | | 327946.3 | 3783145 | 1.72E-08 | 30YrCancer | 1.72E-08 | 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 |
| 27 | ALL | | 327945.6 | 3783029 | 4.70E-08 | 30YrCancer | 4.70E-08 | 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 |
| 28 | ALL | | 327942.5 | 3782957 | 1.27E-07 | 30YrCancer | 1.27E-07 | 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 |
| 29 | ALL | | 327874 | 3782936 | 1.67E-07 | 30YrCancer | 1.67E-07 | 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 |
| 30 | ALL | | 327965.8 | 3782871 | 1.14E-07 | 30YrCancer | 1.14E-07 | 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 |
| 31 | ALL | | 328050.7 | 3782899 | 9.13E-08 | 30YrCancer | 9.13E-08 | 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 |
| 32 | ALL | | 328061.5 | 3782944 | 7.43E-08 | 30YrCancer | 7.43E-08 | 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 |
| 33 | ALL | | 328030.4 | 3783127 | 2.01E-08 | 30YrCancer | 2.01E-08 | 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 |
| 34 | ALL | | 327980.6 | 3782832 | 9.54E-08 | 30YrCancer | 9.54E-08 | 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 |
| 35 | ALL | | 327955.7 | 3782772 | 8.53E-08 | 30YrCancer | 8.53E-08 | 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 |
| 36 | ALL | | 328042.9 | 3782835 | 8.35E-08 | 30YrCancer | 8.35E-08 | 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 |
| 37 | ALL | | 328186.9 | 3783046 | 1.82E-08 | 30YrCancer | 1.82E-08 | 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 |
| 38 | ALL | | 328157.3 | 3783081 | 1.63E-08 | 30YrCancer | 1.63E-08 | 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 |

| REC | GRP | NETID | X | Y | SCENARIO | CV | CNS | IMMUN | KIDNEY | GILV | REPRO/DE | RESP | SKIN | EYE | BONE/TEET | ENDO | BLOOD | ODOR | GENERAL | MAXHI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ALL | | 327629.5 | 3783003 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.36E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.36E-05 |
| 2 | ALL | | 327629.5 | 3783038 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.45E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.45E-05 |
| 3 | ALL | | 327602.3 | 3783041 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.62E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.62E-05 |
| 4 | ALL | | 327580.5 | 3783039 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.85E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.85E-05 |
| 5 | ALL | | 327571.9 | 3783008 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E-05 |
| 6 | ALL | | 327552.5 | 3782962 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.23E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.23E-06 |
| 7 | ALL | | 327564.9 | 3782948 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.76E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.76E-06 |
| 8 | ALL | | 327585.2 | 3782925 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.97E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.97E-06 |
| 9 | ALL | | 327600.7 | 3782900 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.03E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.03E-05 |
| 10 | ALL | | 327614.8 | 3782915 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.06E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.06E-05 |
| 11 | ALL | | 327638.1 | 3782948 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.07E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.07E-05 |
| 12 | ALL | | 327637.3 | 3782981 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.46E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.46E-06 |
| 13 | ALL | | 327596.8 | 3782992 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.60E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.60E-06 |
| 14 | ALL | | 327600 | 3782965 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.09E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.09E-06 |
| 15 | ALL | | 327518.2 | 3782951 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.75E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.75E-06 |
| 16 | ALL | | 327529.1 | 3782931 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.43E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.43E-06 |
| 17 | ALL | | 327541.6 | 3782910 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.60E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.60E-06 |
| 18 | ALL | | 327557.9 | 3782895 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.59E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.59E-06 |
| 19 | ALL | | 327568 | 3782879 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.69E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.69E-06 |
| 20 | ALL | | 327536.1 | 3783029 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.10E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.10E-05 |
| 21 | ALL | | 327513.6 | 3783047 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.67E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.67E-05 |
| 22 | ALL | | 327535.4 | 3783053 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.50E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.50E-05 |
| 23 | ALL | | 327484 | 3783053 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.46E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.46E-05 |
| 24 | ALL | | 327459.1 | 3783067 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 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 | 2.53E-05 |
| 25 | ALL | | 327456.7 | 3783032 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.46E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.46E-05 |
| 26 | ALL | | 327946.3 | 3783145 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.90E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.90E-06 |
| 27 | ALL | | 327945.6 | 3783029 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.06E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.06E-05 |
| 28 | ALL | | 327942.5 | 3782957 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.88E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.88E-05 |
| 29 | ALL | | 327874 | 3782936 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.77E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.77E-05 |
| 30 | ALL | | 327965.8 | 3782871 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.58E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.58E-05 |
| 31 | ALL | | 328050.7 | 3782899 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.06E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.06E-05 |
| 32 | ALL | | 328061.5 | 3782944 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.68E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.68E-05 |
| 33 | ALL | | 328030.4 | 3783127 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.54E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.54E-06 |
| 34 | ALL | | 327980.6 | 3782832 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.16E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.16E-05 |
| 35 | ALL | | 327955.7 | 3782772 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.93E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.93E-05 |
| 36 | ALL | | 328042.9 | 3782835 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.89E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.89E-05 |
| 37 | ALL | | 328186.9 | 3783046 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.11E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.11E-06 |
| 38 | ALL | | 328157.3 | 3783081 | NonCancer | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.69E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.69E-06 |

# Appendix C

## LRCCC Construction Equipment Assumptions

DPR CONSTRUCTION

# Memorandum

September 18, 2023

To: Zach Wideman, HCA

From: Randy Sovereign, DPR

Subject: Los Robles Comprehensive Cancer Center (CCC) – Construction Equipment Assumptions

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The purpose of this memo is to provided construction assumptions for quantity and usage of construction equipment for the proposed Los Robles Comprehensive Cancer Center. I should note that the site is small and cannot accommodate multiple construction equipment at one time. Construction activity would be planned for efficiencies, which is reflected in the assumptions noted below.

| Construction Phase | Equipment | | | |
|---|---|---|---|---|
| | Equipment Type | Quantity | Usage Hours | Days |
| Demolition<br>*29 days of Demo* | Concrete/Industrial Saws | 0 | 0 | – |
| | Excavators<br>*Excavators will remove Slab and foundations first.* | 1 | 8 | 15 |
| | Rubber Tired Dozers/Loader<br>*Dozer and Loader will follow and would not be operating at the same time. (7 days for dozer and 7 days for loader).* | 2 | 8 | 14 |
| Grading<br>90 Days | Excavators | 1 | 8 | 30 |
| | Graders<br>*The site is too small for graders. The work will be done with excavators, dozers, tractors, loaders, and backhoes. Use assumptions are noted herein.* | 0 | 0 | – |
| | Rubber Tired Dozers | 1 | 8 | 10 |
| | Tractors/Loaders/Backhoes | 3 | 8 | 50 |

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| Construction Phase | Equipment | | | |
|---|---|---|---|---|
| | **Equipment Type** | **Quantity** | **Usage Hours** | **Days** |
| Building Construction<br>428 days | Cranes<br>*Limited use of cranes is assumed. Possible use for smaller crane for roofing and possibly for underground storage tanks.* | 1 | 7 | 20 |
| | Forklifts<br>*Limited use of forklifts.* | 2 | 8 | 14 |
| | Generator Sets<br>*We will be using existing power.* | 0 | 0 | – |
| | Tractors/Loaders/Backhoes<br>*Building construction phase would not be using tractors or loaders.* | 1 | 7 | 90 |
| | Welders<br>*Assume there will be a top and bottom welder.* | 2 | 8 | 30 |
| Paving<br>*113 days w/in Building Construction* | Cement and Mortar Mixers<br>*We are not mixing anything on-site – concrete truck delivery/ready mix* | 0 | 0 | – |
| | Concrete | 1 | 4 | 36<br>*3 days a week for 3 months* |
| | Paving Equipment (Asphalt)<br>*This assumes 2 lifts in parking area.* | 1 | 6 | 30 |
| | Rollers<br>*This assumes 2 lifts in parking area.* | 1 | 6 | 30 |
| | Tractors/Loaders/Backhoes | 1 | 8 | 113 |
| Architectural Coating<br>*120 days* | Air Compressors<br>*There are airless compressor machines now. Paint used is all low VOC per HCA specifications. There is also very little painting for the building.* | 0 | 0 | -- |

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