

AIR QUALITY TECHNICAL REPORT
for the proposed
PALM & HOLLISTER DEVELOPMENT
OTAY MESA-NESTOR (CITY OF SAN DIEGO)

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TABLE OF CONTENTS

1.0 INTRODUCTION 2

1.1 Project Description2

1.2 Project Location3

1.3 Purpose of this Analysis3

2.0 EXISTING ENVIRONMENTAL SETTING..... 3

2.1 Existing Setting.....3

2.2 Climate and Meteorology3

2.3 Pollutants of Concern and Their Effects.....4

2.3.1 Criteria Air Pollutants4

2.3.2 Non-Criteria Air Pollutants5

2.3.2.1 Toxic Air Contaminants5

2.3.2.2 Diesel Particulate Matter5

2.3.2.3 Odorous Compounds.....6

3.0 REGULATORY SETTING..... 6

3.1 Federal Regulations6

3.1.1 Criteria Air Pollutants6

3.1.2 Hazardous Air Pollutants7

3.2 State Regulations7

3.2.1 Criteria Air Pollutants7

3.2.2 Toxic Air Contaminants10

3.3 Local Regulations12

3.3.1 San Diego Air Pollution Control District.....12

3.3.2 San Diego Association of Governments.....16

3.3.3 City of San Diego16

3.4 Regional and Local Air Quality Conditions17

3.4.1 San Diego Air Basin Attainment Designation17

3.4.2 Local Ambient Air Quality18

3.5 Air Quality Analysis Significance Criteria20

3.5.1 Thresholds of Significance20

3.5.1.1 City of San Diego Thresholds20

4.0 AIR QUALITY ANALYSIS METHODOLOGY 22

4.1 Construction Emissions23

4.2 Operational Emissions.....24

5.0 PROJECT AIR QUALITY IMPACT ANALYSIS..... 25

5.1 Conformance to the Regional Air Quality Strategy25

5.2 Conformance to Federal and State Ambient Air Quality Standards26

5.2.1 Construction Emissions26

5.2.2 Operational Emissions.....27

5.3 Cumulative Impacts.....29

5.4 Impacts to Sensitive Receptors30

5.4.1 Diesel Particulate Matter31

5.4.2 CO Hotspots 33

5.5 Objectionable Odors 34

5.6 Air Contaminant Emissions 34

6.0 CONCLUSIONS 35

7.0 REFERENCES 37

TABLES

Table 1 National and State Ambient Air Quality Standards.....8

Table 2 Summary of San Diego Air Basin (SDAB) Federal and State
Attainment Status 18

Table 3 Ambient Air Background Pollutant
Concentrations/Exceedances/Standards..... 19

Table 4 Screening Level Thresholds for Air Quality Impact Analysis
Construction and Operations 21

Table 5 Construction Schedule – Palm & Hollister Development 23

Table 6 Maximum Daily Construction Emissions – Full Buildout Scenario 27

Table 7 Maximum Annual Construction Emissions – Full Buildout Scenario
..... 27

Table 8 Maximum Daily Operational Emissions – Full Buildout Scenario.. 28

Table 9 Maximum Annual Operational Emissions – Full Buildout Scenario28

Table 10 Maximum Daily Operational Emissions – Partial Buildout Scenario
..... 29

Table 11 Maximum Annual Operational Emissions – Partial Buildout Scenario
..... 29

Table 12 AERSCREEN Modeling Parameters..... 31

Table 13 Screening HRA Risk Impacts from Construction DPM 32

Table 14 Screening HRA Risk Impacts from Construction DPM with
Mitigation 1 33

APPENDICES

Appendix A: CalEEMod Annual and Daily Output Files

Appendix B: Site Plan and Vesting Tentative Map

Appendix C: Screening HRA Calculations and AERSCREEN Output

GLOSSARY OF TERMS AND ACRONYMS

Acronym	Description
AB	Assembly Bill
ac	Acre
ACM	Asbestos Containing Material
ADT	Average Daily Trips
AQIA	Air Quality Impact Analysis
ATCM	Airborne Toxic Control Measure
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
DU	Dwelling Unit
ESA	Environmental Site Assessment
°F	Degrees Fahrenheit
g/L	Grams per Liter
HHI	Health Hazard Index
HRA	Health Risk Assessment
H ₂ S	Hydrogen Sulfide
lb/day	Pounds per Day
LOS	Level of Service
µg/m ³	Micrograms per Cubic Meter
mg/m ²	Milligrams per Square Meter
MSL	Mean Sea Level
MTS	Metropolitan Transit System
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
O ₃	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OMNCP	Otay Mesa-Nestor Community Plan
Pb	Lead
PM _{2.5}	Particulate Matter 2.5 Micrometers or Less in Aerodynamic Diameter
PM ₁₀	Particulate Matter 10 Micrometers or Less in Aerodynamic Diameter
ppm	Parts per million
RAQS	Regional Air Quality Strategy
RHNA	Regional Housing Needs Assessment
ROG	Reactive Organic Gases
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCS	Sustainable Communities Strategy

GLOSSARY OF TERMS AND ACRONYMS

Acronym	Description
SD	San Diego
SD&AE	San Diego & Arizona Eastern
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDMTD	San Diego Metropolitan Transit Development
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SO _x	Oxides of Sulfur
TAC	Toxic Air Contaminant
TOD	Transit Oriented Development
Tons/year	Tons Per Year
USEPA	US Environmental Protection Agency
VOC	Volatile Organic Compounds

EXECUTIVE SUMMARY

This report is an analysis of the potential air quality impacts associated with the proposed Palm & Hollister multi-family residential development (Project). The Project would require an amendment to the Otay Mesa-Nestor Community Plan to change the existing land use from Open Space to Medium-High Density and a rezone to change the existing zone from AR-1-2, RM-1-1, and RS-1-5 to RM-2-6. Additionally, the Project proposes a Vesting Tentative Map, Planned Development Permit to allow deviations from the RM-2-6 zone, and Site Development Permit. The analysis includes an assessment of potential impacts associated with air emissions from the construction and operation activities that would be associated with two Project scenarios: 1) Partial density buildout of the development (33.45 dwelling units per acre) as proposed, and 2) Full density buildout of the development (34.85 dwelling units per acre) due to the zoning change.

The Project proposes development of multi-family housing proximate to the Palm Avenue Trolley Station. A total of 198 residential units, including eight affordable housing units, would be provided in 13 buildings. The main resident amenities would be provided in the western and central portions of the Project site. In addition to the residential buildings and as a separate stand-alone building, residential amenities in the western portion of the Project site would feature a pool, spa, fire pit, patio/barbecue areas, fitness center, co-working spaces, and the leasing office. An additional resident amenity area would be provided in the central portion of the Project site, incorporated as an open courtyard in the center of the largest building. There is currently a vacant residential structure and outbuildings on the parcel, so standard demolition activities would be conservative. Construction is assumed to begin in 2023, and the first year of operation is assumed to be 2025.

The Project zoning change to RM-2-6 zone allows up to 34.85 dwelling units per acre (du/ac). For the 5.92-acre site, this would be up to 206 dwelling units. Thus, this analysis also addressed the potential buildout of the site to the extent allowed by the proposed Project land use and zoning change. Air quality modeling was performed in general accordance with the methodologies outlined in the San Diego County Air Pollution Control District (SDAPCD) 2016 Regional Air Quality Strategy (RAQS) to identify both construction and operational emissions associated with the proposed Project. All emissions were calculated using the California Emissions Estimator Model (CalEEMod) software version 2020.4.0 which incorporates current air emission data, planning methods and protocol approved by the State of California Air Resources Board (CARB).¹

For both the partial density as-proposed Project scenario and the full density buildout Project scenario, construction of the proposed Project would not exceed the SDAPCD regional construction emission thresholds for daily emissions. Likewise, for both scenarios, operation of the proposed Project would generate emissions less than the SDAPCD thresholds of significance and as such, would also not cause impacts to nearby sensitive receptors. The proposed Project would also not conflict with implementation of

¹ A newer version of CalEEMod, version 2022.1, is currently in "soft release." The City has confirmed that the 2020.4.0 version should be used for City CEQA analyses until the new version is fully released. However, the use of the updated version of CalEEMod is not anticipated to change conclusions in this report.

the applicable air quality plans and would not expose sensitive receptors to carbon monoxide hotspots, or substantial odors. Therefore, the proposed Project would have a less than significant impact on air quality.

1.0 INTRODUCTION

1.1 Project Description

The Palm & Hollister Project is located on a 5.92-acre site in the Otay Mesa-Nestor Community Plan area, situated north of the Palm Avenue Trolley Station, south of the Otay Valley Regional Park, and to the east of Hollister Avenue. The Project site has been previously graded and is undeveloped, with the exception of a vacant residential structure and out-buildings. Located within a Transit Priority Area, the Palm & Hollister Project proposes development of multi-family housing proximate to the Palm Avenue Trolley Station. A total of 198 residential units, including eight affordable housing units, would be provided in 13 buildings. The unit mix would include one bedroom/one bath, two bedroom/two bath, and three bedroom/two bath units. Buildings would be one level, two levels, and three levels with tuck-under garages and one-level units over carports. The main resident amenities would be provided in the western and central portions of the Project site.

The outdoor recreation areas are proposed within the courtyards of Building 1 and Building 3, as well as to the north of Building 5. Amenities in the western portion of the Project site associated with Building 1 would feature a pool, spa, fire pit, patio/bar-b-que areas, fitness center, co-working spaces, and the leasing office. An additional resident amenity area would be provided in the central portion of the Project site in the courtyard of Building 3, incorporated as an open courtyard in the center of the largest building. Situated to take advantage of views into the Otay Valley Regional Park located north of the Project site, this resident amenity would feature a barbecue pavilion, fire table, turf area incorporating a nature playground, game courts, and sofa seating areas. The recreational area located north of Building 5 would feature a turf play area and picnic tables with a patio/bar-b-que area. A pedestrian landscaped walkway along the top of the northern slope would provide views of the River Valley and a continuous connection from the residential buildings to the Project amenity areas.

A total of 267 parking spaces would be provided as individual tuck-under garages, carports, and surface spaces. Site access would be provided via two site driveways to the San Diego Metropolitan Transit Development (SDMTD) property located to the southwest of the site. The Project also includes improvements on the SDMTD property within an access easement, including a path for pedestrian access to the Palm Avenue Trolley Station and Palm Avenue and curb reconstruction at Palm Avenue. The Site Plan and Vesting Tentative Map are provided in Appendix B.

There is currently a vacant residential structure and outbuildings on the parcel that would be demolished prior to grading. Approximately 5.5 acres of the 5.92-acre Project site would be graded. Grading would involve approximately 15,000 cubic yards of cut and approximately 38,500 cubic yards of fill, with approximately 23,500 cubic yards of import. In addition, remedial grading would involve 67,000 cubic yards of excavation to

depths of 17 feet. Construction is assumed to begin in 2023, and the first year of operation is assumed to be 2025.

The Project zoning change to RM-2-6 zone allows up to 34.85 dwelling units per acre (du/ac). For the 5.92-acre site, this would be up to 206 dwelling units. Thus, this analysis also addressed the potential buildout of the site to the extent allowed by the proposed Project land use and zoning change.

1.2 Project Location

The Project site is located north of the Palm Avenue Trolley Station, south of the Otay Valley Regional Park, and to the east of Hollister Avenue and San Diego & Arizona Eastern (SD&AE) Railroad line, within the Otay Mesa-Nestor Community Plan area in the City of San Diego (the "City"). Surrounding uses include the Otay Valley Regional Park to the north, a plant nursery to the north and east, a single-family home and a golf facility to the west, and a single-family housing community and a co-located school and church directly to the south.

1.3 Purpose of this Analysis

The Project would require an amendment to the Otay Mesa-Nestor Community Plan to change the existing land use from Open Space to Medium-High Density with 30 to 44 dwelling units per net residential acre; and a Rezone to change the existing zone from AR-1-2, RM-1-1, and RS-1-5 to RM-2-6. Additionally, the Project proposes a Vesting Tentative Map, Planned Development Permit to allow deviations from the RM-2-6 zone, and Site Development Permit.

This analysis includes an assessment of potential impacts associated with air emissions from the construction and operation activities that would be associated with the potential buildout of the Project site to the extent allowed by the proposed Project land use and zoning change. The analysis provided within this report addresses the City's *California Environmental Quality Act Significance Determination Thresholds* (City of San Diego 2022).

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The Project site is within the Otay Mesa-Nestor Community in the City of San Diego, which is located within the San Diego Air Basin (SDAB). The current Project site consists of undeveloped land, with the exception of a vacant residential structure and out buildings. Elevations within the area of the parcel range from approximately 22 feet above Mean Sea Level (MSL) at the northwest end to approximately 53 feet above MSL at the southeast end.

2.2 Climate and Meteorology

The Otay Mesa area, like the rest of San Diego County's coastal areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The

mean annual temperature for the Project area is 62 degrees Fahrenheit (°F). The average annual precipitation is 9.5 inches, falling primarily from November to April. Winter low temperatures in the Project area average about 48°F, and summer high temperatures average about 78°F (Weather Spark 2022).

The dominant meteorological feature affecting the region is the Pacific High-Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High-Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the SDAB. Beneath the inversion layer pollutants become “trapped” as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater the change between the morning and afternoon mixing depths, the greater the ability of the atmosphere to disperse pollutants.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high-pressure system develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds from the east over the mountains and out to sea.

Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions, or if the Santa Ana is weak, local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin (including Los Angeles) to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event does occur, the combination of transported contaminants from Los Angeles and Mexico, in addition to locally produced contaminants, produces the worst air quality measurements recorded in the basin.

2.3 Pollutants of Concern and Their Effects

2.3.1 Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards (criteria) for outdoor concentrations to protect public health. The seven criteria air pollutants defined by state and federal law as a risk to the health and welfare of the general public are as follows: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), respirable particulate matter (or particulate matter with an aerodynamic diameter of 10 microns or less, PM₁₀), fine particulate matter (or particulate matter with an aerodynamic diameter of 2.5 microns or less, PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb). Criteria pollutants can be emitted directly from sources (primary pollutants such as CO, SO₂, PM₁₀, PM_{2.5}, and lead) or they

may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants such as ozone, NO₂, PM₁₀ and PM_{2.5}). PM₁₀ and PM_{2.5} can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases (ROG) also known as volatile organic compounds (VOC), and nitrogen oxides (NO_x). The federal standards are known as the National Ambient Air Quality Standards (NAAQS).

CARB sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive than the NAAQS and also set limits for four additional contaminants: Visibility Reducing Particles, sulfates, hydrogen sulfide (H₂S) and vinyl chloride.

2.3.2 Non-Criteria Air Pollutants

2.3.2.1 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 non-cancer health effects. A toxic substance released into the air is considered a Toxic Air Contaminant (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 five 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.

2.3.2.2 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 one micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of PM_{2.5} (CARB 2021).

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 2021). On August 27, 1998, CARB and Office of Environmental Health Hazard Assessment (OEHHA) identified “particulate emissions from diesel-fueled engines” (i.e., DPM) as a TAC, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease (CalEPA 1998).

DPM is emitted from a broad range of diesel engines, including on-road diesel engines from trucks, buses, and cars; and off-road diesel engines from 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 non-cancer 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 2021). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

2.3.2.3 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 quite 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. In a phenomenon 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.

3.0 REGULATORY SETTING

3.1 Federal Regulations

3.1.1 Criteria Air Pollutants

The federal air quality standards were developed per the requirements of The Federal Clean Air Act (CAA), which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of NAAQS for major air pollutants.

The CAA established two types of air quality standards known as primary and secondary standards for the following criteria air pollutants: O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead. Primary standards set limits for the intention of protecting public health, which includes sensitive populations such as people with asthma, children and elderly. Secondary standards set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings. Areas that do not meet the NAAQS for a particular pollutant are considered to be “non-attainment areas” for that pollutant. States that have these non-attainment areas must prepare a State Implementation Plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

3.1.2 Hazardous Air Pollutants

The 1977 federal CAA amendments required the United States Environmental Protection Agency (USEPA) to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

3.2 State Regulations

3.2.1 Criteria Air Pollutants

The federal CAA 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 (CalEPA) in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the CAA and regulating emissions from motor vehicles and consumer products. CARB has established the CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. 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 O₃, CO, SO₂ (1-hour and 24-hour), NO₂, PM₁₀, PM_{2.5}, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. Table 1 on the next page shows the ambient air quality standards for NAAQS and CAAQS.

In addition to the above responsibilities, CARB assembles the State Implementation Plan (SIP) for areas that are out of attainment of the NAAQS; this planning document satisfies federal Clean Air Act requirement. Since the San Diego area is out of attainment of the federal ozone standard, the APCD must submit input to the SIP in the form of ozone-related plans and control measures for bringing the area into attainment. The SIP is typically updated on a triennial basis; however, the latest SIP update was submitted by the CARB to the USEPA in 2016; CARB is currently assembling strategy documentation for its 2022 SIP submittal. The latest APCD revisions to the SIP were submitted in 2020:

October 2020 "2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County" (SDAPCD 2020a).

**TABLE 1
NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon 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.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (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.
11. 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 1-hour national 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 one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' 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.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one 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.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

3.2.2 Toxic Air Contaminants

A TAC is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Federal laws use the hazardous air pollutants to refer to the same types of compounds that are referred to as TACs under state law. California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. Pursuant to AB 2588, existing facilities that emit air pollutants above specified levels are required to (1) prepare a TAC emission inventory plan and report; (2) prepare a risk assessment if TAC emissions were significant; (3) notify the public of significant risk levels; and (4) if health impacts were above specified levels, prepare and implement risk reduction measures.

Idling of Commercial Heavy-Duty Trucks (13 CCR 2485):

In July 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to control emissions from idling trucks. The ATCM prohibits idling for more than five minutes for all commercial trucks with a gross vehicle weight rating over 10,000 pounds. The ATCM contains an exception that allows trucks to idle while queuing or involved in operational activities.

In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.):

In July 2007, CARB adopted an ATCM for in-use off-road diesel vehicles. This regulation requires that specific fleet average requirements are met for NO_x emissions and for particulate matter emissions. Where average requirements cannot be met, best available control technology requirements apply. The regulation also includes several recordkeeping and reporting requirements.

In response to AB 8 2X, which was signed into law to provide economic relief and to preserve jobs in the construction industry, the regulations were revised in July 2009 (effective December 3, 2009) to allow a partial postponement of the compliance schedule in 2011 and 2012 for existing fleets. On December 17, 2010, CARB adopted additional revisions to further delay the deadlines reflecting reductions in diesel emissions due to the poor economy and overestimates of diesel emissions in California. The revisions delayed the first compliance date until no earlier than January 1, 2014, for large fleets, with final compliance by January 1, 2023. The compliance dates for medium fleets were delayed until an initial date of January 1, 2017, and final compliance date of January 1, 2023. The compliance dates for small fleets were delayed until an initial date of January 1, 2019, and final compliance date of January 1, 2028. Correspondingly, the fleet average targets were made more stringent in future compliance years. The revisions also accelerated the phaseout of older equipment with newer equipment added to existing large and medium fleets over time, requiring the addition of Tier 2 or higher engines starting on March 1, 2011, with some exceptions: Tier 2 or higher engines on January 1, 2013, without exception; and Tier 3 or higher engines on January 1, 2018 (January 1, 2023, for small fleets).

On October 28, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulation. The amendments included revisions to the applicability section and additions and revisions to the definition. The initial date for requiring the addition of Tier 2 or higher engines for large and medium fleets, with some exceptions, was revised to January 1, 2012. New provisions also allow for the removal of emission control devices for safety or visibility purposes. The regulation also was amended to combine the particulate matter and NO_x fleet average targets under one, instead of two, sections. The amended fleet average targets are based on the fleet's NO_x fleet average, and the previous section regarding particulate matter performance requirements was deleted completely. The best available control technology requirements, if a fleet cannot comply with the fleet average requirements, were restructured and clarified. Other amendments to the regulations included minor administrative changes to the regulatory text.

In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025):

On December 12, 2008, CARB adopted an ATCM to reduce NO_x and particulate matter emissions from most in-use on-road diesel trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. The original ATCM regulation required fleets of on-road trucks to limit their NO_x and particulate matter emissions through a combination of exhaust retrofit equipment and new vehicles. The regulation limited particulate matter emissions for most fleets by 2011, and limited NO_x emissions for most fleets by 2013. The regulation did not require any vehicle to be replaced before 2012 and never required all vehicles in a fleet be replaced.

In December 2009, the CARB Governing Board directed staff to evaluate amendments that would provide additional flexibility for fleets adversely affected by the struggling California economy. On December 17, 2010, CARB revised this ATCM to delay its implementation along with limited relaxation of its requirements. Starting on January 1, 2015, lighter trucks with a gross vehicle weight rating of 14,001 to 26,000 pounds with 20-year-old or older engines need to be replaced with newer trucks (2010 model year emissions equivalent as defined in the regulation). Trucks with a gross vehicle weight rating greater than 26,000 pounds with 1995 model year or older engines needed to be replaced as of January 1, 2015. Trucks with 1996 to 2006 model year engines must install a Level 3 (85% control) diesel particulate filter starting on January 1, 2012, to January 1, 2014, depending on the model year, and then must be replaced after eight years. Trucks with 2007 to 2009 model year engines have no requirements until 2023, at which time they must be replaced with 2010 model year emissions-equivalent engines, as defined in the regulation. Trucks with 2010 model year engines would meet the final compliance requirements. The ATCM provides a phase-in option under which a fleet operator would equip a percentage of trucks in the fleet with diesel particulate filters, starting at 30% as of January 1, 2012, with 100% by January 1, 2016. Under each option, delayed compliance is granted to fleet operators who have or will comply with requirements before the required deadlines.

On September 19, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulations, including revisions to the compliance schedule for vehicles with a gross vehicle weight rating of 26,000 pounds or less to clarify that all

vehicles must be equipped with 2010 model year emissions equivalent engines by 2023. The amendments included revised and additional credits for fleets that have downsized; implement early particulate matter retrofits; incorporate hybrid vehicles, alternative-fueled vehicles, and vehicles with heavy-duty pilot ignition engines; and implement early addition of newer vehicles. The amendments included provisions for additional flexibility, such as for low-usage construction trucks, and revisions to previous exemptions, delays, and extensions. Other amendments to the regulations included minor administrative changes to the regulatory text, such as recordkeeping and reporting requirements related to other revisions.

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.

3.3 Local Regulations

3.3.1 San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The Project site is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD.

In San Diego County (County), O₃ and particulate matter are the pollutants of main concern, since exceedances of state ambient air quality standards for those pollutants have been observed in most years. For this reason, the SDAB has been designated as a non-attainment area for the state PM₁₀, PM_{2.5}, and O₃ standards. The SDAB is also a federal O₃ attainment (maintenance) area for the 1997 8-hour O₃ standard, an O₃ non-attainment area for the 2008 8-hour O₃ standard, and a CO maintenance area (western and central part of the SDAB only, including the Project site area).

Federal Attainment Plans:

In October 2020, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 O₃ NAAQS), which indicated that local controls and state programs would allow the region to reach attainment of the federal 8-hour O₃ standard (2015 O₃ NAAQS) by August 2024 (SDAPCD 2020a). In this plan, SDAPCD relies on the Regional Air Quality Strategy (RAQS) to demonstrate how the region will comply with the federal O₃ standard. The RAQS details how the region will manage and reduce O₃ precursors (NO_x and VOC) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the

USEPA. Incentive programs for reduction of emissions from heavy duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

Currently, the County is designated as serious non-attainment for the 2008 NAAQS and moderate non-attainment for the 2015 NAAQS. As documented in the 2020 Plan (SDAPCD 2020a), the County needs to demonstrate how the region will further reduce air pollutant emissions in order to attain the current NAAQS for ozone by specified dates. Although total regionwide NO_x and VOC emissions (precursors for ozone formation) were reduced by over 60% and 50%, respectively, during the 2000-2018 time period, and large portions of the region meet both federal ozone standards, there are a few areas of the County that do not. These region-wide air quality improvements are the result of increasingly stringent air pollution regulations over the years that address issues such as the transition to low-emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego International Airport. The County will continue emission control measures, including ongoing implementation of existing regulations in O₃ precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring best available retrofit control technology for control of emissions. Nevertheless, in order to attain the federal ozone standards, the region still requires further reductions of air pollutants, especially from mobile sources as they contribute 65% of all ozone-forming pollutants emitted in San Diego County in 2020 (SDAPCD 2020a).

Air pollution is largely a cumulative impact. The non-attainment status of regional pollutants is a result of past and present development, and the SDAPCD 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 relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

The SDAB is designated under the California and National AAQS as non-attainment for O₃ and under the CAAQS as non-attainment for PM₁₀ and PM_{2.5} (SDAPCD 2021a). The poor air quality in the SDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOCs and NO_x for O₃) potentially contribute to poor air quality. In analyzing cumulative impacts from a project, the analysis must specifically evaluate the project's contribution to the cumulative increase in pollutants for which the SDAB is designated as non-attainment for the CAAQS and NAAQS. If the project does not exceed thresholds and is determined to have less-than-significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, exceed established thresholds. However, a project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

State Attainment Plans:

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The RAQS for the SDAB was initially adopted in 1991 and is updated on a triennial basis, most recently in 2020 (SDAPCD 2020a). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O₃. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans (SANDAG 2013, 2021a).

In December 2016, the SDAPCD adopted the revised RAQS for the County. The SDAPCD expects to continue reductions of ozone precursors through 2035 (SDAPCD 2016). Past reductions have been achieved through implementation of six VOC control measures and three NO_x control measures adopted in the SDAPCD's 2009 RAQS (SDAPCD 2009a). The SDAPCD is considering additional measures, including three VOC measures and four control measures to reduce 0.3 daily tons of VOC and 1.2 daily tons of NO_x, provided they are found to be feasible region-wide. In addition, SDAPCD has implemented nine incentive-based programs, has worked with SANDAG to implement regional transportation control measures, and has reaffirmed the state emission offset repeal.

In December 2005, the SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill (SB) 656 in the County (SB 656 required additional controls to reduce ambient concentrations of PM₁₀ and PM_{2.5}) (SDAPCD 2005). In the report, SDAPCD evaluated implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carry-out and track-out removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for ozone. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD's plans and control measures for attaining the ozone NAAQS. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the CalEPA and the CARB, and the emission and reduction strategies related to mobile sources are considered in the RAQS and SIP.

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, and mobile, area, and all other source emissions in order to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. The CARB's mobile source

emission projections and SANDAG's growth projections are based on population and vehicle trends, and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by these land use plans would be consistent with the RAQS. In the event that a project proposes development which is less dense than anticipated within the adopted land use plans, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the adopted land use plans and SANDAG's growth projections upon which the RAQS is based, the project would be in conflict with the RAQS and SIP and could have a potentially significant impact on air quality. This situation would warrant further analysis to determine if the proposed project and the surrounding projects would exceed the growth projections used in the RAQS for the specific subregional area.

SDAPCD Rules and Regulations:

As stated above, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD and would apply to any proposed projects on the Project site.

SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance: This rule prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976). Any criteria air pollutant emissions, TAC emissions, or odors that would be generated during construction or operation of any development project in the parcel area would be subject to SDAPCD Rule 51. Violations can be reported to the SDAPCD in the form of an air quality complaint by telephone, email, and online form. Complaints are investigated by the SDAPCD as soon as possible.

SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust: This rule regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project area (SDAPCD 2009b). Construction activities, primarily during earth-disturbing activities, may result in fugitive dust emissions that would be subject to SDAPCD Rule 55. Fugitive dust emissions are not anticipated during onsite operation of the development.

SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2021b). Construction and operation activities would include application of architectural coatings (e.g., paint and other finishes), which are subject to SDAPCD Rule 67.0.1. Architectural coatings used in the reapplication of coatings during operation of the development would be subject to the VOC content limits identified in SDAPCD Rule 67.0.1, which applies to coatings manufactured, sold, or distributed within the County.

SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1206: Asbestos Removal: This rule requires owners and operators of any renovation or demolition operation (with a few exceptions) to perform a facility survey to determine the presence or absence of Asbestos Containing Material (ACM), regardless of the age of the facility, prior to the renovation or demolition of the building(s) (SDAPCD 2017). Owners or operators are required to notify the District prior to the demolition and removal of ACM, and to hire a trained ACM removal firm to remove and dispose of any ACM per the rule. This rule is applicable to the Project.

3.3.2 San Diego Association of Governments

SANDAG is the regional planning agency for the County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SANDAG serves as the federally designated metropolitan planning organization for the County. With respect to air quality planning and other regional issues, SANDAG has prepared San Diego Forward: The Regional Plan (Regional Plan) for the San Diego Region (SANDAG 2021a). The Regional Plan combines the big-picture vision for how the region will grow over the next 30 years with an implementation program to help make that vision a reality. The Regional Plan, including its Sustainable Communities Strategy (SCS), is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so that it meets the diverse needs of the San Diego region through 2050.

In regard to air quality, the Regional Plan sets the policy context in which SANDAG participates in and responds to the air district's air quality plans and builds off the air district's air quality plan processes that are designed to meet health-based criteria pollutant standards in several ways (SANDAG 2021a). First, it complements air quality plans by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in air quality plans. Second, the Regional Plan 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 February 26, 2021, SANDAG's Board of Directors adopted the final 2021 Regional Transportation Improvement Program, which is a multibillion-dollar, multiyear program of proposed major transportation projects in the San Diego region. Transportation projects funded with federal, state, and TransNet (the San Diego transportation sales tax program) must be included in an approved Regional Transportation Improvement Program. The programming of locally funded projects also may be programmed at the discretion of the agency. The 2021 Regional Transportation Improvement Program covers five fiscal years and incrementally implements the Regional Plan (SANDAG 2021c).

3.3.3 City of San Diego

The San Diego Municipal Code addresses air quality and odor impacts in Chapter 14, Article 2, Division 7 paragraph 142.0710, "Air Contaminant Regulations," which states

that air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located (City of San Diego 2010).

The San Diego Municipal Code also addresses the hazards of lead-based paint in Chapter 5, Article 4, Division 10, which states that any disturbance or removal of paint from any surface on the interior or exterior of a building constructed prior to January 1, 1979, or from any surface on a steel structure, shall use lead-safe work practice standards, unless a Certified Lead Inspector/Assessor determines, prior to paint removal or disturbance, that the lead concentration in the paint is below 1000 ppm or 0.5 mg/cm² (City of San Diego 2008). This rule applies to the Project, since some of the buildings to be demolished were built before 1979.

The City of San Diego's General Plan is comprised of 10 elements that provide a comprehensive slate of citywide policies and further the City of Villages smart growth strategy for growth and development. The General Plan was comprehensively updated by unanimous vote of the City Council in 2008. The City Council also certified the General Plan Program Environmental Impact Report and adopted associated amendments to the Land Development Code. Various updates to the General Plan have occurred since 2008. The General Plan update did not include land use designation or zoning changes, which is the purview of the City's community plans.

Community plans, such as the Otay Mesa-Nestor Community Plan (OMNCP), work together with the General Plan to provide location-based policies and recommendations in the City's fifty-plus community planning areas. Community plans are written to refine the General Plan's citywide policies, designate land uses and housing densities, and provide additional site-specific recommendations as needed. Showing the Project's consistency with both the City's General Plan and the OMNCP is an important aspect of this air quality analysis. The OMNCP designates the Project site as Open Space.

3.4 Regional and Local Air Quality Conditions

3.4.1 San Diego Air Basin Attainment Designation

Pursuant to the 1990 federal CAA amendments, the USEPA classifies air basins (or portions thereof) as "attainment" or "non-attainment" 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 "non-attainment" 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 non-attainment designation are redesignated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act (CCAA), like

its federal counterpart, calls for the designation of areas as “attainment” or “non-attainment,” but based on the CAAQS rather than the NAAQS.

A complete listing of the current attainment status with respect to both federal and state non-attainment status by pollutants for the SDAB is shown in Table 2 (SDAPCD 2021a).

TABLE 2 SUMMARY OF SAN DIEGO AIR BASIN (SDAB) FEDERAL AND STATE ATTAINMENT STATUS		
Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Non-attainment	Non-attainment
Ozone (1-Hour)	Attainment *	Non-attainment
Carbon Monoxide	Attainment	Attainment
PM ₁₀	Unclassifiable **	Non-attainment
PM _{2.5}	Attainment	Non-attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

* The federal 1-hour standard of 12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in state Implementation Plans.

** At the time of designation, if the available data does not support a designation of attainment or non-attainment, the area is designated as unclassifiable.

3.4.2 Local Ambient Air Quality

The SDAPCD monitors air quality conditions at locations throughout the SDAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants, including criteria pollutants, ozone precursors and TACs, and to determine whether the CAAQS and the NAAQS are met. The monitor closest to the Project site is the Chula Vista monitoring station, located approximately 3.25 miles northeast of the Project site. A summary of the data recorded at the Chula Vista monitoring station from 2019 through 2021 is presented in Table 3.

**TABLE 3
 AMBIENT AIR BACKGROUND POLLUTANT
 CONCENTRATIONS/EXCEEDANCES/STANDARDS**

Pollutant	2019	2020	2021
Ozone (O₃)			
State maximum 1-hour concentration (ppm)	0.090 ¹	0.106¹	0.084 ¹
National maximum 8-hour concentration (ppm)	0.076¹	0.086¹	0.066 ¹
State maximum 8-hour concentration (ppm)	0.077¹	0.086¹	0.067 ¹
<u>Number of Days Standard Exceeded</u>			
CAAQS 1-hour (>0.09 ppm)	0 ¹	1 ¹	0 ¹
NAAQS 8-hour (>0.070 ppm)/CAAQS 8-hour (>0.070 ppm)	2/2 ¹	4/4 ¹	0/0 ¹
Respirable Particulate Matter (PM₁₀)			
National maximum 24-hour concentration (! g/m ³)	68.2 ¹	68 ²	46 ²
State maximum 24-hour concentration (! g/m ³)	69.4¹	68²	46 ²
State annual average concentration (! g/m ³)	19.0 ²	24.8²	23.9²
<u>Annual or Days Standard Exceeded *</u>			
NAAQS 24-hour (>150 ! g/m ³)	0 ¹	0 ²	0 ²
CAAQS 24-hour (>50 ! g/m ³)/Annual (>20 ! g/m ³)	1 ¹ /No ²	**/Yes ²	0/Yes ²
Fine Particulate Matter (PM_{2.5})			
National Maximum 24-hour concentration (! g/m ³)	18.6 ¹	46.7¹	24.9 ¹
Annual average concentration (! g/m ³)	8.1 ²	10.7 ²	9.5 ²
<u>Annual or Days Standard Exceeded *</u>			
NAAQS 24-hour (>35 ! g/m ³)/Annual (>12.0 ! g/m ³)	0 ¹ /No ²	6 ¹ /No ²	0 ¹ /No ²
CAAQS Annual (>12 ! g/m ³)	No ²	No ²	No ²

Notes:

! g/m³ = micrograms per cubic meter; ppb = parts per billion; ppm = parts per million; N/A = Not available.

CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard.

BOLD value indicates greater than standard.

1. Measured at the Chula Vista station (80 E. J St., Chula Vista, approximately 3.25 miles northeast of the Project site) using iADAM Top 4 Summary.

2. Measured at the Chula Vista station (80 E. J St., Chula Vista, approximately 3.25 miles northeast of the Project site) using SDAPCD 5-Year Air Quality Summary, as there was not a complete set of data for local stations on iADAM.

* In the case of an Annual standard a No or Yes response is provided. And, where applicable, number of days presented are the Estimated Number of days as provided in iADAM (as sampling not performed continuously)

** Number of exceedances are not available in SDAPCD summary.

Source: CARB 2022, SDAPCD 2021c

3.5 Air Quality Analysis Significance Criteria

3.5.1 Thresholds of Significance

3.5.1.1 City of San Diego Thresholds

The City of San Diego has approved guidelines for determining significance, based upon Appendix G of the CEQA Guidelines (City of San Diego 2022). The criteria provided by the City of San Diego guidelines expand upon the items listed above in Section 3.5.1.1. A project would have a significant air quality environmental impact if it would:

- a. *Conflict with or obstruct implementation of the applicable air quality plan;*
- b. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
- c. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region (SDAB) is non-attainment under an applicable federal or state ambient standard (including release emissions which exceed quantitative thresholds for ozone precursors);*
- d. *Expose sensitive receptors (including, but not limited to, residences, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations;*
- e. *Create objectionable odors affecting a substantial number of people;*
- f. *Release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.*

A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of the ozone standard by generating emissions that equal or exceed the established long-term quantitative thresholds for pollutants or exceed a state or federal ambient air quality standard for any criteria pollutant. If a project is found to have a significant effect, the project would have to incorporate mitigation measures.

To determine whether a project would (a) conflict with or obstruct implementation of the applicable air quality plan (that is, the San Diego RAQS or SIP) or (b) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, or (c) result in a cumulatively considerable net increase of PM₁₀ or exceed quantitative thresholds for ozone precursors (i.e., NO_x and VOCs), project emissions may be evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 (SDAPCD 2020b) for the preparation of Air Quality Impact Assessments (AQIAs).

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to

air quality. The screening thresholds from Rule 20.2 (SDAPCD 2020b) are included in Table 4. The Rule 20.2 thresholds are the same as in the City’s CEQA Significance Determination Thresholds (City of San Diego 2022; Thresholds), except for ROG. The City Thresholds do not provide screening thresholds for PM_{2.5}. In the absence of adopted thresholds for PM_{2.5} in the City Thresholds, the Rule 20.2 thresholds of 67 pounds per day or 10 tons per year were used. City CEQA guidance doesn’t specify threshold limits for cancer and chronic risk impacts, so SDAPCD thresholds of 10 in one million for cancer risk and 1.0 Health Hazard Index (HHI) for chronic and acute risk are used to determine whether or not health impacts from construction DPM are significant (SDAPCD 2022).

TABLE 4 SCREENING LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS CONSTRUCTION AND OPERATIONS		
Pollutant	Daily Threshold (lb/day)	Annual Threshold (tons/year)
Criteria Pollutants		
Respirable Particulate Matter (PM ₁₀)	100	15
Fine Particulate Matter (PM _{2.5})	67	10
Oxides of Nitrogen (NO _x)	250	40
Oxides of Sulfur (SO _x)	250	40
Carbon Monoxide (CO)	550	100
Reactive Organic Gases (ROG) ¹	137	15
Toxic Air Contaminants		
Cancer Risk Threshold	10 in one million	
Non-cancer Chronic and Acute Risk Threshold	1.0 HHI	

Sources: SDAPCD Rule 20.2; City of San Diego CEQA Thresholds (City of San Diego 2022); SDAPCD 2022.
 1. For purpose of this analysis, Reactive Organic Gases (ROGs) are considered to be equivalent to Volatile Organic Compounds (VOCs).

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed “sensitive receptors” are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. As identified by the City (City of San Diego 2022), the following groups and locations should be considered sensitive receptors:

Medical patients at:

- Adult/senior day care

- Senior citizen centers/facilities/retirement homes
- Hospitals/convalescent homes/long-term health care facilities
- Acute care/walk-in ambulatory care clinics
- Rehabilitation centers

Elderly persons/athletes/students/children at:

- Public parks/playgrounds
- Long-term care/assisted living facilities
- Churches
- Schools
- Child care centers/homes
- Athletic fields

The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a “considerable” number of persons or businesses in the area would be considered a significant, adverse odor impact. Therefore, any unreasonable odor discernible at the property line of sensitive receptors would be considered a significant odor impact.

4.0 AIR QUALITY ANALYSIS METHODOLOGY

Air quality modeling for the Project development was performed in general accordance with the methodologies outlined in the SDAPCD 2016 RAQS to identify construction and operational emissions associated with the Project. Criteria pollutant emissions were calculated using the California Emissions Estimator Model (CalEEMod) software version 2020.4.0 which incorporates current air emission data, planning methods and protocols approved by CARB (CAPCOA 2021).

As referenced, construction activities would include demolition, site preparation, grading, construction of the buildings/utilities and related improvements as well as paving parking areas. Construction activities would require the use of equipment that would generate criteria air pollutant emissions. For modeling purposes, it was assumed that all construction equipment would be diesel-powered. Construction emissions associated with the development of the Project site were calculated based on default equipment amounts and types. There is currently a vacant residential structure and outbuildings on the parcel, so standard demolition activities would be conservative. Construction emissions were analyzed using the regional thresholds published within the City of San Diego Significance Determination Thresholds Guidelines (City of San Diego 2022).

Operational emissions from the Project would include mobile source emissions, energy emissions and area source emissions. Mobile source emissions would be generated by motor vehicle trips associated with operation of the Project site. Emissions attributable

to energy use include electricity and natural gas consumption for space and water heating. Area source emissions would be generated by landscape maintenance equipment, use of consumer products and painting. To determine whether a regional air quality impact would occur from this development, the increases in emissions were compared with the operational thresholds published by the City of San Diego (City of San Diego 2022).

4.1 Construction Emissions

Construction of the development would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM₁₀ and PM_{2.5}) from soil disturbance and exhaust emissions (NO_x, CO, and SO₂) from heavy construction vehicles. As noted, construction would generally consist of demolition, site preparation and lot grading, construction of the buildings and related improvements, and the application of architectural coating (painting).

Table 5 shows the construction schedule assumed for each of the construction phases at the site. A five-day workweek was assumed with no overlap between the construction phases. Default values were assumed for the number and types of construction equipment for each construction phase.

TABLE 5 CONSTRUCTION SCHEDULE – PALM & HOLLISTER DEVELOPMENT	
Construction Phase	Estimated Dates
Demolition	June 1, 2023 – June 30, 2023
Site Preparation	July 3, 2023 – October 27, 2023
Grading	October 30, 2023 – February 28, 2024
Building Construction	March 1, 2024 – April 30, 2025
Paving/Architectural Coating	May 1, 2025 – June 30, 2025

Site preparation and grading would involve the greatest concentration of heavy equipment use and the highest potential for fugitive dust emissions. Any development would be required to comply with SDAPCD Rule 55, which identifies fugitive dust standards and is required to be implemented at all construction sites located within the SDAB. Therefore, the following assumptions 1 through 5, which generally reduce fugitive dust emissions, were included in CalEEMod for site preparation and grading phases of construction. Assumption 6 was included in CalEEMod for the architectural coating phase of construction.

- 1. Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.

2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least three times daily, preferably at the start of each morning, mid-day, and after work is completed for the day. For modeling purposes, it was assumed that watering would occur three times daily, during the construction of this development.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.
4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds.
5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
6. **Architectural Coatings.** Construction contractors shall use low-VOC paint (50 g/L for interior and exterior coatings for residential and non-residential buildings, and 100 g/L for parking lot paint) as required by SDAPCD Rule 67.0.1, which became effective on January 1, 2022.

4.2 Operational Emissions

Operational emissions for the Project include emissions from electricity consumption (energy sources), vehicle trips (mobile sources), area sources, landscape equipment, and evaporative emissions as the structures are repainted over the life of developments at the Project site. The majority of operational emissions would be associated with vehicle trips to and from the development. Average daily trips (ADTs) from the from the Transportation Impact Analysis (MBI 2023) were used in the CalEEMod modeling. The first year of operations for the Project will likely be in 2025.

The CalEEMod modeling for operational emissions considered the design conditions listed below:

1. **Architectural coatings.** The use of low-VOC paint (50 g/L for interior and exterior coatings and 100 g/L for parking lot paint) as required by SDAPCD Rule 67.0.1, which became effective on January 1, 2022.

2. **Fireplaces and Woodstoves.** No fireplaces or woodstoves would be installed. Two fire tables and five barbecues onsite would use natural gas for operation. The fire tables were modeled as two gas fireplaces, assumed to operate 3 hours per day for 52 days per year for a total of 156 hours per year; and the five barbecues were modeled as five gas fireplaces, assumed to operate 2 hours per day, 156 days per year plus 3 hours per day, 52 days/year for a total of 468 hours per year.
3. **Increase Density.** The Project is proposing a rezone from AR-1-2, RM-1-1, and RS-1-5 to RM-2-6. The RM-2-6 zone allows up to 34.85 dwelling units per acre (du/ac). The Project proposes 198 units for the 5.92-acre site, resulting in a density of 33.44 du/ac. The applicant's team has coordinated with Planning Department staff regarding the appropriate land use designation for the Project site. Staff are in agreement that the Project can propose a new land use category (Medium-High Density) that will allow 20 – 35 du/ac. To analyze air quality impacts due to maximum density for the proposed RM-2-6 rezoning, an increased density of 34.85 du/ac (206 units) was also analyzed.

5.0 PROJECT AIR QUALITY IMPACT ANALYSIS

The development would generate both construction and operational emissions. Initial construction emissions would include emissions associated with the site development and grading of the development. Operational emissions would include emissions from vehicle traffic. The construction and operational impacts are evaluated and compared to significance criteria in this section.

5.1 Conformance to the Regional Air Quality Strategy

The San Diego Association of Regional Government's (SANDAG)'s 2050 Regional Growth Forecast, adopted in December 2021 (SANDAG 2021b) estimates that the City will have 592,143 housing units in 2025 and 676,236 units in 2035, an increase of 84,093 units or about 8,409 units added per year.

The City is currently in urgent need for housing and is experiencing a housing shortage, as discussed in the City of San Diego General Plan Housing Element 2021-2029 that was approved in 2020 by the City Council and in September 2021 by the California Department of Housing and Community Development. The City of San Diego's portion of the County's Regional Housing Needs Assessment (RHNA) target for the 2021-2029 Housing Element period is 108,036 homes (City of San Diego 2020). While the City is planning for additional housing to meet the need and targeted to permit more than 88,000 new housing units between 2010 – 2020, less than half of those units were constructed (42,275) as of December 2019 (City of San Diego 2020). Considering this, the proposed construction of 198 units or the construction of the maximum allowed 206 units is not anticipated to result in a population increase considering there is a shortage of housing for the existing and planned population. The proposed housing would be growth accommodating and would not be growth inducing beyond planned growth for the City. While the Project would include higher density residential than previously planned for this site in the OMNCP, the City is in need of residential units to meet

anticipated growth. Therefore, the proposed Project would not conflict with SANDAG's regional growth forecast for the City.

Any development at the proposed Project site is expected to be required to implement policies, actions, and design guidelines that support General Plan concepts such as increased walkability, enhanced pedestrian and bicycle networks, improved connections to transit, and sustainable development and green building practices. These goals are in line with the RAQS intent to reduce ozone emissions. Any development would be consistent with the SDAPCD's regional goals of improving the balance between jobs and housing, and integrating land uses near major transportation corridors such as the Interstate 5 freeway. The RAQS are implemented via the SDAPCD's rules. The Project would be required to be consistent with these rules, such as rules pertaining to architectural coatings and water heaters. Therefore, the proposed amendment to the OMNCP would be consistent with the RAQS and SIP.

The impact on regional attainment planning would **be less than significant** under CEQA.

5.2 Conformance to Federal and State Ambient Air Quality Standards

5.2.1 Construction Emissions

Construction of the development at the site would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM₁₀ and PM_{2.5}) from soil disturbance and exhaust emissions (NO_x, CO, and SO₂) from heavy construction vehicles. For the purpose of estimating emissions, it was assumed that 5.5 acres of the 5.92-acre parcel would be disturbed and developed for overall construction. As noted, construction would generally consist of demolition, site preparation, grading, building construction, paving, and application of architectural coatings (painting).

Site preparation and grading would involve the greatest concentration of heavy equipment use and the highest potential for fugitive dust emissions. Soil needed for cut and fill activities on the site due to site preparation and grading would require import of 23,500 cubic yards of soil. In addition, remedial grading would involve 67,000 cubic yards of excavation to depths of 17 feet. Any development would be required to comply with SDAPCD Rule 55, which identifies fugitive dust standards and is required to be implemented at all construction sites located within the SDAB.

Construction is assumed to begin in mid-2023 and be completed by mid-2025. Because the construction of both scenarios (partial buildout and full buildout) are almost identical, the emissions of criteria pollutants are almost identical. For this reason, Table 6 shows modeled maximum daily emissions occurring during the construction period at the site for the scenario with the higher emissions (full buildout scenario), with a comparison of daily impacts to the City of San Diego CEQA screening level thresholds.

TABLE 6 MAXIMUM DAILY CONSTRUCTION EMISSIONS – FULL BUILDOUT SCENARIO						
lb/day						
Year	ROG	NO _x	CO	SO ₂	Total PM ₁₀	Total PM _{2.5}
2023	2.71	27.6	20.0	0.05	8.56	5.09
2024	1.92	21.6	19.9	0.05	3.93	2.20
2025	25.5	13.7	19.6	0.04	1.93	0.88
Screening Threshold (lb/day)	137	250	550	250	100	67
Exceeds Threshold (Yes/No)?	No	No	No	No	No	No

See Appendix A for CalEEMod ver. 2020.4.0 computer model output for the daily emissions shown. The higher lb/day value between Winter and Summer results is shown for each pollutant.

Table 7 shows modeled maximum annual impacts of criteria pollutants at the Project site by year throughout the assumed construction period for the full buildout scenario, with a comparison of each year’s annual impacts to the City of San Diego CEQA screening level thresholds.

TABLE 7 MAXIMUM ANNUAL CONSTRUCTION EMISSIONS – FULL BUILDOUT SCENARIO						
tons/year						
Year	ROG	NO _x	CO	SO ₂	Total PM ₁₀	Total PM _{2.5}
2023	0.18	1.91	1.38	0.003	0.47	0.28
2024	0.24	2.07	2.50	0.006	0.30	0.15
2025	0.62	0.80	1.21	0.002	0.10	0.05
Screening Threshold (tons/year)	15	40	100	40	15	10
Exceeds Threshold (Yes/No)?	No	No	No	No	No	No

See Appendix A for CalEEMod ver. 2020.4.0 computer model output for the annual emissions shown

All criteria pollutant emissions are below the daily and annual screening level thresholds, as analyzed for each year of construction of the full buildout scenario. As such, air quality impacts from the construction of either of the two scenarios for this development would be **less than significant** under CEQA.

5.2.2 Operational Emissions

Operational emissions would include emissions from electricity consumption (energy sources), vehicle trips (mobile sources), area sources, landscape equipment, and evaporative emissions as the structures are repainted over the life of the development. The majority of operational emissions are associated with vehicle trips to and from the site. Average daily trips (ADTs) from the from the Local Mobility Analysis (MBI 2023)

were used in the CalEEMod modeling. Tables 8 and 9 summarize emissions associated with operation of the Project site at full buildout. Tables 10 and 11 summarize emission associated with operation of the Project site at partial buildout.

TABLE 8						
MAXIMUM DAILY OPERATIONAL EMISSIONS – FULL BUILDOUT SCENARIO						
(lb/day)						
Category	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Area (Total)	5.30	0.33	17.0	0.002	0.11	0.11
Energy (Natural Gas)	0.05	0.40	0.18	0.003	0.03	0.03
Mobile (Total)	2.85	3.06	26.1	0.05	6.06	1.64
Total	8.20	3.79	43.3	0.06	6.20	1.78
Screening Threshold (lb/day)	137	250	550	250	100	67
Exceeds Threshold (Yes/No)?	No	No	No	No	No	No

See Appendix A for CalEEMod ver. 2020.4.0 computer model output. The higher lb/day value between Winter and Summer results is shown for each pollutant.

TABLE 9						
MAXIMUM ANNUAL OPERATIONAL EMISSIONS – FULL BUILDOUT SCENARIO						
(tons/year)						
Category	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Area (Total)	0.92	0.03	1.53	0.0002	0.009	0.009
Energy (Natural Gas)	0.008	0.07	0.03	0.0005	0.006	0.006
Mobile (Total)	0.51	0.55	4.64	0.01	1.08	0.29
Total	1.44	0.65	6.21	0.01	1.09	0.31
Screening Threshold (tons/year)	15	40	100	40	15	10
Exceeds Threshold (Yes/No)?	No	No	No	No	No	No

See Appendix A for CalEEMod ver. 2020.4.0 computer model output.

TABLE 10						
MAXIMUM DAILY OPERATIONAL EMISSIONS – PARTIAL BUILDOUT SCENARIO						
(lb/day)						
Category	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Area (Total)	5.10	0.32	16.4	0.002	0.10	0.10
Energy (Natural Gas)	0.04	0.38	0.17	0.002	0.03	0.03
Mobile (Total)	2.82	2.94	25.0	0.05	5.82	1.58
Total	7.96	3.65	41.6	0.06	5.96	1.71
Screening Threshold (lb/day)	137	250	550	250	100	67
Exceeds Threshold (Yes/No)?	No	No	No	No	No	No

See Appendix A for CalEEMod ver. 2020.4.0 computer model output. The higher lb/day value between Winter and Summer results is shown for each pollutant.

TABLE 11						
MAXIMUM ANNUAL OPERATIONAL EMISSIONS – PARTIAL BUILDOUT SCENARIO						
(tons/year)						
Category	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Area (Total)	0.88	0.03	1.47	0.0002	0.009	0.009
Energy (Natural Gas)	0.008	0.07	0.03	0.0005	0.006	0.006
Mobile (Total)	0.49	0.53	4.46	0.01	1.04	0.28
Total	1.38	0.63	5.97	0.01	1.05	0.30
Screening Threshold (tons/year)	15	40	100	40	15	10
Exceeds Threshold (Yes/No)?	No	No	No	No	No	No

See Appendix A for CalEEMod ver. 2020.4.0 computer model output.

As shown in Tables 8 and 9, the operational emissions associated with full buildout of this development would not exceed the City of San Diego CEQA screening level thresholds for ROG, NO_x, CO, SO_x, PM₁₀ or PM_{2.5}. Tables 10 and 11 show that operational emissions associated with partial buildout of the development are slightly lower than those for full buildout. For either scenario, operational air quality impacts (including impacts related to criteria pollutants, sensitive receptors and violations of air quality standards) would be **less than significant** under CEQA.

5.3 Cumulative Impacts

Regarding short-term construction impacts, the SDAPCD thresholds of significance are used to determine whether the Project may have a short-term cumulative impact. As shown in Tables 6 and 7, the Project would not exceed any criteria air pollutant thresholds during construction. Therefore, the scenario would have a less than significant cumulative impact during construction. Additionally, for the SDAB, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing

cumulative operational emissions in the basin to ensure that the SDAB continues to make progress toward NAAQS- and CAAQS-attainment status. As such, cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality if, in combination, they would conflict with or obstruct implementation of the RAQS. Similarly, individual projects that are inconsistent with the regional planning documents upon which the RAQS is based would have the potential to result in cumulative operational impacts if they represent development and population increases beyond regional projections.

Regarding long-term cumulative operational emissions in relation to consistency with local air quality plans, the SIP and RAQS serve as the primary air quality planning documents for the state and SDAB, respectively. The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and the County as part of the development of their general plans. SANDAG's 2050 Regional Growth Forecast was adopted in October 2013 and is the current growth forecast; it estimates that the City would have 531,423 units in 2016, 592,143 units in 2025, and 676,236 units in 2035 (SANDAG 2013). This would equate to an additional 6,746 units per year from 2016 to 2025 and an additional 8,409 units per year from 2025 to 2035. Implementation of the proposed Project would result in an increase in 198 residential units in a location that is currently assumed to be open space in SANDAG's growth projections. The proposed zoning would ultimately allow up to 206 units on the site, even though only 198 are currently proposed. The proposed Project is expected to add these 198 units to market in 2025. The Project would add an estimated 542 people to the area (SANDAG 2013). The rezoning could generate up to 564 people based on 2.74 persons per household (SANDAG 2013). The expected population change, which did not include the conversion of open space to medium density residential in the City of San Diego is expected to result in the addition of 246,204 residents by 2050. As discussed above, the City of San Diego has a housing shortage and is in need of additional housing to meet the growth projections. The proposed housing would accommodate an addition of 542 or 564 people to the area and the Project would assist the City in meeting its Regional Housing Needs and is not anticipated to be inducing growth beyond that planned by SANDAG. Therefore, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. As stated previously, the Project would not result in significant regional growth that is not accounted for within the RAQS. As a result, the development would not result in a cumulatively considerable contribution to pollutant emissions and would result in a **less than significant** impact under CEQA.

5.4 Impacts to Sensitive Receptors

Based on a desktop review of the Project vicinity, the adjacent sensitive receptors are the residents of La Paloma Mobile Estates (approximately 35 meters south of the center of the Project site); the workers and children/students at the Ocean View Christian Academy Preschool and K-12 school located approximately 85 meters southeast of the center of the Project site; and a single family house located approximately 230 meters southwest of the center of the Project site.

5.4.1 Diesel Particulate Matter

Toxic air contaminants (TACs) that would potentially be emitted during construction activities would be DPM emitted from heavy-duty construction equipment and heavy-duty trucks. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts. According to the OEHHA, health risk assessments (HRAs) should be based on a 30-year exposure duration based on typical residency period; however, such assessments should be limited to the period/duration of activities associated with the Project (OEHHA 2015). Thus, the duration of proposed construction activities (approximately 24 months) would only constitute a small percentage of the total long-term exposure period and would not result in exposure of proximate sensitive receptors to substantial TACs. After proposed construction is completed, there would be no long-term source of TAC emissions during operations.

A screening HRA to evaluate the health risk from diesel exhaust emissions due to construction activities was performed using Lakes Software AERSCREEN View, version 4.0.0. A single rectangular area source covering the entire Project site was used in AERSCREEN to model concentrations of DPM at nearby off-site receptors. The modeling parameters are shown in Table 12.

TABLE 12 AERSCREEN MODELING PARAMETERS	
Parameter	Details
Source Type	AREA RECT
Source Elevation	14 meters
Release Height	5 meters
Initial Vertical Dimension	1.16 meters
Dispersion Option	Urban (Population of Otay Mesa Nestor = 66,032)
Emission Rate	1 g/sec
Meteorology Parameters	Min. Temp. = 277 K Max. Temp. = 303 K Min. Wind Speed = 0.5 m/sec Anemometer Ht. = 10 m
Surface Characteristics	User Specified: Land Use Type = Desert Shrubland, Annual Avg.
Flagpole Receptors?	No
Min. Distance to Ambient Air	Distance from Center of Source to Fenceline = 30 meters
Max. Distance to Downwind Receptors	500 meters
Additional Receptors	35 meters, 85 meters, and 230 meters
Fumigation Options	None

Table 13 summarizes modeled cancer and chronic risk impacts and compares them to SDAPCD significance thresholds. Cancer and chronic risk calculations and AERSCREEN output are included in Appendix C.

TABLE 13 SCREENING HRA RISK IMPACTS FROM CONSTRUCTION DPM			
Receptor	Risk Results	Threshold	Exceed Threshold?
Resident 30-yr Cancer Risk			
Resident at La Paloma	53.6 in one million	10 in one million	Yes
Resident at Single Family House Southwest of Site	33.8 in one million		Yes
Student/Child at Ocean View School	11.1 in one million		Yes
Worker 25-yr Cancer Risk			
Worker at Ocean View School	3.40 in one million	10 in one million	No
Non-cancer Chronic Risk			
Resident at La Paloma	0.03	1.0 HI	No
Resident at Single Family House Southwest of Site	0.02		No
Worker/Child at Ocean View School	0.03		No

Non-cancer chronic risk impacts at off-site sensitive receptors are well below the SDAPCD significance thresholds. However, because cancer risk thresholds are exceeded at all sensitive receptor locations except the worker, DPM emissions associated with Project construction will need to be reduced by approximately 85%. One mitigation measure is to use Tier 4 equipment instead of Tier 2 or 3 equipment. To demonstrate how the use of Tier 4 equipment affects cancer risk impacts at off-site sensitive receptors, another CalEEMod run was completed. This CalEEMod run was identical to the run that produced the results reported in Section 5.2.1, except the “Tier 4 Final” mitigation option was selected for all of the construction equipment. This Tier 4 CalEEMod run shows that this mitigation measure reduces Exhaust PM_{2.5} emissions by 91.5%, which exceeds the minimum 85% reduction needed to reduce cancer impacts at the La Paloma resident location to below the significance threshold. Table 14 summarizes the cancer risk impacts using Exhaust PM_{2.5} results from the Tier 4 CalEEMod run (included in Appendix A).

To reduce DPM emissions associated with Project construction to below a level of significance, the Project will meet Mitigation Measure 1, defined below.

Mitigation Measure 1: Diesel Exhaust Emissions Reduction. During construction activities, efforts shall be made to reduce diesel exhaust emissions from all construction equipment greater than 100 hp with use of Tier 4 Final equipment, including equipment with an installed diesel particulate filter (DPF), where feasible, and by use of other emission reduction practices. Construction equipment greater than 100 hp that is certified less than Tier 4 Final may only be used if unavailable from vendors, in which case equipment with DPFs installed shall be used whenever possible. Additionally, measures shall be employed to reduce DPM emissions, that may include, but would not be limited to, reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the

proposed Project using cleaner vehicle fuel, and/or limiting the number of individual construction Project components occurring simultaneously. These measures would be used to ensure that health risk impacts from construction do not exceed significance levels.

Receptor	Risk Results	Threshold	Exceed Threshold?
Resident 30-yr Cancer Risk			
Resident at La Paloma	5.09 in one million	10 in one million	No
Resident at Single Family House Southwest of Site	3.21 in one million		No
Student/Child at Ocean View School	1.05 in one million		No
Worker 25-yr Cancer Risk			
Worker at Ocean View School	0.32 in one million	10 in one million	No

This screening HRA demonstrates that, with Mitigation Measure 1 in place to reduce DPM emissions from construction, the off-site sensitive receptors would not be exposed to significant cancer or chronic risk impacts. In addition, compliance with the SDAPCD rules and regulations would reduce the fugitive dust emissions during construction and associated impacts from fugitive dust to sensitive receptors.

Operating emissions would be negligible and would not have the potential to impact sensitive receptors.

With Mitigation Measure 1 in place to reduce construction DPM emissions, the development’s construction and operation air pollutant emissions would not expose sensitive receptors to substantial pollutant concentrations and would result in a **less than significant** impact under CEQA.

5.4.2 CO Hotspots

Based on the City’s Significance Determination Thresholds (City of San Diego 2022), a residential project has potential to result in a CO hotspot that could create health concerns if it would generate traffic equivalent to 950 single-family units (9,500 ADT) or cause a roadway to deteriorate to LOS E or worse. If a proposed development is within 400 feet of a sensitive receptor and the operating Level of Service (LOS) is worse than D, a site-specific CO hotspot analysis should be performed to determine if health standards are potentially exceeded and to determine the level of adverse effect on the receptors.!!

The nearest sensitive receptor to the Project is the La Paloma mobile homes development that is adjacent to the access road to the Project site. The Project would include up to 206 residential units and would generate up to 1,112 ADT (MBI 2023). In combination with the adjacent 390 units of the Palm Avenue Transit Oriented Development (TOD) project that would generate 2,462 ADT, this access roadway would not exceed 9,500

ADT and is not anticipated to result in a CO hotspot.

As indicated in the Local Mobility Analysis (MBI 2023), the I-5 ramps at Palm Avenue, Palm Avenue and Hollister Street intersection and Palm Avenue and Harris Avenue-MTS Access operate at LOS D or better overall in the opening year 2024 plus Project conditions. Thus, the Project is not anticipated to result in a CO hotspot. In addition, based on the results for CO emissions presented in Tables 8 - 11, the operational impacts of resident and worker traffic on this access road is expected to be less than significant.

Overall, the Project CO Hotspots impact would be **less than significant** under CEQA.

5.5 Objectionable Odors

Construction of the Project at the site would involve the use of diesel-powered construction equipment. Diesel exhaust odors may be noticeable temporarily at adjacent properties; however, construction activities would be temporary and are not considered significant. The proposed future residential land use designation of the site would not include industrial or agricultural uses that are typically associated with objectionable odors. The Project site is located about 100 feet south of an existing plant nursery, separated by a row of trees and a paved 2-lane road. Typical odors from plant nurseries, such as moist soil and tree/flower odors, are not deemed offensive to most people. The row of trees that separates the nursery from the road and Project site also act to dilute odor impacts at the Project site. Prevailing winds in the area are from offshore (west to east) which blow perpendicular to the Project site, and not from the nursery toward the Project site, further diluting odors from the nursery. Therefore, impacts associated with objectionable odors would be **less than significant** under CEQA.

5.6 Air Contaminant Emissions

As demonstrated in Tables 6 and 7 in Section 5.2 and Table 14 in Section 5.4, construction of the Project would not result in substantial quantities of air contaminants being emitted beyond the boundaries of the premises. The existing buildings that will be demolished in the Demolition phase of Project construction could possibly contain asbestos containing materials (ACMs) or lead based paint, because they were built before regulations were put in place to ban these materials. Demolition of the existing buildings on the Project site would be completed in compliance with City ordinances and SDAPCD rules so that any ACM and/or lead-based paint that may be present in the buildings will be properly removed and disposed of, thereby having no impact on nearby sensitive receptors.

The Project site is a former agricultural site. Pesticides and herbicides can accumulate in soils over time, and grading activities can cause contaminated soils to become airborne and inhalable. Inhalation of particulate matter can cause health concerns. Phase I and Phase II Environmental Site Assessments (ESAs) were conducted (AEC 2020a, 2020b). The Phase I ESA concluded that there is no evidence of Recognized Environmental Conditions associated with the Project site. The current uses of the site and its adjacent properties are not indicative of the use, treatment, storage, disposal, or generation of significant quantities of hazardous substances or petroleum products (based on visual observations and regulatory database review) that have adversely impacted the site.

The Phase II ESA included soil sampling and an analysis that detected lead, Title 22 metals, and organochlorine concentrations; however, the levels did not exceed their respective residential or commercial screening levels. As such, soil in the areas sampled are not considered to be toxic. In addition, compliance with the SDAPCD rules and regulations would reduce the fugitive dust emissions during construction and associated impacts from fugitive dust to sensitive receptors. Daily watering of the site prior to/during grading reduces the dust emissions by 50 percent; a second daily watering reduces the dust emissions by 75 percent (City of San Diego 2022). Compliance with SDACPD Rule 55 (watering the site during grading and site preparation phases) would control fugitive dust that could possibly contain these pesticides/herbicides to the point of insignificance at off-site locations.

As demonstrated in Tables 8 - 11 in Section 5.2, the operation of both the full buildout scenario and the partial buildout scenario of the Project would not result in substantial quantities of air contaminants being emitted beyond the boundaries of the premises. Because residential land uses are not typically stationary sources that emit large amounts of air contaminants, and because the proposed future residential land use designation of the site is in keeping with the land use designations of adjacent properties, the Project would not add substantial quantities of air contaminants beyond the existing land use quantities into the region. Therefore, impacts associated with air contaminant emissions beyond the boundaries of the premises would be **less than significant** under CEQA.

6.0 CONCLUSIONS

The proposed Project requires an amendment to the Otay Mesa-Nestor Community Plan to change the existing land use designation from Open Space to Residential Medium-High Density (20-35 du/acre) and a Rezone to change the existing zone from AR-1-2, RM-1-1, and RS-1-5 to RM-2-6. A Rezone requires the proposed Project analyze the most intense use permitted under the new zone (referred to here as "full buildout"). Under the proposed RM-2-6 zone, the Project site could be developed to construct up to 206 dwelling units. This equates to an additional eight dwelling units compared to the proposed Project, which plans to construct a total of 198 dwelling units. Adding eight dwelling units would not affect the analysis and conclusions of this report, because emissions of criteria pollutants for full buildout of the Project site are only slightly higher or identical to emissions for partial buildout of the Project site, and both scenarios are well below the City's air quality thresholds for construction and operations. In addition, with the implementation of Mitigation Measure 1, cancer risk impacts due to DPM emissions from construction activities will be reduced to below the significance threshold.

Once the Project site is rezoned to RM-2-6 medium density residential use, the potential full buildout of the site at 34.85 DU/acre will be consistent with the growth forecasts of the OMNCP and the City of San Diego General Plan, and therefore will be consistent with the RAQS. Assuming potential full buildout of the residential units at the Project site, the air quality impact analysis demonstrates that, with Mitigation Measure 1 in place, short-term emissions from construction of the development would not exceed the City's or the SDAPCD air quality thresholds. Operational emissions include emissions from electricity consumption (energy sources), vehicle trips (mobile sources), area sources, landscape

equipment and architectural coating emissions. The majority of operational emissions are associated with vehicle trips to and from the Project site. The net change in emissions between what currently operates on the site versus the proposed Project would not exceed the SDAPCD thresholds for the criteria pollutants evaluated, nor would the impact be cumulatively considerable. The Project would not cause substantial concentration impact to sensitive receptors, nor objectionable odors to large numbers of persons. The development will also be consistent with the regional and community plans. For these reasons, this study finds that the Project air quality impacts will be **less than significant with mitigation**.

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APPENDIX A

CALEEMOD ANNUAL AND DAILY OUTPUT FILES

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APPENDIX A-1

**CALEEMOD ANNUAL AND DAILY OUTPUT FILES
FULL BUILDOUT SCENARIO**

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Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Palm and Hollister
San Diego Air Basin, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.70	1000sqft	0.10	3,720.00	0
User Defined Recreational	0.19	User Defined Unit	0.19	0.00	0
Apartments Mid Rise	206.00	Dwelling Unit	5.21	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	539.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Max. Buildout = 206 units; Default residential will include parking areas, with rec/leasing center 3720 sqft. Open space and other recreational facilities onsite to add to total project acreage, 5.5 acres graded.

Grading - Added more acreage to site prep phase to account for remedial grading.

Architectural Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Vehicle Trips - From TIA (Michael Baker, 11/2022), 6 daily trips/DU, with 10% transit credit = 5.4 trips/DU. General Office Bldg rec/leasing building: no traffic listed for building in TIA, so trip rate is assumed to be inclusive.

Woodstoves - No hearths listed in Site Plan (Summa, 7/2022), confirmed by KLR. Five gas fireplaces have been included to model the gas-fired BBQ stoves within the rec area, assumed to operate (combined) 468 hrs/yr plus two gas fire tables assumed to operate (combined) 156 hrs/yr.

Area Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - Max. buildout density of 34.85 du/acre.

Mobile Commute Mitigation -

Area Mitigation - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 440 for rec/leasing building).

Water Mitigation -

Waste Mitigation - Recycling and Composting (per state standards - 3 streams - CA is aiming for 75% reduction). Assume minimum of 50% applied.

Stationary Sources - Process Boilers -

Stationary Sources - User Defined -

Construction Phase - As modeled in Jan. 2022, but added more time for site prep. because of remedial grading.

Demolition - Square footage of existing buildings from GE measurements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,860.00	440.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	139,050.00	27,810.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	1860	440
tblAreaCoating	Area_Residential_Exterior	139050	27810
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	85.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	304.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/28/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	7/12/2023	10/27/2023
tblConstructionPhase	PhaseEndDate	8/9/2023	2/28/2024
tblConstructionPhase	PhaseEndDate	6/26/2024	4/30/2025
tblConstructionPhase	PhaseEndDate	7/24/2024	6/30/2025
tblConstructionPhase	PhaseEndDate	8/21/2024	6/30/2025
tblConstructionPhase	PhaseStartDate	6/29/2023	7/3/2023
tblConstructionPhase	PhaseStartDate	7/13/2023	10/30/2023
tblConstructionPhase	PhaseStartDate	8/10/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	6/27/2024	5/1/2025
tblConstructionPhase	PhaseStartDate	7/25/2024	5/1/2025
tblFireplaces	FireplaceDayYear	82.00	180.00
tblFireplaces	FireplaceHourDay	3.00	3.45
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	113.30	7.00
tblFireplaces	NumberNoFireplace	20.60	0.00
tblFireplaces	NumberWood	72.10	0.00
tblGrading	AcresOfGrading	88.00	20.00
tblGrading	AcresOfGrading	127.50	20.00
tblGrading	MaterialImported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	3,700.00	3,720.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	0.00	0.19

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	5.42	5.21
tblVehicleTrips	ST_TR	4.91	5.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	5.40
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	5.40
tblVehicleTrips	WD_TR	9.74	0.00
tblWoodstoves	NumberCatalytic	10.30	0.00
tblWoodstoves	NumberNoncatalytic	10.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7086	27.5547	20.0262	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						
2024	1.8829	21.3833	19.8722	0.0503	7.0078	0.7623	7.7701	3.5347	0.7027	4.2374						
2025	25.5005	13.6464	19.5697	0.0417	1.3880	0.5396	1.9276	0.3717	0.5075	0.8792						
Maximum	25.5005	27.5547	20.0262	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7086	27.5547	20.0262	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						
2024	1.8829	21.3833	19.8722	0.0503	3.1644	0.7623	3.9268	1.4961	0.7027	2.1988						
2025	25.5005	13.6464	19.5697	0.0417	1.3880	0.5396	1.9276	0.3717	0.5075	0.8792						
Maximum	25.5005	27.5547	20.0262	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						
Energy	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						
Mobile	3.0824	3.0687	27.5561	0.0614	6.6861	0.0459	6.7320	1.7810	0.0428	1.8238						
Total	8.4287	3.7962	44.7703	0.0657	6.6861	0.1830	6.8691	1.7810	0.1799	1.9609						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						
Energy	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						
Mobile	2.9301	2.8221	25.2755	0.0554	6.0175	0.0417	6.0592	1.6029	0.0389	1.6418						
Total	8.2764	3.5497	42.4897	0.0597	6.0175	0.1788	6.1964	1.6029	0.1760	1.7789						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.81	6.49	5.09	9.13	10.00	2.28	9.79	10.00	2.16	9.28	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/30/2023	5	22	
2	Site Preparation	Site Preparation	7/3/2023	10/27/2023	5	85	
3	Grading	Grading	10/30/2023	2/28/2024	5	88	
4	Building Construction	Building Construction	3/1/2024	4/30/2025	5	304	
5	Paving	Paving	5/1/2025	6/30/2025	5	43	
6	Architectural Coating	Architectural Coating	5/1/2025	6/30/2025	5	43	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 417,150; Residential Outdoor: 27,810; Non-Residential Indoor: 5,580; Non-Residential Outdoor: 440; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1359	0.0000	0.1359	0.0206	0.0000	0.0206						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.1359	0.9975	1.1334	0.0206	0.9280	0.9486						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4400e-003	0.0833	0.0229	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0424	0.1087	0.3829	1.4700e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	8.0300e-003	0.0000	8.0300e-003						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.0530	0.9975	1.0505	8.0300e-003	0.9280	0.9360						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4400e-003	0.0833	0.0229	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0424	0.1087	0.3829	1.4700e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.3158	0.0000	18.3158	9.9576	0.0000	9.9576						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	18.3158	1.2660	19.5818	9.9576	1.1647	11.1224						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1432	0.0000	7.1432	3.8835	0.0000	3.8835						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	7.1432	1.2660	8.4092	3.8835	1.1647	5.0482						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	6.3006	0.7749	7.0756	3.3419	0.7129	4.0549						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0756	4.3674	1.1997	0.0200	0.5839	0.0371	0.6210	0.1601	0.0355	0.1955						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1166	4.3929	1.5597	0.0211	0.7072	0.0377	0.7449	0.1927	0.0361	0.2288						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	2.4573	0.7749	3.2322	1.3034	0.7129	2.0163						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0756	4.3674	1.1997	0.0200	0.5839	0.0371	0.6210	0.1601	0.0355	0.1955						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1166	4.3929	1.5597	0.0211	0.7072	0.0377	0.7449	0.1927	0.0361	0.2288						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	6.3006	0.7244	7.0251	3.3419	0.6665	4.0084						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0747	4.3294	1.2163	0.0196	0.5840	0.0373	0.6212	0.1601	0.0357	0.1957						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0385	0.0229	0.3358	1.0500e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1132	4.3523	1.5522	0.0206	0.7072	0.0379	0.7451	0.1927	0.0363	0.2290						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	2.4573	0.7244	3.1817	1.3034	0.6665	1.9698						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0747	4.3294	1.2163	0.0196	0.5840	0.0373	0.6212	0.1601	0.0357	0.1957						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0385	0.0229	0.3358	1.0500e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1132	4.3523	1.5522	0.0206	0.7072	0.0379	0.7451	0.1927	0.0363	0.2290						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0265	0.9792	0.3470	4.6200e-003	0.1558	6.0400e-003	0.1618	0.0448	5.7700e-003	0.0506						
Worker	0.3849	0.2289	3.3584	0.0105	1.2322	6.2900e-003	1.2385	0.3268	5.7900e-003	0.3326						
Total	0.4114	1.2081	3.7054	0.0152	1.3880	0.0123	1.4003	0.3717	0.0116	0.3833						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0265	0.9792	0.3470	4.6200e-003	0.1558	6.0400e-003	0.1618	0.0448	5.7700e-003	0.0506						
Worker	0.3849	0.2289	3.3584	0.0105	1.2322	6.2900e-003	1.2385	0.3268	5.7900e-003	0.3326						
Total	0.4114	1.2081	3.7054	0.0152	1.3880	0.0123	1.4003	0.3717	0.0116	0.3833						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0257	0.9696	0.3412	4.5300e-003	0.1558	6.0200e-003	0.1618	0.0449	5.7600e-003	0.0506						
Worker	0.3625	0.2072	3.1439	0.0102	1.2322	6.0100e-003	1.2382	0.3268	5.5300e-003	0.3324						
Total	0.3881	1.1768	3.4851	0.0147	1.3880	0.0120	1.4000	0.3717	0.0113	0.3830						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0257	0.9696	0.3412	4.5300e-003	0.1558	6.0200e-003	0.1618	0.0449	5.7600e-003	0.0506						
Worker	0.3625	0.2072	3.1439	0.0102	1.2322	6.0100e-003	1.2382	0.3268	5.5300e-003	0.3324						
Total	0.3881	1.1768	3.4851	0.0147	1.3880	0.0120	1.4000	0.3717	0.0113	0.3830						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.3057					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	24.4766	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0725	0.0414	0.6288	2.0300e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						
Total	0.0725	0.0414	0.6288	2.0300e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.3057					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	24.4766	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0725	0.0414	0.6288	2.0300e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						
Total	0.0725	0.0414	0.6288	2.0300e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9301	2.8221	25.2755	0.0554	6.0175	0.0417	6.0592	1.6029	0.0389	1.6418						
Unmitigated	3.0824	3.0687	27.5561	0.0614	6.6861	0.0459	6.7320	1.7810	0.0428	1.8238						

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,112.40	1,112.40	1112.40	3,176,239	2,858,616
General Office Building	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1,112.40	1,112.40	1,112.40	3,176,239	2,858,616

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
User Defined Recreational	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						
NaturalGas Unmitigated	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
Apartments Mid Rise	4106.48	0.0443	0.3784	0.1610	2.4200e-003		0.0306	0.0306		0.0306	0.0306							
General Office Building	204.141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003							
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000							
Total		0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321							

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.10648	0.0443	0.3784	0.1610	2.4200e-003		0.0306	0.0306		0.0306	0.0306						
General Office Building	0.204141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						
Unmitigated	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2863					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.4880					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.5098	0.1956	16.9796	9.0000e-004		0.0942	0.0942		0.0942	0.0942						
Total	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2863					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.4880					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.5098	0.1956	16.9796	9.0000e-004		0.0942	0.0942		0.0942	0.0942						
Total	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Palm and Hollister - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Palm and Hollister
San Diego Air Basin, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.70	1000sqft	0.10	3,720.00	0
User Defined Recreational	0.19	User Defined Unit	0.19	0.00	0
Apartments Mid Rise	206.00	Dwelling Unit	5.21	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Max. Buildout = 206 units; Default residential will include parking areas, with rec/leasing center 3720 sqft. Open space and other recreational facilities onsite to add to total project acreage, 5.5 acres graded.

Grading - Added more acreage to site prep phase to account for remedial grading.

Architectural Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Vehicle Trips - From TIA (Michael Baker, 11/2022), 6 daily trips/DU, with 10% transit credit = 5.4 trips/DU. General Office Bldg rec/leasing building: no traffic listed for building in TIA, so trip rate is assumed to be inclusive.

Woodstoves - No hearths listed in Site Plan (Summa, 7/2022), confirmed by KLR. Five gas fireplaces have been included to model the gas-fired BBQ stoves within the rec area, assumed to operate (combined) 468 hrs/yr plus two gas fire tables assumed to operate (combined) 156 hrs/yr.

Area Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - Max. buildout density of 34.85 du/acre.

Mobile Commute Mitigation -

Area Mitigation - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 440 for rec/leasing building).

Water Mitigation -

Waste Mitigation - Recycling and Composting (per state standards - 3 streams - CA is aiming for 75% reduction). Assume minimum of 50% applied.

Stationary Sources - Process Boilers -

Stationary Sources - User Defined -

Construction Phase - As modeled in Jan. 2022, but added more time for site prep. because of remedial grading.

Demolition - Square footage of existing buildings from GE measurements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,860.00	440.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	139,050.00	27,810.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	1860	440
tblAreaCoating	Area_Residential_Exterior	139050	27810
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	85.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	304.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/28/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	7/12/2023	10/27/2023
tblConstructionPhase	PhaseEndDate	8/9/2023	2/28/2024
tblConstructionPhase	PhaseEndDate	6/26/2024	4/30/2025
tblConstructionPhase	PhaseEndDate	7/24/2024	6/30/2025
tblConstructionPhase	PhaseEndDate	8/21/2024	6/30/2025
tblConstructionPhase	PhaseStartDate	6/29/2023	7/3/2023
tblConstructionPhase	PhaseStartDate	7/13/2023	10/30/2023
tblConstructionPhase	PhaseStartDate	8/10/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	6/27/2024	5/1/2025
tblConstructionPhase	PhaseStartDate	7/25/2024	5/1/2025
tblFireplaces	FireplaceDayYear	82.00	180.00
tblFireplaces	FireplaceHourDay	3.00	3.45
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	113.30	7.00
tblFireplaces	NumberNoFireplace	20.60	0.00
tblFireplaces	NumberWood	72.10	0.00
tblGrading	AcresOfGrading	88.00	20.00
tblGrading	AcresOfGrading	127.50	20.00
tblGrading	MaterialImported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	3,700.00	3,720.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	0.00	0.19

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	5.42	5.21
tblVehicleTrips	ST_TR	4.91	5.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	5.40
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	5.40
tblVehicleTrips	WD_TR	9.74	0.00
tblWoodstoves	NumberCatalytic	10.30	0.00
tblWoodstoves	NumberNoncatalytic	10.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7128	27.5585	20.0086	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						
2024	1.9156	21.5611	19.7220	0.0503	7.0078	0.7624	7.7702	3.5347	0.7028	4.2375						
2025	25.5102	13.7133	19.4344	0.0411	1.3880	0.5396	1.9276	0.3717	0.5076	0.8793						
Maximum	25.5102	27.5585	20.0086	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7128	27.5585	20.0086	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						
2024	1.9156	21.5611	19.7220	0.0503	3.1644	0.7624	3.9268	1.4961	0.7028	2.1989						
2025	25.5102	13.7133	19.4344	0.0411	1.3880	0.5396	1.9276	0.3717	0.5076	0.8793						
Maximum	25.5102	27.5585	20.0086	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						
Energy	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						
Mobile	3.0097	3.3241	28.2788	0.0588	6.6861	0.0459	6.7320	1.7810	0.0428	1.8238						
Total	8.3560	4.0517	45.4930	0.0631	6.6861	0.1830	6.8692	1.7810	0.1799	1.9610						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						
Energy	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						
Mobile	2.8528	3.0585	26.0562	0.0530	6.0175	0.0417	6.0592	1.6029	0.0389	1.6418						
Total	8.1991	3.7860	43.2704	0.0573	6.0175	0.1788	6.1964	1.6029	0.1760	1.7790						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.88	6.56	4.89	9.07	10.00	2.28	9.79	10.00	2.16	9.28	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/30/2023	5	22	
2	Site Preparation	Site Preparation	7/3/2023	10/27/2023	5	85	
3	Grading	Grading	10/30/2023	2/28/2024	5	88	
4	Building Construction	Building Construction	3/1/2024	4/30/2025	5	304	
5	Paving	Paving	5/1/2025	6/30/2025	5	43	
6	Architectural Coating	Architectural Coating	5/1/2025	6/30/2025	5	43	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 417,150; Residential Outdoor: 27,810; Non-Residential Indoor: 5,580; Non-Residential Outdoor: 440; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1359	0.0000	0.1359	0.0206	0.0000	0.0206						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.1359	0.9975	1.1334	0.0206	0.9280	0.9486						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3500e-003	0.0866	0.0232	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0458	0.1152	0.3652	1.4100e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	8.0300e-003	0.0000	8.0300e-003						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.0530	0.9975	1.0505	8.0300e-003	0.9280	0.9360						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3500e-003	0.0866	0.0232	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0458	0.1152	0.3652	1.4100e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.3158	0.0000	18.3158	9.9576	0.0000	9.9576						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	18.3158	1.2660	19.5818	9.9576	1.1647	11.1224						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1432	0.0000	7.1432	3.8835	0.0000	3.8835						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	7.1432	1.2660	8.4092	3.8835	1.1647	5.0482						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	6.3006	0.7749	7.0756	3.3419	0.7129	4.0549						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	4.5436	1.2147	0.0200	0.5839	0.0371	0.6211	0.1601	0.0355	0.1956						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1155	4.5722	1.5568	0.0210	0.7072	0.0378	0.7450	0.1927	0.0361	0.2289						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	2.4573	0.7749	3.2322	1.3034	0.7129	2.0163						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	4.5436	1.2147	0.0200	0.5839	0.0371	0.6211	0.1601	0.0355	0.1956						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1155	4.5722	1.5568	0.0210	0.7072	0.0378	0.7450	0.1927	0.0361	0.2289						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	6.3006	0.7244	7.0251	3.3419	0.6665	4.0084						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	4.5044	1.2313	0.0196	0.5840	0.0374	0.6213	0.1601	0.0357	0.1958						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0418	0.0257	0.3198	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1120	4.5301	1.5511	0.0206	0.7072	0.0380	0.7452	0.1927	0.0363	0.2291						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	2.4573	0.7244	3.1817	1.3034	0.6665	1.9698						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	4.5044	1.2313	0.0196	0.5840	0.0374	0.6213	0.1601	0.0357	0.1958						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0418	0.0257	0.3198	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1120	4.5301	1.5511	0.0206	0.7072	0.0380	0.7452	0.1927	0.0363	0.2291						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0256	1.0205	0.3577	4.6300e-003	0.1558	6.0600e-003	0.1618	0.0448	5.8000e-003	0.0506						
Worker	0.4184	0.2574	3.1975	9.9500e-003	1.2322	6.2900e-003	1.2385	0.3268	5.7900e-003	0.3326						
Total	0.4441	1.2779	3.5552	0.0146	1.3880	0.0124	1.4003	0.3717	0.0116	0.3833						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0256	1.0205	0.3577	4.6300e-003	0.1558	6.0600e-003	0.1618	0.0448	5.8000e-003	0.0506						
Worker	0.4184	0.2574	3.1975	9.9500e-003	1.2322	6.2900e-003	1.2385	0.3268	5.7900e-003	0.3326						
Total	0.4441	1.2779	3.5552	0.0146	1.3880	0.0124	1.4003	0.3717	0.0116	0.3833						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0248	1.0106	0.3518	4.5300e-003	0.1558	6.0400e-003	0.1618	0.0449	5.7800e-003	0.0506						
Worker	0.3949	0.2330	2.9979	9.6100e-003	1.2322	6.0100e-003	1.2382	0.3268	5.5300e-003	0.3324						
Total	0.4197	1.2436	3.3497	0.0141	1.3880	0.0121	1.4000	0.3717	0.0113	0.3830						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0248	1.0106	0.3518	4.5300e-003	0.1558	6.0400e-003	0.1618	0.0449	5.7800e-003	0.0506						
Worker	0.3949	0.2330	2.9979	9.6100e-003	1.2322	6.0100e-003	1.2382	0.3268	5.5300e-003	0.3324						
Total	0.4197	1.2436	3.3497	0.0141	1.3880	0.0121	1.4000	0.3717	0.0113	0.3830						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.3057					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	24.4766	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0790	0.0466	0.5996	1.9200e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						
Total	0.0790	0.0466	0.5996	1.9200e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.3057					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	24.4766	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0790	0.0466	0.5996	1.9200e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						
Total	0.0790	0.0466	0.5996	1.9200e-003	0.2464	1.2000e-003	0.2476	0.0654	1.1100e-003	0.0665						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8528	3.0585	26.0562	0.0530	6.0175	0.0417	6.0592	1.6029	0.0389	1.6418						
Unmitigated	3.0097	3.3241	28.2788	0.0588	6.6861	0.0459	6.7320	1.7810	0.0428	1.8238						

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,112.40	1,112.40	1112.40	3,176,239	2,858,616
General Office Building	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1,112.40	1,112.40	1,112.40	3,176,239	2,858,616

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
User Defined Recreational	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						
NaturalGas Unmitigated	0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4106.48	0.0443	0.3784	0.1610	2.4200e-003		0.0306	0.0306		0.0306	0.0306						
General Office Building	204.141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	4.10648	0.0443	0.3784	0.1610	2.4200e-003		0.0306	0.0306		0.0306	0.0306						
General Office Building	0.204141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		0.0465	0.3985	0.1779	2.5400e-003		0.0321	0.0321		0.0321	0.0321						

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						
Unmitigated	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2863					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.4880					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.5098	0.1956	16.9796	9.0000e-004		0.0942	0.0942		0.0942	0.0942						
Total	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2863					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.4880					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.5098	0.1956	16.9796	9.0000e-004		0.0942	0.0942		0.0942	0.0942						
Total	5.2998	0.3291	17.0364	1.7500e-003		0.1050	0.1050		0.1050	0.1050						

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Palm and Hollister - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Palm and Hollister
San Diego Air Basin, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.70	1000sqft	0.10	3,720.00	0
User Defined Recreational	0.19	User Defined Unit	0.19	0.00	0
Apartments Mid Rise	206.00	Dwelling Unit	5.21	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Max. Buildout = 206 units; Default residential will include parking areas, with rec/leasing center 3720 sqft. Open space and other recreational facilities onsite to add to total project acreage, 5.5 acres graded.

Grading - Added more acreage to site prep phase to account for remedial grading.

Architectural Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Vehicle Trips - From TIA (Michael Baker, 11/2022), 6 daily trips/DU, with 10% transit credit = 5.4 trips/DU. General Office Bldg rec/leasing building: no traffic listed for building in TIA, so trip rate is assumed to be inclusive.

Woodstoves - No hearths listed in Site Plan (Summa, 7/2022), confirmed by KLR. Five gas fireplaces have been included to model the gas-fired BBQ stoves within the rec area, assumed to operate (combined) 468 hrs/yr plus two gas fire tables assumed to operate (combined) 156 hrs/yr.

Area Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - Max. buildout density of 34.85 du/acre.

Mobile Commute Mitigation -

Area Mitigation - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 440 for rec/leasing building).

Water Mitigation -

Waste Mitigation - Recycling and Composting (per state standards - 3 streams - CA is aiming for 75% reduction). Assume minimum of 50% applied.

Stationary Sources - Process Boilers -

Stationary Sources - User Defined -

Construction Phase - As modeled in Jan. 2022, but added more time for site prep. because of remedial grading.

Demolition - Square footage of existing buildings from GE measurements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,860.00	440.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	139,050.00	27,810.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	1860	440
tblAreaCoating	Area_Residential_Exterior	139050	27810
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	85.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	304.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/28/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	7/12/2023	10/27/2023
tblConstructionPhase	PhaseEndDate	8/9/2023	2/28/2024
tblConstructionPhase	PhaseEndDate	6/26/2024	4/30/2025
tblConstructionPhase	PhaseEndDate	7/24/2024	6/30/2025
tblConstructionPhase	PhaseEndDate	8/21/2024	6/30/2025
tblConstructionPhase	PhaseStartDate	6/29/2023	7/3/2023
tblConstructionPhase	PhaseStartDate	7/13/2023	10/30/2023
tblConstructionPhase	PhaseStartDate	8/10/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	6/27/2024	5/1/2025
tblConstructionPhase	PhaseStartDate	7/25/2024	5/1/2025
tblFireplaces	FireplaceDayYear	82.00	180.00
tblFireplaces	FireplaceHourDay	3.00	3.45
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	113.30	7.00
tblFireplaces	NumberNoFireplace	20.60	0.00
tblFireplaces	NumberWood	72.10	0.00
tblGrading	AcresOfGrading	88.00	20.00
tblGrading	AcresOfGrading	127.50	20.00
tblGrading	MaterialImported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	3,700.00	3,720.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	0.00	0.19

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	5.42	5.21
tblVehicleTrips	ST_TR	4.91	5.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	5.40
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	5.40
tblVehicleTrips	WD_TR	9.74	0.00
tblWoodstoves	NumberCatalytic	10.30	0.00
tblWoodstoves	NumberNoncatalytic	10.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1816	1.9149	1.3796	3.2500e-003	0.9508	0.0831	1.0339	0.5056	0.0766	0.5822						
2024	0.2429	2.0667	2.4991	5.6200e-003	0.3044	0.0846	0.3890	0.1163	0.0793	0.1955						
2025	0.6236	0.7998	1.2069	2.3900e-003	0.0661	0.0334	0.0994	0.0177	0.0313	0.0490						
Maximum	0.6236	2.0667	2.4991	5.6200e-003	0.9508	0.0846	1.0339	0.5056	0.0793	0.5822						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1816	1.9149	1.3796	3.2500e-003	0.3849	0.0831	0.4681	0.2010	0.0766	0.2776						
2024	0.2429	2.0667	2.4991	5.6200e-003	0.2179	0.0846	0.3025	0.0720	0.0793	0.1513						
2025	0.6236	0.7998	1.2069	2.3900e-003	0.0661	0.0334	0.0994	0.0177	0.0313	0.0490						
Maximum	0.6236	2.0667	2.4991	5.6200e-003	0.3849	0.0846	0.4681	0.2010	0.0793	0.2776						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.37	0.00	42.85	54.54	0.00	42.20	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2023	8-31-2023	0.9046	0.9046
2	9-1-2023	11-30-2023	0.8943	0.8943
3	12-1-2023	2-29-2024	0.7611	0.7611
4	3-1-2024	5-31-2024	0.5444	0.5444
5	6-1-2024	8-31-2024	0.5433	0.5433
6	9-1-2024	11-30-2024	0.5396	0.5396
7	12-1-2024	2-28-2025	0.5108	0.5108
8	3-1-2025	5-31-2025	0.7273	0.7273
9	6-1-2025	8-31-2025	0.3781	0.3781
		Highest	0.9046	0.9046

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						
Energy	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						
Mobile	0.5378	0.5982	5.0438	0.0108	1.1881	8.3400e-003	1.1965	0.3171	7.7800e-003	0.3249						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	1.4649	0.7006	6.6095	0.0114	1.1881	0.0237	1.2118	0.3171	0.0231	0.3402						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						
Energy	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						
Mobile	0.5096	0.5502	4.6423	9.7100e-003	1.0693	7.5800e-003	1.0769	0.2854	7.0700e-003	0.2925						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	1.4367	0.6525	6.2080	0.0103	1.0693	0.0229	1.0922	0.2854	0.0224	0.3078						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.93	6.86	6.07	9.15	10.00	3.21	9.87	10.00	3.07	9.53	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/30/2023	5	22	
2	Site Preparation	Site Preparation	7/3/2023	10/27/2023	5	85	
3	Grading	Grading	10/30/2023	2/28/2024	5	88	

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	3/1/2024	4/30/2025	5	304
5	Paving	Paving	5/1/2025	6/30/2025	5	43
6	Architectural Coating	Architectural Coating	5/1/2025	6/30/2025	5	43

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 417,150; Residential Outdoor: 27,810; Non-Residential Indoor: 5,580; Non-Residential Outdoor: 440; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating	Air Compressors	1	6.00	78	0.48
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	2.3000e-004	0.0000	2.3000e-004						
Off-Road	0.0250	0.2363	0.2161	4.3000e-004		0.0110	0.0110		0.0102	0.0102						
Total	0.0250	0.2363	0.2161	4.3000e-004	1.4900e-003	0.0110	0.0125	2.3000e-004	0.0102	0.0104						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.5000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.5000e-004	3.1000e-004	3.7600e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004						
Total	4.7000e-004	1.2600e-003	4.0100e-003	1.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	3.8000e-004	2.0000e-005	4.0000e-004						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-004	0.0000	5.8000e-004	9.0000e-005	0.0000	9.0000e-005						
Off-Road	0.0250	0.2363	0.2161	4.3000e-004		0.0110	0.0110		0.0102	0.0102						
Total	0.0250	0.2363	0.2161	4.3000e-004	5.8000e-004	0.0110	0.0116	9.0000e-005	0.0102	0.0103						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.5000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.5000e-004	3.1000e-004	3.7600e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004						
Total	4.7000e-004	1.2600e-003	4.0100e-003	1.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	3.8000e-004	2.0000e-005	4.0000e-004						

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7784	0.0000	0.7784	0.4232	0.0000	0.4232						
Off-Road	0.1130	1.1698	0.7754	1.6200e-003		0.0538	0.0538		0.0495	0.0495						
Total	0.1130	1.1698	0.7754	1.6200e-003	0.7784	0.0538	0.8322	0.4232	0.0495	0.4727						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						
Total	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3036	0.0000	0.3036	0.1651	0.0000	0.1651						
Off-Road	0.1130	1.1698	0.7754	1.6200e-003		0.0538	0.0538		0.0495	0.0495						
Total	0.1130	1.1698	0.7754	1.6200e-003	0.3036	0.0538	0.3574	0.1651	0.0495	0.2146						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						
Total	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1478	0.0000	0.1478	0.0759	0.0000	0.0759						
Off-Road	0.0385	0.4036	0.3319	6.7000e-004		0.0174	0.0174		0.0160	0.0160						
Total	0.0385	0.4036	0.3319	6.7000e-004	0.1478	0.0174	0.1652	0.0759	0.0160	0.0919						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.1020	0.0271	4.5000e-004	0.0129	8.3000e-004	0.0137	3.5300e-003	8.0000e-004	4.3300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	9.1000e-004	6.3000e-004	7.6900e-003	2.0000e-005	2.7100e-003	1.0000e-005	2.7200e-003	7.2000e-004	1.0000e-005	7.3000e-004						
Total	2.5700e-003	0.1026	0.0348	4.7000e-004	0.0156	8.4000e-004	0.0164	4.2500e-003	8.1000e-004	5.0600e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0576	0.0000	0.0576	0.0296	0.0000	0.0296						
Off-Road	0.0385	0.4036	0.3319	6.7000e-004		0.0174	0.0174		0.0160	0.0160						
Total	0.0385	0.4036	0.3319	6.7000e-004	0.0576	0.0174	0.0751	0.0296	0.0160	0.0456						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.1020	0.0271	4.5000e-004	0.0129	8.3000e-004	0.0137	3.5300e-003	8.0000e-004	4.3300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	9.1000e-004	6.3000e-004	7.6900e-003	2.0000e-005	2.7100e-003	1.0000e-005	2.7200e-003	7.2000e-004	1.0000e-005	7.3000e-004						
Total	2.5700e-003	0.1026	0.0348	4.7000e-004	0.0156	8.4000e-004	0.0164	4.2500e-003	8.1000e-004	5.0600e-003						

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1417	0.0000	0.1417	0.0726	0.0000	0.0726						
Off-Road	0.0357	0.3662	0.3173	6.4000e-004		0.0156	0.0156		0.0143	0.0143						
Total	0.0357	0.3662	0.3173	6.4000e-004	0.1417	0.0156	0.1573	0.0726	0.0143	0.0869						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0966	0.0263	4.2000e-004	0.0123	8.0000e-004	0.0131	3.3800e-003	7.7000e-004	4.1500e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	8.2000e-004	5.4000e-004	6.8700e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	2.3900e-003	0.0971	0.0332	4.4000e-004	0.0149	8.1000e-004	0.0157	4.0700e-003	7.8000e-004	4.8500e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0553	0.0000	0.0553	0.0283	0.0000	0.0283						
Off-Road	0.0357	0.3662	0.3173	6.4000e-004		0.0156	0.0156		0.0143	0.0143						
Total	0.0357	0.3662	0.3173	6.4000e-004	0.0553	0.0156	0.0709	0.0283	0.0143	0.0426						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0966	0.0263	4.2000e-004	0.0123	8.0000e-004	0.0131	3.3800e-003	7.7000e-004	4.1500e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	8.2000e-004	5.4000e-004	6.8700e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	2.3900e-003	0.0971	0.0332	4.4000e-004	0.0149	8.1000e-004	0.0157	4.0700e-003	7.8000e-004	4.8500e-003						

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						
Total	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.8300e-003	0.1105	0.0384	5.0000e-004	0.0167	6.6000e-004	0.0173	4.8100e-003	6.3000e-004	5.4400e-003						
Worker	0.0415	0.0275	0.3481	1.0900e-003	0.1311	6.9000e-004	0.1318	0.0348	6.3000e-004	0.0355						
Total	0.0444	0.1381	0.3865	1.5900e-003	0.1478	1.3500e-003	0.1491	0.0397	1.2600e-003	0.0409						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						
Total	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.8300e-003	0.1105	0.0384	5.0000e-004	0.0167	6.6000e-004	0.0173	4.8100e-003	6.3000e-004	5.4400e-003						
Worker	0.0415	0.0275	0.3481	1.0900e-003	0.1311	6.9000e-004	0.1318	0.0348	6.3000e-004	0.0355						
Total	0.0444	0.1381	0.3865	1.5900e-003	0.1478	1.3500e-003	0.1491	0.0397	1.2600e-003	0.0409						

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						
Total	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	1.0800e-003	0.0432	0.0149	1.9000e-004	6.5700e-003	2.6000e-004	6.8300e-003	1.9000e-003	2.5000e-004	2.1400e-003						
Worker	0.0154	9.8200e-003	0.1287	4.2000e-004	0.0517	2.6000e-004	0.0520	0.0137	2.4000e-004	0.0140						
Total	0.0165	0.0530	0.1436	6.1000e-004	0.0583	5.2000e-004	0.0588	0.0156	4.9000e-004	0.0161						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						
Total	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	1.0800e-003	0.0432	0.0149	1.9000e-004	6.5700e-003	2.6000e-004	6.8300e-003	1.9000e-003	2.5000e-004	2.1400e-003						
Worker	0.0154	9.8200e-003	0.1287	4.2000e-004	0.0517	2.6000e-004	0.0520	0.0137	2.4000e-004	0.0140						
Total	0.0165	0.0530	0.1436	6.1000e-004	0.0583	5.2000e-004	0.0588	0.0156	4.9000e-004	0.0161						

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5226					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						
Total	0.5262	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						
Total	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5226					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						
Total	0.5262	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						
Total	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5096	0.5502	4.6423	9.7100e-003	1.0693	7.5800e-003	1.0769	0.2854	7.0700e-003	0.2925						
Unmitigated	0.5378	0.5982	5.0438	0.0108	1.1881	8.3400e-003	1.1965	0.3171	7.7800e-003	0.3249						

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,112.40	1,112.40	1112.40	3,176,239	2,858,616
General Office Building	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1,112.40	1,112.40	1,112.40	3,176,239	2,858,616

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Recreational	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						
NaturalGas Unmitigated	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
Apartments Mid Rise	1.49887e+006	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003							
General Office Building	74511.6	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004							
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000							
Total		8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003							

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
Apartments Mid Rise	1.49887e+006	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003							
General Office Building	74511.6	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004							
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000							
Total		8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003							

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	791069				
General Office Building	48136.8				
User Defined Recreational	0				
Total					

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	791069				
General Office Building	48136.8				
User Defined Recreational	0				
Total					

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						
Unmitigated	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0523					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.8191					0.0000	0.0000		0.0000	0.0000						
Hearth	1.4100e-003	0.0120	5.1100e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004						
Landscaping	0.0459	0.0176	1.5282	8.0000e-005		8.4800e-003	8.4800e-003		8.4800e-003	8.4800e-003						
Total	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0523					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.8191					0.0000	0.0000		0.0000	0.0000						
Hearth	1.4100e-003	0.0120	5.1100e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004						
Landscaping	0.0459	0.0176	1.5282	8.0000e-005		8.4800e-003	8.4800e-003		8.4800e-003	8.4800e-003						
Total	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.4217 / 8.46152				
General Office Building	0.657615 / 0.403054				
User Defined Recreational	0 / 0				
Total					

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	10.7374 / 7.94537				
General Office Building	0.526092 / 0.378468				
User Defined Recreational	0 / 0				
Total					

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	94.76				
General Office Building	3.44				
User Defined Recreational	0				
Total					

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	47.38				
General Office Building	1.72				
User Defined Recreational	0				
Total					

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

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APPENDIX A-2

**CALEEMOD ANNUAL AND DAILY OUTPUT FILES
PARTIAL BUILDOUT SCENARIO**

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Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Palm and Hollister As Proposed

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.70	1000sqft	0.10	3,720.00	0
User Defined Recreational	0.19	User Defined Unit	0.19	0.00	0
Apartments Mid Rise	198.00	Dwelling Unit	5.21	198,000.00	566

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13	Operational Year	2025		
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	539.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Proposed Project = 198 units; Default residential will include parking areas, with rec/leasing center 3720 sqft. Open space and other recreational facilities onsite to add to total project acreage, 5.5 acres graded.

Construction Phase - As modeled in Jan. 2022, but added more time for site prep. because of remedial grading.

Demolition - Square footage of existing buildings from GE measurements.

Grading - Added more acreage to site prep phase to account for remedial grading.

Architectural Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking) per SDACPD Rule 67.0.1. Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 372 for rec/leasing building).

Vehicle Trips - From TIA (Michael Baker, 11/2022), 6 daily trips/DU, with 10% transit credit = 5.4 trips/DU. General Office Bldg rec/leasing building: no traffic listed for building in TIA, so trip rate is assumed to be inclusive.

Woodstoves - No hearths listed in Site Plan (Summa, 7/2022), confirmed by KLR. Five gas fireplaces have been included to model the gas-fired BBQ stoves within the rec. areas, assumed to operate (combined) 468 hrs/yr plus two gas fire tables assumed to operate (combined) 156 hrs/yr.

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Coating - Use low VOC paint (50 g/L residential and non-residential, 100 g/L parking) per SDACPD Rule 67.0.1. Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 372 for rec/leasing building).

Mobile Land Use Mitigation -

Area Mitigation - Use low VOC paint (50 g/L residential and non-residential, 100 g/L parking) per SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,860.00	372.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	133,650.00	26,730.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	1860	372
tblAreaCoating	Area_Residential_Exterior	133650	26730
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	85.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	304.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/28/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	7/12/2023	10/27/2023
tblConstructionPhase	PhaseEndDate	8/9/2023	2/28/2024

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	6/26/2024	4/30/2025
tblConstructionPhase	PhaseEndDate	7/24/2024	6/30/2025
tblConstructionPhase	PhaseEndDate	8/21/2024	6/30/2025
tblConstructionPhase	PhaseStartDate	6/29/2023	7/3/2023
tblConstructionPhase	PhaseStartDate	7/13/2023	10/30/2023
tblConstructionPhase	PhaseStartDate	8/10/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	6/27/2024	5/1/2025
tblConstructionPhase	PhaseStartDate	7/25/2024	5/1/2025
tblFireplaces	FireplaceDayYear	82.00	180.00
tblFireplaces	FireplaceHourDay	3.00	3.45
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	108.90	7.00
tblFireplaces	NumberNoFireplace	19.80	0.00
tblFireplaces	NumberWood	69.30	0.00
tblGrading	AcresOfGrading	88.00	20.00
tblGrading	AcresOfGrading	127.50	20.00
tblGrading	MaterialImported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	3,700.00	3,720.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	0.00	0.19
tblVehicleTrips	ST_TR	4.91	5.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	5.40
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	5.40
tblVehicleTrips	WD_TR	9.74	0.00
tblWoodstoves	NumberCatalytic	9.90	0.00
tblWoodstoves	NumberNoncatalytic	9.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
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2.0 Emissions Summary

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7086	27.5547	20.0262	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						
2024	1.8664	21.3833	19.7228	0.0503	7.0078	0.7623	7.7701	3.5347	0.7027	4.2374						
2025	24.5631	13.5960	19.4292	0.0411	1.3319	0.5391	1.8710	0.3567	0.5071	0.8637						
Maximum	24.5631	27.5547	20.0262	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7086	27.5547	20.0262	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						
2024	1.8664	21.3833	19.7228	0.0503	3.1644	0.7623	3.9268	1.4961	0.7027	2.1988						
2025	24.5631	13.5960	19.4292	0.0411	1.3319	0.5391	1.8710	0.3567	0.5071	0.8637						
Maximum	24.5631	27.5547	20.0262	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						
Energy	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						
Mobile	2.9627	2.9495	26.4859	0.0591	6.4265	0.0441	6.4706	1.7119	0.0411	1.7530						
Total	8.1053	3.6548	43.0345	0.0632	6.4265	0.1764	6.6028	1.7119	0.1734	1.8853						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						
Energy	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						
Mobile	2.8163	2.7125	24.2939	0.0533	5.7838	0.0401	5.8239	1.5407	0.0374	1.5781						
Total	7.9588	3.4178	40.8425	0.0574	5.7838	0.1724	5.9562	1.5407	0.1697	1.7103						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.81	6.48	5.09	9.13	10.00	2.27	9.79	10.00	2.16	9.28	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/30/2023	5	22	
2	Site Preparation	Site Preparation	7/3/2023	10/27/2023	5	85	
3	Grading	Grading	10/30/2023	2/28/2024	5	88	
4	Building Construction	Building Construction	3/1/2024	4/30/2025	5	304	
5	Paving	Paving	5/1/2025	6/30/2025	5	43	
6	Architectural Coating	Architectural Coating	5/1/2025	6/30/2025	5	43	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 400,950; Residential Outdoor: 26,730; Non-Residential Indoor: 5,580; Non-Residential Outdoor: 372; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	144.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1359	0.0000	0.1359	0.0206	0.0000	0.0206						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.1359	0.9975	1.1334	0.0206	0.9280	0.9486						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4400e-003	0.0833	0.0229	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0424	0.1087	0.3829	1.4700e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	8.0300e-003	0.0000	8.0300e-003						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.0530	0.9975	1.0505	8.0300e-003	0.9280	0.9360						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4400e-003	0.0833	0.0229	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0424	0.1087	0.3829	1.4700e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.3158	0.0000	18.3158	9.9576	0.0000	9.9576						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	18.3158	1.2660	19.5818	9.9576	1.1647	11.1224						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1432	0.0000	7.1432	3.8835	0.0000	3.8835						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	7.1432	1.2660	8.4092	3.8835	1.1647	5.0482						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0492	0.0306	0.4320	1.3100e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	6.3006	0.7749	7.0756	3.3419	0.7129	4.0549						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0756	4.3674	1.1997	0.0200	0.5839	0.0371	0.6210	0.1601	0.0355	0.1955						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1166	4.3929	1.5597	0.0211	0.7072	0.0377	0.7449	0.1927	0.0361	0.2288						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	2.4573	0.7749	3.2322	1.3034	0.7129	2.0163						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0756	4.3674	1.1997	0.0200	0.5839	0.0371	0.6210	0.1601	0.0355	0.1955						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0410	0.0255	0.3600	1.0900e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1166	4.3929	1.5597	0.0211	0.7072	0.0377	0.7449	0.1927	0.0361	0.2288						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	6.3006	0.7244	7.0251	3.3419	0.6665	4.0084						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0747	4.3294	1.2163	0.0196	0.5840	0.0373	0.6212	0.1601	0.0357	0.1957						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0385	0.0229	0.3358	1.0500e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1132	4.3523	1.5522	0.0206	0.7072	0.0379	0.7451	0.1927	0.0363	0.2290						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	2.4573	0.7244	3.1817	1.3034	0.6665	1.9698						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0747	4.3294	1.2163	0.0196	0.5840	0.0373	0.6212	0.1601	0.0357	0.1957						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0385	0.0229	0.3358	1.0500e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1132	4.3523	1.5522	0.0206	0.7072	0.0379	0.7451	0.1927	0.0363	0.2290						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0253	0.9367	0.3319	4.4200e-003	0.1490	5.7700e-003	0.1548	0.0429	5.5200e-003	0.0484						
Worker	0.3695	0.2197	3.2240	0.0101	1.1829	6.0400e-003	1.1890	0.3138	5.5600e-003	0.3193						
Total	0.3948	1.1564	3.5559	0.0145	1.3319	0.0118	1.3437	0.3567	0.0111	0.3677						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0253	0.9367	0.3319	4.4200e-003	0.1490	5.7700e-003	0.1548	0.0429	5.5200e-003	0.0484						
Worker	0.3695	0.2197	3.2240	0.0101	1.1829	6.0400e-003	1.1890	0.3138	5.5600e-003	0.3193						
Total	0.3948	1.1564	3.5559	0.0145	1.3319	0.0118	1.3437	0.3567	0.0111	0.3677						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0245	0.9274	0.3264	4.3300e-003	0.1490	5.7600e-003	0.1548	0.0429	5.5100e-003	0.0484						
Worker	0.3480	0.1989	3.0182	9.7600e-003	1.1829	5.7700e-003	1.1887	0.3138	5.3100e-003	0.3191						
Total	0.3725	1.1263	3.3445	0.0141	1.3319	0.0115	1.3435	0.3567	0.0108	0.3675						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0245	0.9274	0.3264	4.3300e-003	0.1490	5.7600e-003	0.1548	0.0429	5.5100e-003	0.0484						
Worker	0.3480	0.1989	3.0182	9.7600e-003	1.1829	5.7700e-003	1.1887	0.3138	5.3100e-003	0.3191						
Total	0.3725	1.1263	3.3445	0.0141	1.3319	0.0115	1.3435	0.3567	0.0108	0.3675						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0363	0.0207	0.3144	1.0200e-003	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	23.3708					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	23.5416	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0701	0.0401	0.6078	1.9700e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						
Total	0.0701	0.0401	0.6078	1.9700e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	23.3708					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	23.5416	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0701	0.0401	0.6078	1.9700e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						
Total	0.0701	0.0401	0.6078	1.9700e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8163	2.7125	24.2939	0.0533	5.7838	0.0401	5.8239	1.5407	0.0374	1.5781						
Unmitigated	2.9627	2.9495	26.4859	0.0591	6.4265	0.0441	6.4706	1.7119	0.0411	1.7530						

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,069.20	1,069.20	1069.20	3,052,890	2,747,601
General Office Building	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1,069.20	1,069.20	1,069.20	3,052,890	2,747,601

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
User Defined Recreational	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						
NaturalGas Unmitigated	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3947.01	0.0426	0.3637	0.1548	2.3200e-003		0.0294	0.0294		0.0294	0.0294						
General Office Building	204.141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.94701	0.0426	0.3637	0.1548	2.3200e-003		0.0294	0.0294		0.0294	0.0294						
General Office Building	0.204141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						
Unmitigated	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2753					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.3168					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.4900	0.1880	16.3202	8.6000e-004		0.0906	0.0906		0.0906	0.0906						
Total	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2753					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.3168					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.4900	0.1880	16.3202	8.6000e-004		0.0906	0.0906		0.0906	0.0906						
Total	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Palm and Hollister As Proposed - San Diego Air Basin, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Palm and Hollister As Proposed
San Diego Air Basin, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.70	1000sqft	0.10	3,720.00	0
User Defined Recreational	0.19	User Defined Unit	0.19	0.00	0
Apartments Mid Rise	198.00	Dwelling Unit	5.21	198,000.00	566

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	539.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Proposed Project = 198 units; Default residential will include parking areas, with rec/leasing center 3720 sqft. Open space and other recreational facilities onsite to add to total project acreage, 5.5 acres graded.

Construction Phase - As modeled in Jan. 2022, but added more time for site prep. because of remedial grading.

Demolition - Square footage of existing buildings from GE measurements.

Grading - Added more acreage to site prep phase to account for remedial grading.

Architectural Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking) per SDACPD Rule 67.0.1. Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 372 for rec/leasing building).

Vehicle Trips - From TIA (Michael Baker, 11/2022), 6 daily trips/DU, with 10% transit credit = 5.4 trips/DU. General Office Bldg rec/leasing building: no traffic listed for building in TIA, so trip rate is assumed to be inclusive.

Woodstoves - No hearths listed in Site Plan (Summa, 7/2022), confirmed by KLR. Five gas fireplaces have been included to model the gas-fired BBQ stoves within the rec. areas, assumed to operate (combined) 468 hrs/yr plus two gas fire tables assumed to operate (combined) 156 hrs/yr.

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Coating - Use low VOC paint (50 g/L residential and non-residential, 100 g/L parking) per SDACPD Rule 67.0.1. Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 372 for rec/leasing building).

Mobile Land Use Mitigation -

Area Mitigation - Use low VOC paint (50 g/L residential and non-residential, 100 g/L parking) per SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,860.00	372.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	133,650.00	26,730.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	1860	372
tblAreaCoating	Area_Residential_Exterior	133650	26730
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	85.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	304.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/28/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	7/12/2023	10/27/2023
tblConstructionPhase	PhaseEndDate	8/9/2023	2/28/2024

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	6/26/2024	4/30/2025
tblConstructionPhase	PhaseEndDate	7/24/2024	6/30/2025
tblConstructionPhase	PhaseEndDate	8/21/2024	6/30/2025
tblConstructionPhase	PhaseStartDate	6/29/2023	7/3/2023
tblConstructionPhase	PhaseStartDate	7/13/2023	10/30/2023
tblConstructionPhase	PhaseStartDate	8/10/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	6/27/2024	5/1/2025
tblConstructionPhase	PhaseStartDate	7/25/2024	5/1/2025
tblFireplaces	FireplaceDayYear	82.00	180.00
tblFireplaces	FireplaceHourDay	3.00	3.45
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	108.90	7.00
tblFireplaces	NumberNoFireplace	19.80	0.00
tblFireplaces	NumberWood	69.30	0.00
tblGrading	AcresOfGrading	88.00	20.00
tblGrading	AcresOfGrading	127.50	20.00
tblGrading	MaterialImported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	3,700.00	3,720.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	0.00	0.19
tblVehicleTrips	ST_TR	4.91	5.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	5.40
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	5.40
tblVehicleTrips	WD_TR	9.74	0.00
tblWoodstoves	NumberCatalytic	9.90	0.00
tblWoodstoves	NumberNoncatalytic	9.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
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2.0 Emissions Summary

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7128	27.5585	20.0086	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						
2024	1.8978	21.5611	19.5785	0.0503	7.0078	0.7624	7.7702	3.5347	0.7028	4.2375						
2025	24.5726	13.6600	19.2992	0.0405	1.3319	0.5391	1.8710	0.3567	0.5071	0.8638						
Maximum	24.5726	27.5585	20.0086	0.0507	18.4637	1.2668	19.7305	9.9969	1.1655	11.1623						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.7128	27.5585	20.0086	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						
2024	1.8978	21.5611	19.5785	0.0503	3.1644	0.7624	3.9268	1.4961	0.7028	2.1989						
2025	24.5726	13.6600	19.2992	0.0405	1.3319	0.5391	1.8710	0.3567	0.5071	0.8638						
Maximum	24.5726	27.5585	20.0086	0.0507	7.2910	1.2668	8.5578	3.9227	1.1655	5.0882						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						
Energy	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						
Mobile	2.8928	3.1950	27.1806	0.0565	6.4265	0.0441	6.4706	1.7119	0.0411	1.7530						
Total	8.0354	3.9003	43.7292	0.0606	6.4265	0.1764	6.6029	1.7119	0.1734	1.8853						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						
Energy	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						
Mobile	2.7420	2.9397	25.0443	0.0510	5.7838	0.0401	5.8239	1.5407	0.0374	1.5781						
Total	7.8846	3.6450	41.5929	0.0551	5.7838	0.1724	5.9562	1.5407	0.1697	1.7104						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.88	6.55	4.89	9.07	10.00	2.27	9.79	10.00	2.16	9.28	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/30/2023	5	22	
2	Site Preparation	Site Preparation	7/3/2023	10/27/2023	5	85	
3	Grading	Grading	10/30/2023	2/28/2024	5	88	
4	Building Construction	Building Construction	3/1/2024	4/30/2025	5	304	
5	Paving	Paving	5/1/2025	6/30/2025	5	43	
6	Architectural Coating	Architectural Coating	5/1/2025	6/30/2025	5	43	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 400,950; Residential Outdoor: 26,730; Non-Residential Indoor: 5,580; Non-Residential Outdoor: 372; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	144.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1359	0.0000	0.1359	0.0206	0.0000	0.0206						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.1359	0.9975	1.1334	0.0206	0.9280	0.9486						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3500e-003	0.0866	0.0232	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0458	0.1152	0.3652	1.4100e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	8.0300e-003	0.0000	8.0300e-003						
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280						
Total	2.2691	21.4844	19.6434	0.0388	0.0530	0.9975	1.0505	8.0300e-003	0.9280	0.9360						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3500e-003	0.0866	0.0232	3.8000e-004	0.0111	7.1000e-004	0.0118	3.0500e-003	6.8000e-004	3.7300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.0458	0.1152	0.3652	1.4100e-003	0.1344	1.3700e-003	0.1357	0.0357	1.2900e-003	0.0370						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.3158	0.0000	18.3158	9.9576	0.0000	9.9576						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	18.3158	1.2660	19.5818	9.9576	1.1647	11.1224						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1432	0.0000	7.1432	3.8835	0.0000	3.8835						
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647						
Total	2.6595	27.5242	18.2443	0.0381	7.1432	1.2660	8.4092	3.8835	1.1647	5.0482						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						
Total	0.0533	0.0344	0.4105	1.2300e-003	0.1479	7.9000e-004	0.1487	0.0392	7.3000e-004	0.0400						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	6.3006	0.7749	7.0756	3.3419	0.7129	4.0549						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	4.5436	1.2147	0.0200	0.5839	0.0371	0.6211	0.1601	0.0355	0.1956						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1155	4.5722	1.5568	0.0210	0.7072	0.0378	0.7450	0.1927	0.0361	0.2289						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129						
Total	1.7109	17.9359	14.7507	0.0297	2.4573	0.7749	3.2322	1.3034	0.7129	2.0163						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	4.5436	1.2147	0.0200	0.5839	0.0371	0.6211	0.1601	0.0355	0.1956						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0445	0.0286	0.3421	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333						
Total	0.1155	4.5722	1.5568	0.0210	0.7072	0.0378	0.7450	0.1927	0.0361	0.2289						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3006	0.0000	6.3006	3.3419	0.0000	3.3419						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	6.3006	0.7244	7.0251	3.3419	0.6665	4.0084						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	4.5044	1.2313	0.0196	0.5840	0.0374	0.6213	0.1601	0.0357	0.1958						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0418	0.0257	0.3198	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1120	4.5301	1.5511	0.0206	0.7072	0.0380	0.7452	0.1927	0.0363	0.2291						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4573	0.0000	2.4573	1.3034	0.0000	1.3034						
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665						
Total	1.6617	17.0310	14.7594	0.0297	2.4573	0.7244	3.1817	1.3034	0.6665	1.9698						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	4.5044	1.2313	0.0196	0.5840	0.0374	0.6213	0.1601	0.0357	0.1958						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0418	0.0257	0.3198	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333						
Total	0.1120	4.5301	1.5511	0.0206	0.7072	0.0380	0.7452	0.1927	0.0363	0.2291						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0245	0.9762	0.3421	4.4300e-003	0.1490	5.8000e-003	0.1548	0.0429	5.5500e-003	0.0484						
Worker	0.4017	0.2471	3.0696	9.5500e-003	1.1829	6.0400e-003	1.1890	0.3138	5.5600e-003	0.3193						
Total	0.4262	1.2233	3.4117	0.0140	1.3319	0.0118	1.3438	0.3567	0.0111	0.3678						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0245	0.9762	0.3421	4.4300e-003	0.1490	5.8000e-003	0.1548	0.0429	5.5500e-003	0.0484						
Worker	0.4017	0.2471	3.0696	9.5500e-003	1.1829	6.0400e-003	1.1890	0.3138	5.5600e-003	0.3193						
Total	0.4262	1.2233	3.4117	0.0140	1.3319	0.0118	1.3438	0.3567	0.0111	0.3678						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0237	0.9667	0.3365	4.3400e-003	0.1490	5.7800e-003	0.1548	0.0429	5.5300e-003	0.0484						
Worker	0.3791	0.2236	2.8780	9.2300e-003	1.1829	5.7700e-003	1.1887	0.3138	5.3100e-003	0.3191						
Total	0.4028	1.1903	3.2145	0.0136	1.3319	0.0116	1.3435	0.3567	0.0108	0.3675						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0237	0.9667	0.3365	4.3400e-003	0.1490	5.7800e-003	0.1548	0.0429	5.5300e-003	0.0484						
Worker	0.3791	0.2236	2.8780	9.2300e-003	1.1829	5.7700e-003	1.1887	0.3138	5.3100e-003	0.3191						
Total	0.4028	1.1903	3.2145	0.0136	1.3319	0.0116	1.3435	0.3567	0.0108	0.3675						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						
Total	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	23.3708					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	23.5416	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0764	0.0450	0.5796	1.8600e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						
Total	0.0764	0.0450	0.5796	1.8600e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	23.3708					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						
Total	23.5416	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0764	0.0450	0.5796	1.8600e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						
Total	0.0764	0.0450	0.5796	1.8600e-003	0.2382	1.1600e-003	0.2394	0.0632	1.0700e-003	0.0643						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7420	2.9397	25.0443	0.0510	5.7838	0.0401	5.8239	1.5407	0.0374	1.5781						
Unmitigated	2.8928	3.1950	27.1806	0.0565	6.4265	0.0441	6.4706	1.7119	0.0411	1.7530						

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,069.20	1,069.20	1069.20	3,052,890	2,747,601
General Office Building	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1,069.20	1,069.20	1,069.20	3,052,890	2,747,601

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
User Defined Recreational	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						
NaturalGas Unmitigated	0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3947.01	0.0426	0.3637	0.1548	2.3200e-003		0.0294	0.0294		0.0294	0.0294						
General Office Building	204.141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.94701	0.0426	0.3637	0.1548	2.3200e-003		0.0294	0.0294		0.0294	0.0294						
General Office Building	0.204141	2.2000e-003	0.0200	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		0.0448	0.3838	0.1716	2.4400e-003		0.0309	0.0309		0.0309	0.0309						

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						
Unmitigated	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2753					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.3168					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.4900	0.1880	16.3202	8.6000e-004		0.0906	0.0906		0.0906	0.0906						
Total	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2753					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.3168					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0156	0.1335	0.0568	8.5000e-004		0.0108	0.0108		0.0108	0.0108						
Landscaping	0.4900	0.1880	16.3202	8.6000e-004		0.0906	0.0906		0.0906	0.0906						
Total	5.0978	0.3215	16.3770	1.7100e-003		0.1014	0.1014		0.1014	0.1014						

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Palm and Hollister As Proposed - San Diego Air Basin, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Palm and Hollister As Proposed

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.70	1000sqft	0.10	3,720.00	0
User Defined Recreational	0.19	User Defined Unit	0.19	0.00	0
Apartments Mid Rise	198.00	Dwelling Unit	5.21	198,000.00	566

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	539.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Proposed Project = 198 units; Default residential will include parking areas, with rec/leasing center 3720 sqft. Open space and other recreational facilities onsite to add to total project acreage, 5.5 acres graded.

Construction Phase - As modeled in Jan. 2022, but added more time for site prep. because of remedial grading.

Demolition - Square footage of existing buildings from GE measurements.

Grading - Added more acreage to site prep phase to account for remedial grading.

Architectural Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking) per SDACPD Rule 67.0.1. Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 372 for rec/leasing building).

Vehicle Trips - From TIA (Michael Baker, 11/2022), 6 daily trips/DU, with 10% transit credit = 5.4 trips/DU. General Office Bldg rec/leasing building: no traffic listed for building in TIA, so trip rate is assumed to be inclusive.

Woodstoves - No hearths listed in Site Plan (Summa, 7/2022), confirmed by KLR. Five gas fireplaces have been included to model the gas-fired BBQ stoves within the rec. areas, assumed to operate (combined) 468 hrs/yr plus two gas fire tables assumed to operate (combined) 156 hrs/yr.

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area Coating - Use low VOC paint (50 g/L residential and non-residential, 100 g/L parking) per SDACPD Rule 67.0.1. Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 372 for rec/leasing building).

Mobile Land Use Mitigation -

Area Mitigation - Use low VOC paint (50 g/L residential and non-residential, 100 g/L parking) per SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,860.00	372.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	133,650.00	26,730.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	1860	372
tblAreaCoating	Area_Residential_Exterior	133650	26730
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	85.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	304.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/28/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	7/12/2023	10/27/2023
tblConstructionPhase	PhaseEndDate	8/9/2023	2/28/2024

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	6/26/2024	4/30/2025
tblConstructionPhase	PhaseEndDate	7/24/2024	6/30/2025
tblConstructionPhase	PhaseEndDate	8/21/2024	6/30/2025
tblConstructionPhase	PhaseStartDate	6/29/2023	7/3/2023
tblConstructionPhase	PhaseStartDate	7/13/2023	10/30/2023
tblConstructionPhase	PhaseStartDate	8/10/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	6/27/2024	5/1/2025
tblConstructionPhase	PhaseStartDate	7/25/2024	5/1/2025
tblFireplaces	FireplaceDayYear	82.00	180.00
tblFireplaces	FireplaceHourDay	3.00	3.45
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	108.90	7.00
tblFireplaces	NumberNoFireplace	19.80	0.00
tblFireplaces	NumberWood	69.30	0.00
tblGrading	AcresOfGrading	88.00	20.00
tblGrading	AcresOfGrading	127.50	20.00
tblGrading	MaterialImported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	3,700.00	3,720.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	0.00	0.19
tblVehicleTrips	ST_TR	4.91	5.40
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	5.40
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	5.40
tblVehicleTrips	WD_TR	9.74	0.00
tblWoodstoves	NumberCatalytic	9.90	0.00
tblWoodstoves	NumberNoncatalytic	9.90	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
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2.0 Emissions Summary

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1816	1.9149	1.3796	3.2500e-003	0.9508	0.0831	1.0339	0.5056	0.0766	0.5822						
2024	0.2411	2.0608	2.4835	5.5500e-003	0.2984	0.0845	0.3829	0.1147	0.0792	0.1939						
2025	0.6027	0.7975	1.2006	2.3600e-003	0.0635	0.0333	0.0969	0.0170	0.0312	0.0483						
Maximum	0.6027	2.0608	2.4835	5.5500e-003	0.9508	0.0845	1.0339	0.5056	0.0792	0.5822						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1816	1.9149	1.3796	3.2500e-003	0.3849	0.0831	0.4681	0.2010	0.0766	0.2776						
2024	0.2411	2.0608	2.4835	5.5500e-003	0.2120	0.0845	0.2965	0.0704	0.0792	0.1496						
2025	0.6027	0.7975	1.2006	2.3600e-003	0.0635	0.0333	0.0969	0.0170	0.0312	0.0483						
Maximum	0.6027	2.0608	2.4835	5.5500e-003	0.3849	0.0845	0.4681	0.2010	0.0792	0.2776						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.69	0.00	43.09	54.74	0.01	42.32	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2023	8-31-2023	0.9046	0.9046
2	9-1-2023	11-30-2023	0.8943	0.8943
3	12-1-2023	2-29-2024	0.7611	0.7611
4	3-1-2024	5-31-2024	0.5421	0.5421
5	6-1-2024	8-31-2024	0.5410	0.5410
6	9-1-2024	11-30-2024	0.5373	0.5373
7	12-1-2024	2-28-2025	0.5085	0.5085
8	3-1-2025	5-31-2025	0.7155	0.7155
9	6-1-2025	8-31-2025	0.3680	0.3680
		Highest	0.9046	0.9046

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8836	0.0289	1.4739	1.5000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003						
Energy	8.1700e-003	0.0700	0.0313	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003						
Mobile	0.5170	0.5750	4.8479	0.0103	1.1420	8.0100e-003	1.1500	0.3048	7.4800e-003	0.3123						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	1.4087	0.6740	6.3532	0.0109	1.1420	0.0228	1.1648	0.3048	0.0222	0.3270						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8836	0.0289	1.4739	1.5000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003						
Energy	8.1700e-003	0.0700	0.0313	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003						
Mobile	0.4898	0.5288	4.4620	9.3300e-003	1.0278	7.2900e-003	1.0351	0.2743	6.7900e-003	0.2811						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	1.3815	0.6278	5.9673	9.9300e-003	1.0278	0.0221	1.0498	0.2743	0.0216	0.2959						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.93	6.85	6.07	9.23	10.00	3.16	9.87	10.00	3.10	9.53	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/30/2023	5	22	
2	Site Preparation	Site Preparation	7/3/2023	10/27/2023	5	85	
3	Grading	Grading	10/30/2023	2/28/2024	5	88	

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	3/1/2024	4/30/2025	5	304
5	Paving	Paving	5/1/2025	6/30/2025	5	43
6	Architectural Coating	Architectural Coating	5/1/2025	6/30/2025	5	43

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 400,950; Residential Outdoor: 26,730; Non-Residential Indoor: 5,580; Non-Residential Outdoor: 372; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating	Air Compressors	1	6.00	78	0.48
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	144.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	2.3000e-004	0.0000	2.3000e-004						
Off-Road	0.0250	0.2363	0.2161	4.3000e-004		0.0110	0.0110		0.0102	0.0102						
Total	0.0250	0.2363	0.2161	4.3000e-004	1.4900e-003	0.0110	0.0125	2.3000e-004	0.0102	0.0104						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.5000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.5000e-004	3.1000e-004	3.7600e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004						
Total	4.7000e-004	1.2600e-003	4.0100e-003	1.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	3.8000e-004	2.0000e-005	4.0000e-004						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-004	0.0000	5.8000e-004	9.0000e-005	0.0000	9.0000e-005						
Off-Road	0.0250	0.2363	0.2161	4.3000e-004		0.0110	0.0110		0.0102	0.0102						
Total	0.0250	0.2363	0.2161	4.3000e-004	5.8000e-004	0.0110	0.0116	9.0000e-005	0.0102	0.0103						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.5000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.5000e-004	3.1000e-004	3.7600e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004						
Total	4.7000e-004	1.2600e-003	4.0100e-003	1.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	3.8000e-004	2.0000e-005	4.0000e-004						

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7784	0.0000	0.7784	0.4232	0.0000	0.4232						
Off-Road	0.1130	1.1698	0.7754	1.6200e-003		0.0538	0.0538		0.0495	0.0495						
Total	0.1130	1.1698	0.7754	1.6200e-003	0.7784	0.0538	0.8322	0.4232	0.0495	0.4727						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						
Total	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3036	0.0000	0.3036	0.1651	0.0000	0.1651						
Off-Road	0.1130	1.1698	0.7754	1.6200e-003		0.0538	0.0538		0.0495	0.0495						
Total	0.1130	1.1698	0.7754	1.6200e-003	0.3036	0.0538	0.3574	0.1651	0.0495	0.2146						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						
Total	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1478	0.0000	0.1478	0.0759	0.0000	0.0759						
Off-Road	0.0385	0.4036	0.3319	6.7000e-004		0.0174	0.0174		0.0160	0.0160						
Total	0.0385	0.4036	0.3319	6.7000e-004	0.1478	0.0174	0.1652	0.0759	0.0160	0.0919						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.1020	0.0271	4.5000e-004	0.0129	8.3000e-004	0.0137	3.5300e-003	8.0000e-004	4.3300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	9.1000e-004	6.3000e-004	7.6900e-003	2.0000e-005	2.7100e-003	1.0000e-005	2.7200e-003	7.2000e-004	1.0000e-005	7.3000e-004						
Total	2.5700e-003	0.1026	0.0348	4.7000e-004	0.0156	8.4000e-004	0.0164	4.2500e-003	8.1000e-004	5.0600e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0576	0.0000	0.0576	0.0296	0.0000	0.0296						
Off-Road	0.0385	0.4036	0.3319	6.7000e-004		0.0174	0.0174		0.0160	0.0160						
Total	0.0385	0.4036	0.3319	6.7000e-004	0.0576	0.0174	0.0751	0.0296	0.0160	0.0456						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.1020	0.0271	4.5000e-004	0.0129	8.3000e-004	0.0137	3.5300e-003	8.0000e-004	4.3300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	9.1000e-004	6.3000e-004	7.6900e-003	2.0000e-005	2.7100e-003	1.0000e-005	2.7200e-003	7.2000e-004	1.0000e-005	7.3000e-004						
Total	2.5700e-003	0.1026	0.0348	4.7000e-004	0.0156	8.4000e-004	0.0164	4.2500e-003	8.1000e-004	5.0600e-003						

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1417	0.0000	0.1417	0.0726	0.0000	0.0726						
Off-Road	0.0357	0.3662	0.3173	6.4000e-004		0.0156	0.0156		0.0143	0.0143						
Total	0.0357	0.3662	0.3173	6.4000e-004	0.1417	0.0156	0.1573	0.0726	0.0143	0.0869						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0966	0.0263	4.2000e-004	0.0123	8.0000e-004	0.0131	3.3800e-003	7.7000e-004	4.1500e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	8.2000e-004	5.4000e-004	6.8700e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	2.3900e-003	0.0971	0.0332	4.4000e-004	0.0149	8.1000e-004	0.0157	4.0700e-003	7.8000e-004	4.8500e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0553	0.0000	0.0553	0.0283	0.0000	0.0283						
Off-Road	0.0357	0.3662	0.3173	6.4000e-004		0.0156	0.0156		0.0143	0.0143						
Total	0.0357	0.3662	0.3173	6.4000e-004	0.0553	0.0156	0.0709	0.0283	0.0143	0.0426						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0966	0.0263	4.2000e-004	0.0123	8.0000e-004	0.0131	3.3800e-003	7.7000e-004	4.1500e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	8.2000e-004	5.4000e-004	6.8700e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	2.3900e-003	0.0971	0.0332	4.4000e-004	0.0149	8.1000e-004	0.0157	4.0700e-003	7.8000e-004	4.8500e-003						

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						
Total	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.7100e-003	0.1057	0.0367	4.8000e-004	0.0159	6.3000e-004	0.0166	4.6000e-003	6.0000e-004	5.2000e-003						
Worker	0.0399	0.0264	0.3342	1.0500e-003	0.1259	6.6000e-004	0.1265	0.0335	6.1000e-004	0.0341						
Total	0.0426	0.1321	0.3709	1.5300e-003	0.1418	1.2900e-003	0.1431	0.0381	1.2100e-003	0.0393						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						
Total	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.7100e-003	0.1057	0.0367	4.8000e-004	0.0159	6.3000e-004	0.0166	4.6000e-003	6.0000e-004	5.2000e-003						
Worker	0.0399	0.0264	0.3342	1.0500e-003	0.1259	6.6000e-004	0.1265	0.0335	6.1000e-004	0.0341						
Total	0.0426	0.1321	0.3709	1.5300e-003	0.1418	1.2900e-003	0.1431	0.0381	1.2100e-003	0.0393						

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						
Total	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	1.0300e-003	0.0413	0.0142	1.9000e-004	6.2800e-003	2.5000e-004	6.5300e-003	1.8100e-003	2.4000e-004	2.0500e-003						
Worker	0.0148	9.4300e-003	0.1236	4.0000e-004	0.0497	2.5000e-004	0.0499	0.0132	2.3000e-004	0.0134						
Total	0.0159	0.0507	0.1378	5.9000e-004	0.0559	5.0000e-004	0.0564	0.0150	4.7000e-004	0.0155						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						
Total	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	1.0300e-003	0.0413	0.0142	1.9000e-004	6.2800e-003	2.5000e-004	6.5300e-003	1.8100e-003	2.4000e-004	2.0500e-003						
Worker	0.0148	9.4300e-003	0.1236	4.0000e-004	0.0497	2.5000e-004	0.0499	0.0132	2.3000e-004	0.0134						
Total	0.0159	0.0507	0.1378	5.9000e-004	0.0559	5.0000e-004	0.0564	0.0150	4.7000e-004	0.0155						

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5025					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						
Total	0.5061	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.4900e-003	9.5000e-004	0.0124	4.0000e-005	5.0000e-003	2.0000e-005	5.0200e-003	1.3300e-003	2.0000e-005	1.3500e-003						
Total	1.4900e-003	9.5000e-004	0.0124	4.0000e-005	5.0000e-003	2.0000e-005	5.0200e-003	1.3300e-003	2.0000e-005	1.3500e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5025					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						
Total	0.5061	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.4900e-003	9.5000e-004	0.0124	4.0000e-005	5.0000e-003	2.0000e-005	5.0200e-003	1.3300e-003	2.0000e-005	1.3500e-003						
Total	1.4900e-003	9.5000e-004	0.0124	4.0000e-005	5.0000e-003	2.0000e-005	5.0200e-003	1.3300e-003	2.0000e-005	1.3500e-003						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4898	0.5288	4.4620	9.3300e-003	1.0278	7.2900e-003	1.0351	0.2743	6.7900e-003	0.2811						
Unmitigated	0.5170	0.5750	4.8479	0.0103	1.1420	8.0100e-003	1.1500	0.3048	7.4800e-003	0.3123						

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,069.20	1,069.20	1069.20	3,052,890	2,747,601
General Office Building	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1,069.20	1,069.20	1,069.20	3,052,890	2,747,601

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Recreational	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated	8.1700e-003	0.0700	0.0313	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003						
NaturalGas Unmitigated	8.1700e-003	0.0700	0.0313	4.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.44066e+006	7.7700e-003	0.0664	0.0283	4.2000e-004		5.3700e-003	5.3700e-003		5.3700e-003	5.3700e-003						
General Office Building	74511.6	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		8.1700e-003	0.0700	0.0313	4.4000e-004		5.6500e-003	5.6500e-003		5.6500e-003	5.6500e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.44066e+006	7.7700e-003	0.0664	0.0283	4.2000e-004		5.3700e-003	5.3700e-003		5.3700e-003	5.3700e-003						
General Office Building	74511.6	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		8.1700e-003	0.0700	0.0313	4.4000e-004		5.6500e-003	5.6500e-003		5.6500e-003	5.6500e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	760348				
General Office Building	48136.8				
User Defined Recreational	0				
Total					

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	760348				
General Office Building	48136.8				
User Defined Recreational	0				
Total					

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8836	0.0289	1.4739	1.5000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003						
Unmitigated	0.8836	0.0289	1.4739	1.5000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0503					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.7878					0.0000	0.0000		0.0000	0.0000						
Hearth	1.4100e-003	0.0120	5.1100e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004						
Landscaping	0.0441	0.0169	1.4688	8.0000e-005		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003						
Total	0.8836	0.0289	1.4739	1.6000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003						

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0503					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.7878					0.0000	0.0000		0.0000	0.0000						
Hearth	1.4100e-003	0.0120	5.1100e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004						
Landscaping	0.0441	0.0169	1.4688	8.0000e-005		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003						
Total	0.8836	0.0289	1.4739	1.6000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003						

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	12.9005 / 8.13292				
General Office Building	0.657615 / 0.403054				
User Defined Recreational	0 / 0				
Total					

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	10.3204 / 7.63681				
General Office Building	0.526092 / 0.378468				
User Defined Recreational	0 / 0				
Total					

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	91.08				
General Office Building	3.44				
User Defined Recreational	0				
Total					

Palm and Hollister As Proposed - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	45.54				
General Office Building	1.72				
User Defined Recreational	0				
Total					

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

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APPENDIX A-3

**CALEEMOD ANNUAL OUTPUT FILE
FULL BUILDOUT SCENARIO WITH MITIGATION MEASURE 1**

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Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Palm and Hollister
San Diego Air Basin, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.70	1000sqft	0.10	3,720.00	0
User Defined Recreational	0.19	User Defined Unit	0.19	0.00	0
Apartments Mid Rise	206.00	Dwelling Unit	5.21	206,000.00	589

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	539.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Max. Buildout = 206 units; Default residential will include parking areas, with rec/leasing center 3720 sqft. Open space and other recreational facilities onsite to add to total project acreage, 5.5 acres graded.

Grading - Added more acreage to site prep phase to account for remedial grading.

Architectural Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Vehicle Trips - From TIA (Michael Baker, 11/2022), 6 daily trips/DU, with 10% transit credit = 5.4 trips/DU. General Office Bldg rec/leasing building: no traffic listed for building in TIA, so trip rate is assumed to be inclusive.

Woodstoves - No hearths listed in Site Plan (Summa, 7/2022), confirmed by KLR. Five gas fireplaces have been included to model the gas-fired BBQ stoves within the rec area, assumed to operate (combined) 468 hrs/yr plus two gas fire tables assumed to operate (combined) 156 hrs/yr.

Area Coating - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (27,810 for residential, 440 for rec/leasing building).

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 engines

Mobile Land Use Mitigation - Max. buildout density of 34.85 du/acre.

Mobile Commute Mitigation -

Area Mitigation - Use Low VOC Paint (50 g/L residential, 50 g/L non-residential, 100 g/L parking). Exterior of building is stucco, so 20% of exterior may be painted trim (26,730 for residential, 440 for rec/leasing building).

Water Mitigation -

Waste Mitigation - Recycling and Composting (per state standards - 3 streams - CA is aiming for 75% reduction). Assume minimum of 50% applied.

Stationary Sources - Process Boilers -

Stationary Sources - User Defined -

Construction Phase - As modeled in Jan. 2022, but added more time for site prep. because of remedial grading.

Demolition - Square footage of existing buildings from GE measurements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,860.00	440.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	139,050.00	27,810.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	1860	440
tblAreaCoating	Area_Residential_Exterior	139050	27810
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	85.00
tblConstructionPhase	NumDays	20.00	88.00

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	230.00	304.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/28/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	7/12/2023	10/27/2023
tblConstructionPhase	PhaseEndDate	8/9/2023	2/28/2024
tblConstructionPhase	PhaseEndDate	6/26/2024	4/30/2025
tblConstructionPhase	PhaseEndDate	7/24/2024	6/30/2025
tblConstructionPhase	PhaseEndDate	8/21/2024	6/30/2025
tblConstructionPhase	PhaseStartDate	6/29/2023	7/3/2023
tblConstructionPhase	PhaseStartDate	7/13/2023	10/30/2023
tblConstructionPhase	PhaseStartDate	8/10/2023	3/1/2024
tblConstructionPhase	PhaseStartDate	6/27/2024	5/1/2025
tblConstructionPhase	PhaseStartDate	7/25/2024	5/1/2025
tblFireplaces	FireplaceDayYear	82.00	180.00
tblFireplaces	FireplaceHourDay	3.00	3.45
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	113.30	7.00
tblFireplaces	NumberNoFireplace	20.60	0.00
tblFireplaces	NumberWood	72.10	0.00
tblGrading	AcresOfGrading	88.00	20.00
tblGrading	AcresOfGrading	127.50	20.00
tblGrading	MaterialImported	0.00	23,500.00
tblLandUse	LandUseSquareFeet	3,700.00	3,720.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	0.00	0.19
tblLandUse	LotAcreage	5.42	5.21
tblVehicleTrips	ST_TR	4.91	5.40
tblVehicleTrips	ST_TR	2.21	0.00

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tblVehicleTrips	SU_TR	4.09	5.40
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	5.40
tblVehicleTrips	WD_TR	9.74	0.00
tblWoodstoves	NumberCatalytic	10.30	0.00
tblWoodstoves	NumberNoncatalytic	10.30	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1816	1.9149	1.3796	3.2500e-003	0.9508	0.0831	1.0339	0.5056	0.0766	0.5822						
2024	0.2429	2.0667	2.4991	5.6200e-003	0.3044	0.0846	0.3890	0.1163	0.0793	0.1955						
2025	0.6236	0.7998	1.2069	2.3900e-003	0.0661	0.0334	0.0994	0.0177	0.0313	0.0490						
Maximum	0.6236	2.0667	2.4991	5.6200e-003	0.9508	0.0846	1.0339	0.5056	0.0793	0.5822						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0381	0.2485	1.5987	3.2500e-003	0.3849	5.3000e-003	0.3903	0.2010	5.2600e-003	0.2063						
2024	0.0903	0.5126	2.7045	5.6200e-003	0.2179	7.6500e-003	0.2256	0.0720	7.5300e-003	0.0795						
2025	0.5622	0.1795	1.3249	2.3900e-003	0.0661	3.2000e-003	0.0693	0.0177	3.1600e-003	0.0209						
Maximum	0.5622	0.5126	2.7045	5.6200e-003	0.3849	7.6500e-003	0.3903	0.2010	7.5300e-003	0.2063						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	34.10	80.33	-10.67	0.00	49.37	91.97	55.00	54.54	91.48	62.90	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2023	8-31-2023	0.9046	0.0830
2	9-1-2023	11-30-2023	0.8943	0.1280
3	12-1-2023	2-29-2024	0.7611	0.2120
4	3-1-2024	5-31-2024	0.5444	0.1385
5	6-1-2024	8-31-2024	0.5433	0.1374
6	9-1-2024	11-30-2024	0.5396	0.1381
7	12-1-2024	2-28-2025	0.5108	0.1365
8	3-1-2025	5-31-2025	0.7273	0.3803
9	6-1-2025	8-31-2025	0.3781	0.2800
		Highest	0.9046	0.3803

Palm and Hollister - San Diego Air Basin, Annual

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						
Energy	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						
Mobile	0.5378	0.5982	5.0438	0.0108	1.1881	8.3400e-003	1.1965	0.3171	7.7800e-003	0.3249						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	1.4649	0.7006	6.6095	0.0114	1.1881	0.0237	1.2118	0.3171	0.0231	0.3402						

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						
Energy	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						
Mobile	0.5096	0.5502	4.6423	9.7100e-003	1.0693	7.5800e-003	1.0769	0.2854	7.0700e-003	0.2925						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	1.4367	0.6525	6.2080	0.0103	1.0693	0.0229	1.0922	0.2854	0.0224	0.3078						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.93	6.86	6.07	9.15	10.00	3.21	9.87	10.00	3.07	9.53	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/30/2023	5	22	
2	Site Preparation	Site Preparation	7/3/2023	10/27/2023	5	85	
3	Grading	Grading	10/30/2023	2/28/2024	5	88	

Palm and Hollister - San Diego Air Basin, Annual

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4	Building Construction	Building Construction	3/1/2024	4/30/2025	5	304
5	Paving	Paving	5/1/2025	6/30/2025	5	43
6	Architectural Coating	Architectural Coating	5/1/2025	6/30/2025	5	43

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 417,150; Residential Outdoor: 27,810; Non-Residential Indoor: 5,580; Non-Residential Outdoor: 440; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Palm and Hollister - San Diego Air Basin, Annual

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Architectural Coating	Air Compressors	1	6.00	78	0.48
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,938.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	2.3000e-004	0.0000	2.3000e-004						
Off-Road	0.0250	0.2363	0.2161	4.3000e-004		0.0110	0.0110		0.0102	0.0102						
Total	0.0250	0.2363	0.2161	4.3000e-004	1.4900e-003	0.0110	0.0125	2.3000e-004	0.0102	0.0104						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.5000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.5000e-004	3.1000e-004	3.7600e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004						
Total	4.7000e-004	1.2600e-003	4.0100e-003	1.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	3.8000e-004	2.0000e-005	4.0000e-004						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-004	0.0000	5.8000e-004	9.0000e-005	0.0000	9.0000e-005						
Off-Road	5.0900e-003	0.0220	0.2561	4.3000e-004		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004						
Total	5.0900e-003	0.0220	0.2561	4.3000e-004	5.8000e-004	6.8000e-004	1.2600e-003	9.0000e-005	6.8000e-004	7.7000e-004						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.5000e-004	2.5000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.5000e-004	3.1000e-004	3.7600e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004						
Total	4.7000e-004	1.2600e-003	4.0100e-003	1.0000e-005	1.4400e-003	2.0000e-005	1.4600e-003	3.8000e-004	2.0000e-005	4.0000e-004						

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7784	0.0000	0.7784	0.4232	0.0000	0.4232						
Off-Road	0.1130	1.1698	0.7754	1.6200e-003		0.0538	0.0538		0.0495	0.0495						
Total	0.1130	1.1698	0.7754	1.6200e-003	0.7784	0.0538	0.8322	0.4232	0.0495	0.4727						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						
Total	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3036	0.0000	0.3036	0.1651	0.0000	0.1651						
Off-Road	0.0198	0.0857	0.8869	1.6200e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003						
Total	0.0198	0.0857	0.8869	1.6200e-003	0.3036	2.6400e-003	0.3062	0.1651	2.6400e-003	0.1677						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						
Total	2.0700e-003	1.4300e-003	0.0174	5.0000e-005	6.1300e-003	3.0000e-005	6.1700e-003	1.6300e-003	3.0000e-005	1.6600e-003						

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1478	0.0000	0.1478	0.0759	0.0000	0.0759						
Off-Road	0.0385	0.4036	0.3319	6.7000e-004		0.0174	0.0174		0.0160	0.0160						
Total	0.0385	0.4036	0.3319	6.7000e-004	0.1478	0.0174	0.1652	0.0759	0.0160	0.0919						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.1020	0.0271	4.5000e-004	0.0129	8.3000e-004	0.0137	3.5300e-003	8.0000e-004	4.3300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	9.1000e-004	6.3000e-004	7.6900e-003	2.0000e-005	2.7100e-003	1.0000e-005	2.7200e-003	7.2000e-004	1.0000e-005	7.3000e-004						
Total	2.5700e-003	0.1026	0.0348	4.7000e-004	0.0156	8.4000e-004	0.0164	4.2500e-003	8.1000e-004	5.0600e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0576	0.0000	0.0576	0.0296	0.0000	0.0296						
Off-Road	8.1700e-003	0.0354	0.3994	6.7000e-004		1.0900e-003	1.0900e-003		1.0900e-003	1.0900e-003						
Total	8.1700e-003	0.0354	0.3994	6.7000e-004	0.0576	1.0900e-003	0.0587	0.0296	1.0900e-003	0.0307						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.1020	0.0271	4.5000e-004	0.0129	8.3000e-004	0.0137	3.5300e-003	8.0000e-004	4.3300e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	9.1000e-004	6.3000e-004	7.6900e-003	2.0000e-005	2.7100e-003	1.0000e-005	2.7200e-003	7.2000e-004	1.0000e-005	7.3000e-004						
Total	2.5700e-003	0.1026	0.0348	4.7000e-004	0.0156	8.4000e-004	0.0164	4.2500e-003	8.1000e-004	5.0600e-003						

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1417	0.0000	0.1417	0.0726	0.0000	0.0726						
Off-Road	0.0357	0.3662	0.3173	6.4000e-004		0.0156	0.0156		0.0143	0.0143						
Total	0.0357	0.3662	0.3173	6.4000e-004	0.1417	0.0156	0.1573	0.0726	0.0143	0.0869						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0966	0.0263	4.2000e-004	0.0123	8.0000e-004	0.0131	3.3800e-003	7.7000e-004	4.1500e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	8.2000e-004	5.4000e-004	6.8700e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	2.3900e-003	0.0971	0.0332	4.4000e-004	0.0149	8.1000e-004	0.0157	4.0700e-003	7.8000e-004	4.8500e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0553	0.0000	0.0553	0.0283	0.0000	0.0283						
Off-Road	7.8100e-003	0.0338	0.3817	6.4000e-004		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003						
Total	7.8100e-003	0.0338	0.3817	6.4000e-004	0.0553	1.0400e-003	0.0563	0.0283	1.0400e-003	0.0293						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0966	0.0263	4.2000e-004	0.0123	8.0000e-004	0.0131	3.3800e-003	7.7000e-004	4.1500e-003						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	8.2000e-004	5.4000e-004	6.8700e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	2.3900e-003	0.0971	0.0332	4.4000e-004	0.0149	8.1000e-004	0.0157	4.0700e-003	7.8000e-004	4.8500e-003						

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						
Total	0.1604	1.4654	1.7622	2.9400e-003		0.0669	0.0669		0.0629	0.0629						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.8300e-003	0.1105	0.0384	5.0000e-004	0.0167	6.6000e-004	0.0173	4.8100e-003	6.3000e-004	5.4400e-003						
Worker	0.0415	0.0275	0.3481	1.0900e-003	0.1311	6.9000e-004	0.1318	0.0348	6.3000e-004	0.0355						
Total	0.0444	0.1381	0.3865	1.5900e-003	0.1478	1.3500e-003	0.1491	0.0397	1.2600e-003	0.0409						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0357	0.2436	1.9032	2.9400e-003		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003						
Total	0.0357	0.2436	1.9032	2.9400e-003		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.8300e-003	0.1105	0.0384	5.0000e-004	0.0167	6.6000e-004	0.0173	4.8100e-003	6.3000e-004	5.4400e-003						
Worker	0.0415	0.0275	0.3481	1.0900e-003	0.1311	6.9000e-004	0.1318	0.0348	6.3000e-004	0.0355						
Total	0.0444	0.1381	0.3865	1.5900e-003	0.1478	1.3500e-003	0.1491	0.0397	1.2600e-003	0.0409						

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						
Total	0.0588	0.5362	0.6916	1.1600e-003		0.0227	0.0227		0.0213	0.0213						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	1.0800e-003	0.0432	0.0149	1.9000e-004	6.5700e-003	2.6000e-004	6.8300e-003	1.9000e-003	2.5000e-004	2.1400e-003						
Worker	0.0154	9.8200e-003	0.1287	4.2000e-004	0.0517	2.6000e-004	0.0520	0.0137	2.4000e-004	0.0140						
Total	0.0165	0.0530	0.1436	6.1000e-004	0.0583	5.2000e-004	0.0588	0.0156	4.9000e-004	0.0161						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0141	0.0961	0.7508	1.1600e-003		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003						
Total	0.0141	0.0961	0.7508	1.1600e-003		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	1.0800e-003	0.0432	0.0149	1.9000e-004	6.5700e-003	2.6000e-004	6.8300e-003	1.9000e-003	2.5000e-004	2.1400e-003						
Worker	0.0154	9.8200e-003	0.1287	4.2000e-004	0.0517	2.6000e-004	0.0520	0.0137	2.4000e-004	0.0140						
Total	0.0165	0.0530	0.1436	6.1000e-004	0.0583	5.2000e-004	0.0588	0.0156	4.9000e-004	0.0161						

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	0.0197	0.1845	0.3134	4.9000e-004		9.0000e-003	9.0000e-003		8.2800e-003	8.2800e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.0300e-003	0.0261	0.3719	4.9000e-004		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	6.0300e-003	0.0261	0.3719	4.9000e-004		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						
Total	7.7000e-004	4.9000e-004	6.4400e-003	2.0000e-005	2.5900e-003	1.0000e-005	2.6000e-003	6.9000e-004	1.0000e-005	7.0000e-004						

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5226					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						
Total	0.5262	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						
Total	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5226					0.0000	0.0000		0.0000	0.0000						
Off-Road	6.4000e-004	2.7700e-003	0.0394	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005						
Total	0.5232	2.7700e-003	0.0394	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						
Total	1.5400e-003	9.8000e-004	0.0129	4.0000e-005	5.1700e-003	3.0000e-005	5.2000e-003	1.3700e-003	2.0000e-005	1.4000e-003						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5096	0.5502	4.6423	9.7100e-003	1.0693	7.5800e-003	1.0769	0.2854	7.0700e-003	0.2925						
Unmitigated	0.5378	0.5982	5.0438	0.0108	1.1881	8.3400e-003	1.1965	0.3171	7.7800e-003	0.3249						

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,112.40	1,112.40	1112.40	3,176,239	2,858,616
General Office Building	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1,112.40	1,112.40	1,112.40	3,176,239	2,858,616

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Recreational	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						
NaturalGas Unmitigated	8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
Apartments Mid Rise	1.49887e+006	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003							
General Office Building	74511.6	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004							
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000							
Total		8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003							

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.49887e+006	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003						
General Office Building	74511.6	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		8.4800e-003	0.0727	0.0325	4.6000e-004		5.8600e-003	5.8600e-003		5.8600e-003	5.8600e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	791069				
General Office Building	48136.8				
User Defined Recreational	0				
Total					

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	791069				
General Office Building	48136.8				
User Defined Recreational	0				
Total					

6.0 Area Detail

6.1 Mitigation Measures Area

- Use only Natural Gas Hearths
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						
Unmitigated	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0523					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.8191					0.0000	0.0000		0.0000	0.0000						
Hearth	1.4100e-003	0.0120	5.1100e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004						
Landscaping	0.0459	0.0176	1.5282	8.0000e-005		8.4800e-003	8.4800e-003		8.4800e-003	8.4800e-003						
Total	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0523					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.8191					0.0000	0.0000		0.0000	0.0000						
Hearth	1.4100e-003	0.0120	5.1100e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004						
Landscaping	0.0459	0.0176	1.5282	8.0000e-005		8.4800e-003	8.4800e-003		8.4800e-003	8.4800e-003						
Total	0.9186	0.0296	1.5333	1.6000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003						

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	13.4217 / 8.46152				
General Office Building	0.657615 / 0.403054				
User Defined Recreational	0 / 0				
Total					

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	10.7374 / 7.94537				
General Office Building	0.526092 / 0.378468				
User Defined Recreational	0 / 0				
Total					

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	94.76				
General Office Building	3.44				
User Defined Recreational	0				
Total					

Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	47.38				
General Office Building	1.72				
User Defined Recreational	0				
Total					

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Palm and Hollister - San Diego Air Basin, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

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APPENDIX B

SITE PLAN AND VESTING TENTATIVE MAP

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