

# Appendix C

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## Air Quality and Greenhouse Gas Technical Report



# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## TABLE OF CONTENTS

<b><u>Section</u></b>	<b><u>Page No.</u></b>
<b>ACRONYMS AND ABBREVIATIONS.....</b>	<b>III</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>V</b>
<b>1 INTRODUCTION.....</b>	<b>1</b>
1.1 Report Purpose and Scope .....	1
1.2 Regional and Local Setting.....	1
1.3 Project Description.....	2
1.4 Project Design Features .....	<b>Error! Bookmark not defined.</b>
<b>2 AIR QUALITY.....</b>	<b>4</b>
2.1 Environmental Setting .....	4
2.1.1 Climate and Topography.....	4
2.1.2 Air Pollution Climatology.....	4
2.1.3 Sensitive Receptors .....	5
2.1.4 Pollutants and Effects .....	5
2.2 Regulatory Setting .....	10
2.2.1 Federal.....	10
2.2.2 State.....	11
2.2.3 Local .....	13
2.3 Regional and Local Air Quality.....	15
2.3.1 San Diego Air Basin Attainment Designation .....	15
2.3.2 Local Ambient Air Quality .....	17
2.4 Significance Criteria and Methodology .....	19
2.4.1 Thresholds of Significance .....	19
2.4.2 Approach and Methodology .....	20
2.5 Impact Analysis .....	26
2.6 Mitigation Measures .....	40
<b>3 GREENHOUSE GAS EMISSIONS.....</b>	<b>41</b>
3.1 Environmental Setting .....	41
3.1.1 Climate Change Overview .....	41
3.1.2 Greenhouse Gases and other Climate Forcing Substances .....	42
3.1.3 Global Warming Potential .....	44
3.1.4 Sources of Greenhouse Gas Emissions.....	45
3.1.5 Carbon Sequestration .....	<b>Error! Bookmark not defined.</b>
3.1.6 Potential Effects of Climate Change.....	46

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

---

## TABLE OF CONTENTS (CONTINUED)

<b><u>Section</u></b>	<b><u>Page No.</u></b>
3.2 Regulatory Setting .....	47
3.2.1 Federal.....	47
3.2.2 State.....	48
3.2.3 Local .....	59
3.3 Significance Criteria and Methodology .....	62
3.3.1 Thresholds of Significance .....	62
3.3.2 Approach and Methodology .....	66
3.4 Impact Analysis .....	69
3.5 Mitigation Measures .....	84
<b>4 REFERENCES CITED.....</b>	<b>86</b>
<b>5 LIST OF PREPARERS.....</b>	<b>94</b>

## APPENDICES

A	CalEEMod Output Files
B	CO Hotspots Evaluation
C	CAP Consistency Worksheet

## TABLES

1	Ambient Air Quality Standards .....	11
2	San Diego Air Basin Attainment Classification .....	16
3	Local Ambient Air Quality Data.....	17
4	San Diego Air Pollution Control District Air Quality Significance Thresholds .....	20
5	Construction Scenario Parameters .....	21
6	Estimated Maximum Daily Construction Emissions.....	<b>Error! Bookmark not defined.</b>
7	Estimated Project Maximum Daily Operational Emissions.....	<b>Error! Bookmark not defined.</b>
8	Greenhouse Gas Emissions Sources in California.....	45
9	Estimated Annual Construction Greenhouse Gas Emissions .....	70
10	Estimated Annual Project Operational Greenhouse Gas Emissions.....	71
11	Estimated Annual General Plan Buildout Operational Greenhouse Gas Emissions.....	71
12	Estimated Annual Project and General Plan Buildout Operational Greenhouse Gas Emissions.....	72

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AB	Assembly Bill
APN	Assessor's Parcel Number
BAU	Business as Usual
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
$\text{CH}_4$	methane
CO	carbon monoxide
$\text{CO}_2$	carbon dioxide
$\text{CO}_2\text{e}$	carbon dioxide equivalent
DPM	diesel particulate matter
EO	Executive Order
EPA	U.S. Environmental Protection Agency
g/L	grams per liter
GHG	greenhouse gas
GWP	global warming potential
HCFC	hydrochlorofluorocarbon
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
LOS	level of service
$\text{mg}/\text{m}^3$	milligrams per cubic meter
MMT	million metric tons
MT	metric ton
$\text{N}_2\text{O}$	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
$\text{NO}_2$	nitrogen dioxide
$\text{NO}_x$	oxides of nitrogen
$\text{O}_2$	oxygen (molecular)
$\text{O}_3$	ozone
PFC	perfluorocarbon
$\text{PM}_{10}$	coarse particulate matter

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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Acronym/Abbreviation	Definition
PM <sub>2.5</sub>	fine particulate matter
ppb	parts per billion
ppm	parts per million
RAQS	Regional Air Quality Strategy
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SF <sub>6</sub>	sulfur hexafluoride
SIP	State Implementation Plan
SO <sub>x</sub>	sulfur oxides
SR-	State Route
TAC	toxic air contaminant
VOC	volatile organic compound
ZEV	Zero Emissions Vehicle
ZNE	zero net energy



# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **EXECUTIVE SUMMARY**

The Sunrise Specific Plan (project) involves construction of up to 192 multifamily dwelling units on a 14.4-acre site situated at the City of San Marcos' (City's) southeastern limits. The project site is located within the San Diego Air Basin (SDAB) and is subject to the guidelines and regulations of the San Diego Air Pollution Control District (SDAPCD).

### **Air Quality**

The air quality impact analysis provides an evaluation of the potential for significant adverse impacts to the ambient air quality due to construction and operational emissions resulting from the project. Construction of the project would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. The analysis concludes that the daily and annual construction emissions would not exceed SDAPCD's significance thresholds for criteria pollutants and thus would result in a less-than-significant impact.

Operational emissions for the project were also found to be below SDAPCD's significance thresholds; therefore, impacts during project operation would be less than significant. Additionally, impacts to sensitive receptors during temporary construction activities and operation of the project were determined to be less than significant. Lastly, project operation would not generate odors at levels that would cause a nuisance; therefore, impacts would be less than significant.

### **Greenhouse Gas Emissions**

The project's potential effect on global climate change was evaluated, and emissions of greenhouse gas (GHG) were estimated based on the use of construction equipment and vehicle trips associated with construction activities, as well as operational emissions once construction phases are complete. First, the annual project-generated GHG emissions were estimated to result in approximately 1,839 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e) per year as a result of project operations and amortized construction emissions, which is less than the emissions anticipated in the City's Climate Action Plan (CAP). The project was also deemed consistent with the City's CAP Measures. Second, the project would result in 3.1 MT CO<sub>2</sub>e per service population per year, which would be less than the City's efficiency metric of 3.2 MT CO<sub>2</sub>e per service population per year calculated for calendar year 2030. Therefore, the project would make substantial progress towards the climate stabilizing reduction targets for 2030 and 2045 established by Senate Bill (SB) 32 and Executive Order (EO) B-55-18.

## **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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Third, the project would be consistent with and would not conflict with the applicable GHG-reducing strategies of the state that implicate the project's construction and operational components. The project did not have a cumulative impact on the environment when evaluated with the City's CAP Consistency Worksheet. Therefore, GHG impacts would be less than significant.

# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **1 INTRODUCTION**

### **1.1 Report Purpose and Scope**

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with construction and operation of the Sunrise Specific Plan (project). This analysis uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) and the emissions-based significance thresholds recommended by the San Diego Air Pollution Control District (SDAPCD) and other applicable thresholds of significance.

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

### **1.2 Regional and Local Setting**

The site is located in the land use jurisdictions of both the City of San Marcos (City) and the County of San Diego (County); however, it is proposed to be annexed into the City of San Marcos. The site is located at the southeastern portion of the City of San Marcos, bordering the City of Escondido to the east and unincorporated County of San Diego lands to the south.

The City is located within the San Diego Air Basin (SDAB) and is under the jurisdiction of the SDAPCD. The project site is located near Interstate 15 and State Route (SR-) 78. SR-78 is located approximately 1 mile from the project site. From the SR-78 Nordahl onramp, it is approximately 1 mile to connect to Interstate 15. In addition to the highway system, Sprinter rail service and bus transit service are located approximately 0.6 miles from the project site on East Mission Road. The project site is immediately bordered by low density residential manufactured homes to the north and west and a light industrial business park to the east and south. The project site is currently vacant, with areas disturbed from previous agricultural uses.

# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **1.3 Project Description**

The project involves construction of a 14.4-acre development with approximately 192 multifamily homes and open space. The project includes a mix of two- and three-story townhomes ranging in size from a minimum of approximately 1,200 square feet to a maximum of approximately 1,900 square feet. The project also includes a 384 garage parking spaces and 80 surface parking spaces, off-site construction of the private driveway, and off-site utility improvements. Construction activities are expected to begin in March 2020. Project operation is expected to begin in 2022. The residential project is on an infill site within a transit priority area according to Section 21099 of the California Public Resources Code.

# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **2 AIR QUALITY**

### **2.1 Environmental Setting**

#### **2.1.1 Climate and Topography**

The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average summertime high temperature in the region is approximately 74°F, with highs approaching 76°F in August on average. The average wintertime low temperature is approximately 49°F, although record lows have approached 48°F in January. Average precipitation in the local area is approximately 10 inches per year, with the bulk of precipitation falling between December and March (WRCC 2017).

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east; along with local meteorology, topography influences the dispersal and movement of pollutants in the air basin. The mountains to the east prevent dispersal of pollutants in that direction and help trap them in inversion layers.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

#### **2.1.2 Air Pollution Climatology**

The SDAB is one of 15 air basins that geographically divide the State of California. The SDAB is currently classified as a federal nonattainment area for ozone (O<sub>3</sub>) and a state nonattainment area for particulate matter less than or equal to 10 microns (coarse particulate matter (PM<sub>10</sub>)), particulate matter less than or equal to 2.5 microns (fine particulate matter (PM<sub>2.5</sub>)), and O<sub>3</sub>.

The SDAB lies in the southwest corner of California and comprises the entire San Diego region, covering 4,260 square miles, and it is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps

## **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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pollutants. Another type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and the air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce O<sub>3</sub>, commonly known as smog (CARB 2014a).

Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and oxides of nitrogen (NO<sub>x</sub>) emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SDAB are associated with heavy traffic. Nitrogen dioxide (NO<sub>2</sub>) levels are also generally higher during fall and winter days.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County. This often produces high O<sub>3</sub> concentrations, as measured at air pollutant monitoring stations within the County. The transport of air pollutants from Los Angeles to San Diego has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O<sub>3</sub> are transported.

### **2.1.3 Sensitive Receptors**

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by the California Air Resources Board (CARB), include children, the elderly, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest existing sensitive receptors include single-family residents across Poco Grande Vista Road to the west side of the project site and directly adjacent to the project on the north side.

### **2.1.4 Pollutants and Effects**

#### **2.1.4.1 Criteria Air Pollutants**

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels



## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following text.<sup>1</sup> In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone.** O<sub>3</sub> is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O<sub>3</sub> precursors, such as hydrocarbons and NO<sub>x</sub>. These precursors are mainly NO<sub>x</sub> and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O<sub>3</sub> concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O<sub>3</sub> formation, and ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O<sub>3</sub> exists in the upper atmosphere ozone layer (stratospheric ozone) as well as at the Earth's surface in the troposphere (ozone). O<sub>3</sub> in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

**Nitrogen Dioxide.** NO<sub>2</sub> is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO<sub>2</sub> in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO<sub>x</sub> plays a major role, together with VOCs, in the atmospheric reactions that produce O<sub>3</sub>. NO<sub>x</sub> is formed from fuel combustion under high temperature or pressure. In addition, NO<sub>x</sub> is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. NO<sub>2</sub> can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections.

**Carbon Monoxide.** CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil, fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air

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<sup>1</sup> The descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the U.S. Environmental Protection Agency's (EPA's) "Criteria Air Pollutants" (EPA 2016a) and CARB's "Glossary of Air Pollution Terms" (CARB 2014a).

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions; primarily, wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

***Sulfur Dioxide.*** SO<sub>2</sub> is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO<sub>2</sub> are coal and oil used in power plants and industries; as such, the highest levels of SO<sub>2</sub> are generally found near large industrial complexes. In recent years, SO<sub>2</sub> concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO<sub>2</sub> and limits on the sulfur content of fuels. SO<sub>2</sub> is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished lung function in children. When combined with particulate matter, SO<sub>2</sub> can injure lung tissue and reduce visibility and the level of sunlight. SO<sub>2</sub> can also yellow plant leaves and erode iron and steel.

***Particulate Matter.*** Particulate matter pollution consists of very small liquid and solid particles, which can include smoke, soot, dust, salts, acids, and metals, floating in the air. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM<sub>2.5</sub> and PM<sub>10</sub> represent fractions of particulate matter. PM<sub>2.5</sub> (fine particulate matter) is roughly 1/28 the diameter of a human hair. PM<sub>2.5</sub> results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM<sub>2.5</sub> can be formed in the atmosphere from gases such as sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOCs. PM<sub>10</sub> (respirable particulate matter, or coarse particulate matter), is about 1/7 the thickness of a human hair. Major sources of PM<sub>10</sub> include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

PM<sub>2.5</sub> and PM<sub>10</sub> pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM<sub>2.5</sub> and PM<sub>10</sub> can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM<sub>10</sub> tends to collect in the upper portion of the respiratory system, PM<sub>2.5</sub> is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle, as well as producing haze and reducing regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM<sub>10</sub> and PM<sub>2.5</sub>. Other groups considered sensitive are smokers, people who cannot breathe well through their noses, and exercising athletes (because many breathe through their mouths).

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

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

**Volatile Organic Compounds.** Hydrocarbons are organic gases that are formed from hydrogen and carbon, and sometimes other elements. Hydrocarbons that contribute to formation of O<sub>3</sub> are referred to and regulated as VOCs. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry-cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O<sub>3</sub> and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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### 2.1.4.2 Non-Criteria Air Pollutants

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

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

The California Air Resources Board (CARB) classified “particulate emissions from diesel-fueled engines” (i.e., diesel particulate matter (DPM)) as a TAC in August 1998. 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. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with diesel particulate matter, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000).

**Valley Fever.** Coccidioidomycosis, more commonly known as “Valley Fever,” is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. When fungal spores are present, any activity that disturbs the soil, such as digging, grading, or other earth-moving operations, can cause the spores to become

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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airborne and thereby increase the risk of exposure. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline sandy soils.

Valley Fever is not considered highly endemic to San Diego. Per the San Diego County Health and Human Services Agency, the 10-year average (2008–2017) for *Coccidioidomycosis* cases in the County of San Diego is 4.5 cases per 100,000 people per year. The project area is wholly contained within the 92078 zip code. For the 92078 zip code, there were 10 cases of *Coccidioidomycosis* between 2008 and 2017, which is equivalent to a rate of 2.3 cases per 100,000 people (Nelson 2018). Statewide incidences in 2016 were 13.7 per 100,000 people (CDPH 2017).

Even if present at a site, earth-moving activities may not result in increased incidence of Valley Fever. Propagation of *Coccidioides immitis* is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. *Coccidioides immitis* spores can be released when filaments are disturbed by earth-moving activities, although receptors must be exposed to and inhale the spores to be at increased risk of developing Valley Fever. Moreover, exposure to *Coccidioides immitis* does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (USGS 2000).

## 2.2 Regulatory Setting

### 2.2.1 Federal

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The U.S. Environmental Protection Agency (EPA) is responsible for implementing most aspects of the Clean Air Act, including setting National ambient air quality standards (NAAQS) for major air pollutants, setting hazardous air pollutant standards, approving state attainment plans, setting motor vehicle emission standards, issuing stationary source emission standards and permits, and establishing acid rain control measures, stratospheric O<sub>3</sub> protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the criteria pollutants O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the U.S. Environmental

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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Protection Agency (EPA) to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

### 2.2.2 State

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

CARB has established California ambient air quality standards (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 O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 1.

**Table 1**  
**Ambient Air Quality Standards**

Pollutant	Averaging Time	CAAQS <sup>a</sup>	NAAQS <sup>b</sup>	
		Concentration <sup>c</sup>	Primary <sup>c,d</sup>	Secondary <sup>c,e</sup>
O <sub>3</sub>	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	—	Same as primary standard <sup>f</sup>
	8 hours	0.070 ppm (137 µg/m <sup>3</sup> )	0.070 ppm (137 µg/m <sup>3</sup> ) <sup>f</sup>	
NO <sub>2</sub> <sup>g</sup>	1 hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.100 ppm (188 µg/m <sup>3</sup> )	Same as primary standard
	Annual arithmetic mean	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	
CO	1 hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	None
	8 hours	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	
SO <sub>2</sub> <sup>h</sup>	1 hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm (196 µg/m <sup>3</sup> )	—
	3 hours	—	—	0.5 ppm (1,300 µg/m <sup>3</sup> )
	24 hours	0.04 ppm (105 µg/m <sup>3</sup> )	0.14 ppm (for certain areas) <sup>g</sup>	—
	Annual	—	0.030 ppm (for certain areas) <sup>g</sup>	—

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 1**  
**Ambient Air Quality Standards**

Pollutant	Averaging Time	CAAQS <sup>a</sup>	NAAQS <sup>b</sup>	
		Concentration <sup>c</sup>	Primary <sup>c,d</sup>	Secondary <sup>c,e</sup>
PM <sub>10</sub> <sup>f</sup>	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as primary standard
	Annual arithmetic mean	20 µg/m <sup>3</sup>	—	
PM <sub>2.5</sub> <sup>f</sup>	24 hours	—	35 µg/m <sup>3</sup>	Same as primary standard
	Annual arithmetic mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>
Lead <sup>g,k</sup>	30-day average	1.5 µg/m <sup>3</sup>	—	—
	Calendar quarter	—	1.5 µg/m <sup>3</sup> (for certain areas) <sup>k</sup>	Same as primary standard
	Rolling 3-month average	—	0.15 µg/m <sup>3</sup>	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m <sup>3</sup> )	—	—
Vinyl chloride <sup>l</sup>	24 hours	0.01 ppm (26 µg/m <sup>3</sup> )	—	—
Sulfates	24- hours	25 µg/m <sup>3</sup>	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%	—	—

Source: CARB 2016a.

**Notes:** CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; O<sub>3</sub> = ozone; ppm = parts per million by volume; µg/m<sup>3</sup> = micrograms per cubic meter; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; mg/m<sup>3</sup> = milligrams per cubic meter; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter.

<sup>a</sup> California standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, suspended particulate matter—PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>b</sup> National standards (other than O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O<sub>3</sub> standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than 1. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

<sup>c</sup> 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.

<sup>d</sup> National primary standards: the levels of air quality necessary, with an adequate margin of safety to protect the public health.

<sup>e</sup> National secondary standards: the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>f</sup> On October 1, 2015, the primary and secondary NAAQS for O<sub>3</sub> were lowered from 0.075 ppm to 0.070 ppm.

<sup>g</sup> 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 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

<sup>h</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> 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<sub>2</sub> national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

- i On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- j CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

## 2.2.3 Local

### San Diego Air Pollution Control District

Although 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 is located within the SDAB and is subject to SDAPCD guidelines and regulations. In San Diego County, O<sub>3</sub> and particulate matter are the pollutants of main concern, because exceedances of the CAAQS for those pollutants are experienced here in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM<sub>10</sub>, PM<sub>2.5</sub>, and O<sub>3</sub> (1-hour and 8-hour) standards. The SDAB is also designated as a federal O<sub>3</sub> marginal nonattainment area for the 2008 8-hour NAAQS for O<sub>3</sub>.

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 Regional Air Quality Strategy (RAQS) for the SDAB was initially adopted in 1991, and is updated every 3 years (most recently in 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O<sub>3</sub>. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in the County, to project 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.

The 8-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O<sub>3</sub> standard by 2018 (SDAPCD 2016). In this plan, SDAPCD relies on the RAQS to demonstrate how the



## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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region will comply with the federal O<sub>3</sub> standard. The RAQS details how the region will manage and reduce O<sub>3</sub> precursors (NO<sub>x</sub> and VOCs) by identifying measures and regulations intended to reduce these contaminants. 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 EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS. In response to court decisions, some elements in the 8-hour Ozone Attainment Plan for San Diego County required updates. CARB staff prepared the 2018 Updates to the California State Implementation Plan to update SIP elements for nonattainment areas throughout the state as needed. The applicable attainment date for San Diego County is in 2021.

In December 2005, SDAPCD prepared a report titled “Measures to Reduce Particulate Matter in San Diego County” to address implementation of Senate Bill (SB) 656 in San Diego County (SB 656 required additional controls to reduce ambient concentrations of PM<sub>10</sub> and PM<sub>2.5</sub>). In the report, SDAPCD evaluates the implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion.

As stated previously, SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations would apply to the project:

- **SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources.** Requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds per day or more of VOC, NO<sub>x</sub>, SO<sub>x</sub>, or PM<sub>10</sub> to be equipped with best available control technology (BACT). For those units with a potential to emit above Air Quality Impact Assessments Trigger Levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 1998).
- **SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes that is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer’s view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).
- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976).

- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** 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 site (SDAPCD 2009).
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** 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 2015).

### City of San Marcos

The City's General Plan (City of San Marcos 2013a) includes various policies related to reducing Air Quality and GHG emissions. Applicable policies include the following:

#### *Land Use and Community Design Element*

**Policy LU-2.1:** Promote compact development patterns that reduce air pollution and automobile dependence and facilitate walking, bicycling, and transit use.

**Policy LU-3.1:** Require that new development and redevelopment incorporate connections and reduce barriers between neighborhoods, transit corridors, and activity centers within the City.

#### *Mobility Element*

**Policy M-2.1:** Work with new development to design roadways that minimize traffic volumes and/or speed, as appropriate within residential neighborhoods; while maintaining the City's desire to provide connectivity on the roadway network (City of San Marcos 2013a).

## 2.3 Regional and Local Air Quality

### 2.3.1 San Diego Air Basin Attainment Designation

Pursuant to the 1990 Clean Air Act amendments, EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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standard, the area is classified as “attainment” for that pollutant. If an area exceeds the standard, the area is classified as “nonattainment” for that pollutant. As previously discussed, these standards are set by EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. 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 meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, calls for the designation of areas as “attainment” or “nonattainment,” but based on the CAAQS rather than the NAAQS. The attainment classifications for the criteria pollutants are outlined in Table 2.

**Table 2**  
**San Diego Air Basin Attainment Classification**

Pollutant	Federal Designation	State Designation
O <sub>3</sub> (1-hour)	Attainment <sup>a</sup>	Nonattainment
O <sub>3</sub> (8-hour – 1997) (8-hour – 2008)	Attainment (maintenance) <b>Nonattainment (moderate)</b>	Nonattainment
NO <sub>2</sub>	Unclassifiable/attainment	Attainment
CO	Attainment (maintenance)	Attainment
SO <sub>2</sub>	Not designated <sup>b</sup>	Attainment
PM <sub>10</sub>	Unclassifiable/attainment	Nonattainment
PM <sub>2.5</sub>	Unclassifiable/attainment	Nonattainment
Lead	Unclassifiable/attainment	Attainment
Sulfates	No federal standard	Attainment
Hydrogen sulfide	No federal standard	Unclassified
Visibility-reducing particles	No federal standard	Unclassified
Vinyl chloride	No federal standard	No designation

**Sources:** EPA 2016b (federal); CARB 2016a (state).

**Notes:** O<sub>3</sub> = ozone; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter.

Attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify; unclassifiable/attainment = meets the standard or is expected to meet the standard despite a lack of monitoring data.

<sup>a</sup> The federal 1-hour standard of 0.12 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 (SIPs).

<sup>b</sup> Federal designations for SO<sub>2</sub> are on hold by EPA; EPA expects to make the designations by December 2017 (EPA 2016c).

In summary, the SDAB is designated as a nonattainment area for the 2008 8-hour O<sub>3</sub> NAAQS. The SDAB is designated as a nonattainment area for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> CAAQS. The portion of the

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

SDAB where the project site is located is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS.

## 2.3.2 Local Ambient Air Quality

SDAPCD operates a network of ambient air monitoring stations throughout San Diego County, which measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The SDAPCD monitors air quality conditions at 11 locations throughout the SDAB. Escondido – East Valley Parkway monitoring station cease to collect data post-2015; thus, due to proximity to the site and similar geographic and climactic characteristics, the El Cajon-Lexington Elementary School and El Cajon-Floyd Smith Drive monitoring station concentrations for all pollutants are considered most representative of the project site. Data for this site was available for 8-hour O<sub>3</sub>, 1-hour O<sub>3</sub>, CO, SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> concentrations. Ambient concentrations of pollutants from 2015 through 2017 are presented in Table 3. The state 8-hour O<sub>3</sub> standards were exceeded in 2016 and 2017. Air quality within the project region was in compliance with both the CAAQS and NAAQS for NO<sub>2</sub>, CO, SO<sub>2</sub>, and PM<sub>10</sub> (NAAQS only) during this monitoring period.

**Table 3**  
**Local Ambient Air Quality Data**

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2015	2016	2017	2015	2016	2017
Ozone (O <sub>3</sub> ) – El Cajon									
Maximum 1-hour concentration	ppm	State	0.12	0.082	0.096	0.096	0	0	0
Maximum 8-hour concentration	ppm	State	0.070	0.067	0.077	0.081	0	3	9
		Federal	0.070	0.067	0.077	0.081	0	3	9
Nitrogen Dioxide (NO <sub>2</sub> ) – El Cajon									
Maximum 1-hour concentration	ppm	State	0.18	0.059	0.057	0.044	0	0	0
		Federal	0.100	0.059	0.057	0.044	0	0	0
Annual concentration	ppm	State	0.030	0.011	0.009	0.010	—	—	—
		Federal	0.053	0.011	0.009	0.010	—	—	—
Carbon Monoxide (CO) – El Cajon									
Maximum 1-hour concentration	ppm	State	20	1.4	1.7	2.0	0	0	0
		Federal	35	1.4	1.7	2.0	0	0	0
Maximum 8-	ppm	State	9.0	1.1	1.3	1.4	0	0	0

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 3**  
**Local Ambient Air Quality Data**

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2015	2016	2017	2015	2016	2017
hour concentration		Federal	9	1.1	1.3	1.4	0	0	0
<i>Sulfur Dioxide (SO<sub>2</sub>) – El Cajon</i>									
Maximum 1-hour concentration	ppm	Federal	0.075	0.012	0.018	0.011	0	0	0
Maximum 24-hour concentration	ppm	Federal	0.14	0.004	0.005	0.004	0	0	0
Annual concentration	ppm	Federal	0.030	0.00011	0.0011	0.00011	—	—	—
<i>Coarse Particulate Matter (PM<sub>10</sub>)<sup>a</sup> – El Cajon</i>									
Maximum 24-hour concentration	µg/m <sup>3</sup>	State	50	48.0	39.0	50.0	0.0 (0)	0.0 (0)	0.0 (0)
		Federal	150	48.0	39.0	50.0	0.0 (0)	0.0 (0)	0.0 (0)
Annual concentration	µg/m <sup>3</sup>	State	20	ND	ND	ND	—	—	—
<i>Fine Particulate Matter (PM<sub>2.5</sub>)<sup>a</sup> – El Cajon</i>									
Maximum 24-hour concentration	µg/m <sup>3</sup>	Federal	35	24.7	19.3	31.8	0.0 (0)	0.0 (0)	0.0 (0)
Annual concentration	µg/m <sup>3</sup>	State	12	8.2	7.4	9.6	—	—	—
		Federal	12.0	8.2	7.4	9.6	—	—	—

Sources: CARB 2016b; EPA 2016b.

Notes: ppm = parts per million by volume; ND = insufficient data available to determine the value; — = not available; µg/m<sup>3</sup> = micrograms per cubic meter.

Data taken from CARB iADAM (<http://www.CARB.ca.gov/adam>) and EPA AirData (<http://www.epa.gov/airdata/>) represent the highest concentrations experienced over a given year.

Daily exceedances for particulate matter are estimated days because PM<sub>10</sub> and PM<sub>2.5</sub> are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM<sub>10</sub>, or 24-hour SO<sub>2</sub>, nor is there a state 24-hour standard for PM<sub>2.5</sub>.

The El Cajon-Floyd Smith Drive monitoring station is located at 10537 Floyd Smith Drive, El Cajon, California.

The El Cajon-Lexington Elementary School monitoring station is located at 533 First Street, El Cajon, California.

2017 data have been released for the El Cajon-Floyd Smith Drive monitoring station; therefore, 2017 data were obtained from the El Cajon-Lexington Elementary School.

<sup>a</sup> Measurements of PM<sub>10</sub> and PM<sub>2.5</sub> are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **2.4 Significance Criteria and Methodology**

### **2.4.1 Thresholds of Significance**

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on Appendix G of the CEQA Guidelines, the project would have a significant impact on air quality if the project would:

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

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the project would have a significant impact on air quality. As part of its air quality permitting process, SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources. SDAPCD sets forth quantitative emission thresholds below which a stationary source would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4 are exceeded.

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 thresholds listed in Table 4 represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality. A project that involves a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 4**  
**San Diego Air Pollution Control District Air Quality Significance Thresholds**

Construction Emissions			
Pollutant	Total Emissions (Pounds per Day)		
Respirable particulate matter (PM <sub>10</sub> )	100		
Fine particulate matter (PM <sub>2.5</sub> )	55		
Oxides of nitrogen (NO <sub>x</sub> )	250		
Sulfur oxides (SO <sub>x</sub> )	250		
Carbon monoxide (CO)	550		
Volatile organic compounds (VOC)	137 <sup>a</sup>		
Operational Emissions			
Pollutant	Total Emissions		
	Pounds per Hour	Pounds per Day	Tons per Year
Respirable particulate matter (PM <sub>10</sub> )	—	100	15
Fine particulate matter (PM <sub>2.5</sub> )	—	55	10
Oxides of nitrogen (NO <sub>x</sub> )	25	250	40
Sulfur oxides (SO <sub>x</sub> )	25	250	40
Carbon monoxide (CO)	100	550	100
Lead and lead compounds	—	3.2	0.6
Volatile organic compounds (VOC)	—	137 <sup>a</sup>	13.7

Source: SDAPCD Rules 1501 and 20.2(d)(2).

<sup>a</sup> VOC threshold based on South Coast Air Quality Management District (SCAQMD) levels per the SCAQMD and the Monterey Bay Air Pollution Control District, which have similar federal and state attainment status to San Diego.

## 2.4.2 Approach and Methodology

### 2.4.2.1 Construction

Emissions from construction of the project were estimated using the California Emissions Estimator Model (CalEEMod)<sup>2</sup> Version 2016.3.2.

For purposes of estimating project emissions, and based on information provided by the applicant and CalEEMod default values, it was estimated that construction of the project would commence in March 2020 and would last approximately 21 months, ending in December 2021. The analysis contained herein is based on the following parameters (duration of phases is approximate):

- Site preparation – 10 days (March 2020–April 2020)

<sup>2</sup> CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria air pollutant and GHG emissions from a variety of land use projects.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

- Grading – 106 days (March 2020–August 2020)
- Building construction – 327 days (October 2020–December 2021)
- Paving – 88 days (July 2020–October 2020)
- Architectural coating – 135 days (June 2021–December 2021)

The construction equipment mix used for estimating the construction emissions of the project is based on CalEEMod default data and is shown in Table 5. For this analysis, it was estimated that heavy construction equipment would operate 5 days a week during project construction.

**Table 5**  
**Construction Scenario Parameters**

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site preparation	4	1	125	Rubber-tired dozers	2	8
				Tractors/loaders/backhoes	2	8
Grading	5	1	625	Excavators	1	8
				Graders	1	8
				Rubber-tired dozers	1	8
				Tractors/loaders/backhoes	3	8
Building construction	152	26	0	Forklifts	3	8
				Tractors/loaders/backhoes	12	8
Paving	15	0	0	Pavers	2	8
				Paving equipment	2	8
				Rollers	2	8
Architectural coating	30	0	0	Air compressors	1	6

Note: See Appendix A for details.

The equipment used in each phase as shown in Table 5 was based on the CalEEMod default equipment mix for each phase of construction. Construction-worker and vendor estimates by construction phase were generated by CalEEMod. Based on the project's grading plans, it was estimated that 78,800 cubic yards of cut and fill would be balanced on site; however, for the purposes of modeling, it was conservatively estimated that 10,000 cubic yards of soil would be exported off site in trucks with a capacity of 16 cubic yards, thus, 625 one-way trips were estimated. Additionally, based on the project's grading plans, it was estimated that 1,000 cubic yards of soil from site clearing would be exported in trucks with a capacity of 8 cubic yards; therefore, 125 one-way trips were estimated.



# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## Blasting

Blasting operations would be required for site preparation. Rock blasting is the controlled use of explosives to excavate, break down, or remove rock. The result of rock blasting is often known as a rock cut. The most commonly used explosives today are ammonium nitrate/fuel oil (ANFO)–based blends due to their lower cost compared to dynamite. The chemistry of ANFO detonation is the reaction of ammonium nitrate with a long-chain alkane to form  $\text{NO}_x$ , carbon dioxide, and water. When detonation conditions are optimal, these gases are the only products. In practical use, such conditions are impossible to attain, and blasts produce moderate amounts of other gases. The EPA’s Compilation of Air Pollutant Emission Factors (AP-42), Section 13.3 – Explosives Detonation (EPA 1980), provided the emissions factors for CO,  $\text{NO}_x$ , and  $\text{SO}_x$  used in this assessment. According to AP-42, “Unburned hydrocarbons also result from explosions, but in most instances, methane is the only species that has been reported” (EPA 1980); methane is not a VOC, and a methane emission factor has not been determined for ANFO.

AP-42 states that CO is the pollutant produced in greatest quantity from explosives detonation. All explosives produce measurable amounts of CO. Particulates are produced as well, but such large quantities of particulate are generated during shattering of the rock and earth by the explosive that the quantity of particulates from the explosive charge cannot be distinguished. Accordingly, AP-42, Section 11.9 – Western Surface Coal Mining (EPA 1998), provided the basis for the  $\text{PM}_{10}$  and  $\text{PM}_{2.5}$  emissions factors. The emissions factors are based on the horizontal area disturbed during blasting. The cubic yards and area to be blasted were provided by the applicant.

It is anticipated that blasting operations would occur during the grading phase. Based on data provided by the applicant, an average of one ton of ANFO would be applied per blast; 2,000 cubic yards of rock would be blasted per blast and 20,000 total cubic yards of rock would be blasted for the project; and a maximum of 2 blasts per day and 10 total blasts for the project.

## Rock Crushing

In addition to blasting emissions, emissions associated with rock crushing were quantified in a separate calculation, since CalEEMod does not account for rock crushing. Emissions factors were obtained from AP-42, Section 11.9.2 – Crushed Stone Processing and Pulverized Mineral Processing (EPA 2004). For transfers to the feed hopper and stockpiles, the “drop” equation in Section 13.2.4 (Aggregate Handling and Storage Piles) of AP-42 (EPA 2006) was used to derive an emissions factor. Based on data provided by the applicant, 30,000 tons of rock would be processed; the rock processing rate would be 750 tons of rock per day; and the total operating days would be 40 days.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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The rock-crushing equipment was assumed to consist of a crusher, screen, and conveyor, and the crushed rock would be stockpiled for future use. Although a single primary crusher and screen may be all that is required, use of a secondary crusher and additional screen would expedite this process. To generate a conservative emissions estimate, it was assumed that a feed hopper, primary and secondary crushers, two screens, and several conveyors for transfers would be used. Particulate emissions from the crushers, screens, and conveyors would be controlled with water sprays.

It is expected that the rock-crushing equipment would be powered by a diesel-engine generator. It was assumed that the engine generator would be rated at 350 horsepower. The engine generator would operate up to 4 hours per day. The VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from the diesel-engine generator were estimated using the off-road-engine load factor and emissions factors from the CalEEMod User's Guide for a typical generator operating in 2020 (the first year of construction). Blasting and rock-crushing emissions calculations are provided in Appendix A.

### **Sewer Option #2 Off-site Improvements**

#### *Blasting*

As described in Section 2.2.2.5, Off-site Improvements, of the Project Description, Sewer Option #2 would require blasting. It is anticipated that Sewer Option #2 blasting operations would occur during the grading phase. Blasting emissions are quantified using AP-42, Section 13.3 – Explosives Detonation (EPA 1980) and AP-42, Section 11.9 – Western Surface Coal Mining (EPA 1998).

Based on data provided by the applicant, an average of one ton of ANFO would be applied per blast; 50 cubic yards of rock would be blasted per blast and 165 total cubic yards of rock would be blasted for the project; and a maximum of 3 blasts per day and 11 total blasts for the project.

#### *Rock Crushing*

Rock crushing would be required for Sewer Option #2, occurring in the grading phase. The same rock-crushing equipment described above would be used for the Sewer Option #2 construction. As described above, emissions factors were obtained from AP-42, Section 11.9.2 – Crushed Stone Processing and Pulverized Mineral Processing (EPA 2004). For transfers to the feed hopper and stockpiles, the “drop” equation in Section 13.2.4 (Aggregate Handling and Storage Piles) of AP-42 (EPA 2006) was used to derive an emissions factor. Based on data provided by the applicant, 200 tons of rock would be processed; the rock processing rate would be 15 tons of rock per day; and the total operating days would be 13 days.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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The diesel-engine generator would operate up to 4 hours per day. The same off-road-engine load factor and emissions factors from the CalEEMod User's Guide for a typical generator operating in 2020 (the first year of construction) as described above is used for the emission estimates.

### *Haul Truck Trips*

It was estimated that 70 one-way haul truck trips would be required to remove the soil off-site. Blasting, rock-crushing, and haul truck trip emissions calculations for Sewer Option #2 are provided in Appendix A.

### **2.4.2.2 Operation**

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

### **Area Sources**

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of residential buildings and on the default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were modeled.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emission factor is based on the VOC content of the surface coatings, and SDAPCD's Rule 67.0.1 (Architectural Coatings) governs the VOC content for interior and exterior coatings (SDAPCD 2015). The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2017). Consistent with the architectural coatings used during the construction phase, the applicant will use architectural coatings with a VOC content of 50

## **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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grams per liter (g/L) for internal reapplication, and exterior architectural coatings would have a VOC content of 100 g/L for any reapplication during operation.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. Emissions associated with potential landscape maintenance equipment were included to conservatively capture potential project operational emission sources.

No hearths or woodstoves would be included in the project design; therefore, they were not included in the CalEEMod analysis.

### **Energy Sources**

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, because criteria pollutant emissions occur at the site of the power plant, which is typically off-site. Therefore, for the purposes of the air quality analysis, the energy source parameters focus on criteria air pollutants generated as a result of natural gas consumption within the built environment. Natural gas consumption is attributed to systems like heating, ventilation, and air conditioning and water heating.

### **Mobile Sources (Motor Vehicles)**

Mobile sources for the project would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. Based on the project-specific traffic report prepared for the project by Linscott, Law & Greenspan, Engineers, the proposed residential development is anticipated to generate eight trips per dwelling unit (LLG 2019), which was assumed for the weekday trip rate. A 5% reduction for proximity to high quality, multimodal Nordahl Station and the Class I Inland Rail Trail bikeway was applied. The California Air Pollution Control Officers Association (CAPCOA) has developed methodologies for quantifying the emission reductions associated with numerous mitigation measures (CAPCOA 2010). Several of the measures would also reduce air pollutant emissions that are related to land use and transportation planning. These measures would reduce vehicle trips and/or trip lengths, enhance walking and bicycles as alternative modes of transportation, enhance availability of transit, and incorporate other

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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approaches. Regarding mobile source emission reduction features relating to land use, it was assumed that the project would involve an increase in access to transit. The project is approximately 0.6 miles from the Sprinter station, which provides light rail access into the nearby cities of Escondido, Vista, and Oceanside. Additionally, the Sprinter connects to the Surfliner and Coaster routes, which provide north–south access to Los Angeles County, Orange County, and the City of San Diego. Providing non-motorized access to multiple job centers through quality transit would reduce the project’s vehicle miles traveled and is included in the CalEEMod vehicle trip estimates (CAPCOA 2010). The project would be providing connectivity by extending the sidewalk to neighboring communities and the Sprinter station.

Accordingly, the 192 dwelling units would generate approximately 1,536 trips per day during the week. Because the default CalEEMod weekday trip rates for multifamily homes differed from the assumed project trip rate, the project weekend trip rates were adjusted. Furthermore, SANDAG’s average trip length of 7.9 miles for residential was used for the analysis (SANDAG 2002). CalEEMod default data, including trip characteristics, variable start information, and emissions factors were conservatively used for the model inputs to estimate daily emissions from proposed vehicular sources. Project-related traffic was assumed to include a mixture of vehicles in accordance with the model outputs for traffic. CalEEMod default emissions factors and vehicle fleet mix were conservatively used for the model inputs to estimate daily emissions from proposed vehicular sources.<sup>3</sup> Emission factors representing the vehicle mix and emissions for 2022 were used to estimate emissions associated with full buildout of the project.

### 2.5 Impact Analysis

***Threshold 1: Would the project conflict with or obstruct implementation of the applicable air quality plan?***

As mentioned in Section 2.3, Regulatory Setting, the SDAPCD is responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the basin—specifically, the State Implementation Plan (SIP) and RAQS.<sup>4</sup> SANDAG is responsible for developing forecasts and data that are used by SDAPCD in preparing the SIP and RAQS. The federal O<sub>3</sub> maintenance plan, which is part of the SIP, was adopted in 2012. The

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<sup>3</sup> Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The default vehicle mix (vehicle class distribution including automobiles, trucks, buses, motorcycles) provided in CalEEMod 2016.3.2, which is based on CARB’s Mobile Source Emissions Inventory model, EMFAC Version 2014, was applied.

<sup>4</sup> For the purpose of this discussion, the relevant federal air quality plan is the Ozone Maintenance Plan (SDAPCD 2012). The RAQS is the applicable plan for purposes of State air quality planning. Both plans reflect growth projections in the basin.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the basin based on the NAAQS. The RAQS was initially adopted in 1991 and is updated every 3 years (most recently in 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O<sub>3</sub>. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions as well as information regarding projected growth in the County as a whole and the cities in the County, to project future emissions and determine 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.

While the SDAPCD and City do not provide guidance regarding the analysis of impacts associated with air quality plan conformance, the County's *Guidelines for Determining Significance and Report and Format and Content Requirements – Air Quality* does discuss conformance with the RAQS (County of San Diego 2007). The guidance indicates that, if the project, in conjunction with other projects, contributes to growth projections that would not exceed SANDAG's growth projections for the City, the project would not be in conflict with the RAQS (County of San Diego 2007). If a project includes development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality. A General Plan Amendment (GPA) is required to re-designate the southern parcel of the project site (APN 228-312-10) from Semi-Rural Residential (SR-1) (as currently designated by the County of San Diego) and Light Industrial (LI) (as designated by the City, as the parcel is within its Sphere of Influence) to Specific Plan Area (SPA). Additionally, a GPA is required to re-designate the northern parcel of the project site (APN 228-312-09) from Low Density Residential (LDR) to SPA.

Based on the existing land use designations of LI, CalEEMod Version 2016.3.2 default trip rates, maximum floor area ratio of 0.6 for the LI land use on the 10.8-acre lot, the existing LI land use would generate 5,740,917 vehicle miles traveled (VMT) annually. The existing LDR land use designation would generate 1,013,859 VMT annually. Thus, the total existing land use would generate 6,754,776 VMT annually. The project's proposed 192 residential units would generate 3,471,675 VMT annually. As a result, the project would generate fewer trips and fewer VMT (and associated emissions) than that allowed under the existing land use for the project site.

The City projects an increase of 3,170 housing units and an increase of 10,180 persons between 2020 and 2035 (SANDAG 2013). The project would only account for 6% of the projected housing units and 6% of the population projected to increase in the City between 2020 and 2035 in the SANDAG Series 13 forecast. The project's proposed growth would be within the growth

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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projections for the City; thus, the project would result in regional growth that is accounted for within the RAQS; thus, at a regional level, it is consistent with the underlying growth forecasts in the SIP and RAQS. Therefore, implementation of the proposed project would not conflict with the RAQS or SIP and proposed development would be consistent with the growth in the region. Furthermore, the project is an infill site surrounded by existing development and is linked to the community through a multi-modal transportation system to include roads, alternative transportation, pedestrian, and bicycle mobility options. The project's proximity to Interstate 15 and State Route 78 and the Nordahl North County Transit District (NCTD) transit station make for an ideal connectivity to a regional transportation network, employment centers, and shopping and services. Impacts would be **less than significant**.

***Threshold 2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

In analyzing cumulative impacts from the project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the basin is designated as nonattainment 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, are in excess of established thresholds. However, the 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).

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 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.

The SDAB has been designated as a federal nonattainment area for O<sub>3</sub> and a state nonattainment area for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. PM<sub>10</sub> and PM<sub>2.5</sub> emissions associated with construction generally

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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result in near-field impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the basin. As discussed previously, the emissions of all criteria pollutants would be below the significance levels. Construction would be short term and temporary in nature. Once construction is completed, construction-related emissions would cease. Operational emissions generated by the project would not exceed the significance thresholds for VOCs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>, and would not cause a significant impact. As such, the project would result in less than significant impacts to air quality relative to operational emissions.

Construction of the project would result in the temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, blasting, rock crushing, off-site improvements, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emissions levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions would primarily result from grading and site preparation activities. NO<sub>x</sub> and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Construction emissions were calculated using CalEEMod for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during each year of construction (2020 through 2021). Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the applicant and is intended to represent a reasonable scenario based on the best information available. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.4.2.1, Construction, of this report. The information contained in Appendix A (CalEEMod Output Files) was used as CalEEMod inputs.

Implementation of the project would generate temporary air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, rock crushing, blasting, architectural coatings, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The project is subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that the project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) that may be generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least three times daily, resulting in an approximately 61%



## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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reduction of particulate matter. Compliance with Rule 55 would be required as a standard condition of project approval or for issuance of a grading permit.

Exhaust from internal combustion engines used by construction equipment, hauling trucks (dump trucks), vendor trucks (delivery trucks), and worker vehicles would result in temporary emissions of NO<sub>x</sub>, VOC, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD 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 2015). The project would comply with SDAPCD Rule 67.0.1 through the incorporation of low-VOC architectural coatings. The VOC content assumed for the analysis includes 50 g/L for interior coatings and 100 g/L for exterior coatings.

Table 6 shows the estimated maximum daily construction emissions associated with the construction of the project. Details of the emissions calculations are provided in Appendix A of this document.

**Table 6**  
**Estimated Maximum Daily Construction Emissions**

Year	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>Pounds per Day</i>					
2020 (Construction)	6.95	63.78	197.14	4.13	8.95	4.41
2020 (Sewer Option #2)	0.31	55.12	203.34	6.01	0.16	0.12
2020 Total	7.26	118.90	400.48	10.14	9.12	4.53
2021 Total	22.50	39.95	46.85	0.09	4.61	2.64
<b>Maximum daily emissions</b>	<b>22.50</b>	<b>118.90</b>	<b>400.48</b>	<b>10.14</b>	<b>9.12</b>	<b>4.53</b>
<i>Emission threshold</i>	75	250	550	250	100	55
<b>Threshold exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Notes:** VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns.

See Appendix A for output files and modeling details.

The values shown are the maximum summer or winter daily emissions results from CalEEMod and provided in Appendix A, Blasting and rock crushing was assumed to occur in the grading phase, which includes utility undergrounding (2020). The maximum emissions assumes compliance with SDAPCD Rule 67.0.1, Architectural Coatings, and SDAPCD Rule 55, Fugitive Dust Control. Sewer Option #2 off-site improvements was assumed to occur in the grading phase (2020). Sewer Option #2 construction emissions include blasting, rock crushing, generator, and haul truck trip emissions.

As shown in Table 6, daily construction emissions would not exceed the significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

Following the completion of construction activities, the project would generate VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from mobile sources, including vehicular traffic generated by residents of the project; area sources, including the use of landscaping equipment and consumer products; and from architectural coatings.

Table 7 presents the maximum daily emissions associated with the operation of the project after all construction has been completed. The values shown for motor vehicles and area sources are the maximum summer or winter daily emissions results from CalEEMod.

**Table 7**  
**Estimated Project Maximum Daily Operational Emissions**

Emission Source	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>pounds per day</i>					
Area	7.55	0.18	15.87	0.00	0.09	0.09
Energy	0.05	0.47	0.20	0.00	0.04	0.04
Mobile	2.34	9.56	25.43	0.09	7.64	2.09
<b>Total</b>	<b>9.95</b>	<b>10.21</b>	<b>41.50</b>	<b>0.09</b>	<b>7.76</b>	<b>2.21</b>
<i>Emission threshold</i>	<i>55</i>	<i>250</i>	<i>550</i>	<i>250</i>	<i>100</i>	<i>55</i>
<b>Threshold exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Notes:** VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns. See Appendix A for output files and modeling details.

As shown in Table 7, the daily operational emissions from the project would not exceed the significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

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. Development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would result in emissions that are accounted for. Projects that conform to the permitted land use, or result in a less emissions-intensive use, and are therefore accounted for in the SIP and RAQS, would not be considered to result in cumulatively considerable impacts from operational emissions. As stated previously, the project would result in fewer emissions than buildout of the existing permitted land use that was anticipated by the RAQS and therefore would not result in significant regional emissions that are not accounted for within the RAQS. As a result, the project would not result in a cumulatively considerable contribution to regional O<sub>3</sub> concentrations or other criteria pollutant emissions. Therefore, the project's cumulative impacts would be **less than significant**.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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### ***Threshold 3: Would the project expose sensitive receptors to substantial pollutant concentrations?***

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. People most likely to be affected by air pollution, as identified by CARB, include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases; however, for the purposes of this analysis, residents are also considered sensitive receptors. As such, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes.

### **Health Impacts of Toxic Air Contaminants**

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or hazardous air pollutants. State law has established the framework for California’s TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs. The greatest potential for TAC emissions during construction would be diesel particulate emissions from heavy-duty equipment operations and heavy-duty trucks, and the associated health impacts to sensitive receptors. The following measures are required by state law to reduce diesel particulate emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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The greatest potential for TAC emissions during construction would be DPM emissions from heavy-duty equipment operations and heavy-duty trucks during construction of the project and the associated health impacts to sensitive receptors.

As shown in Table 6, Estimated Maximum Daily Construction Emissions, maximum daily particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>) emissions generated by construction equipment operation and haul-truck trips (exhaust particulate matter, or DPM), combined with fugitive dust generated by equipment operation and vehicle travel, would be below the SDAPCD significance thresholds. Moreover, total construction of the project would last less than 2 years, after which project-related TAC emissions would cease. Thus, the project would not result in a long-term (i.e., 9-year, 30-year, or 70-year) source of TAC emissions. No residual TAC emissions and corresponding cancer risk are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of the project. No emissions for criteria pollutants exceed the SDAPCD significance thresholds. A wind rose is provided on Figure 1 for the Escondido meteorological station (station ID 53120) located in the City of San Marcos. The closest sensitive receptors are located to the west and north of the project site; however, the wind rose shows that the wind would predominantly blow in the easterly direction. Therefore, the exposure of project-related TAC emission impacts to sensitive receptors would be less than significant because the construction of the project would be short-term and cease upon completion, the wind rose shows the wind direction would blow from west to east in the opposite direction of the sensitive receptors, the project construction emissions would not exceed the SDAPCD significance thresholds, and operation of the project would not result in long-term sources of TAC emissions. The project would also not result in substantial DPM emissions during construction and operation and therefore, would not result in significant health effects related to DPM exposure.

Additionally, CARB has published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005), which identifies certain types of facilities or sources that may emit substantial quantities of TACs and therefore could conflict with sensitive land uses, such as “schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities.” The *Air Quality and Land Use Handbook* is a guide for siting of new sensitive land uses, but it does not mandate specific separation distances to avoid potential health impacts. The enumerated facilities or sources include the following:

- High-traffic freeways and roads
- Distribution centers
- Rail yards

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

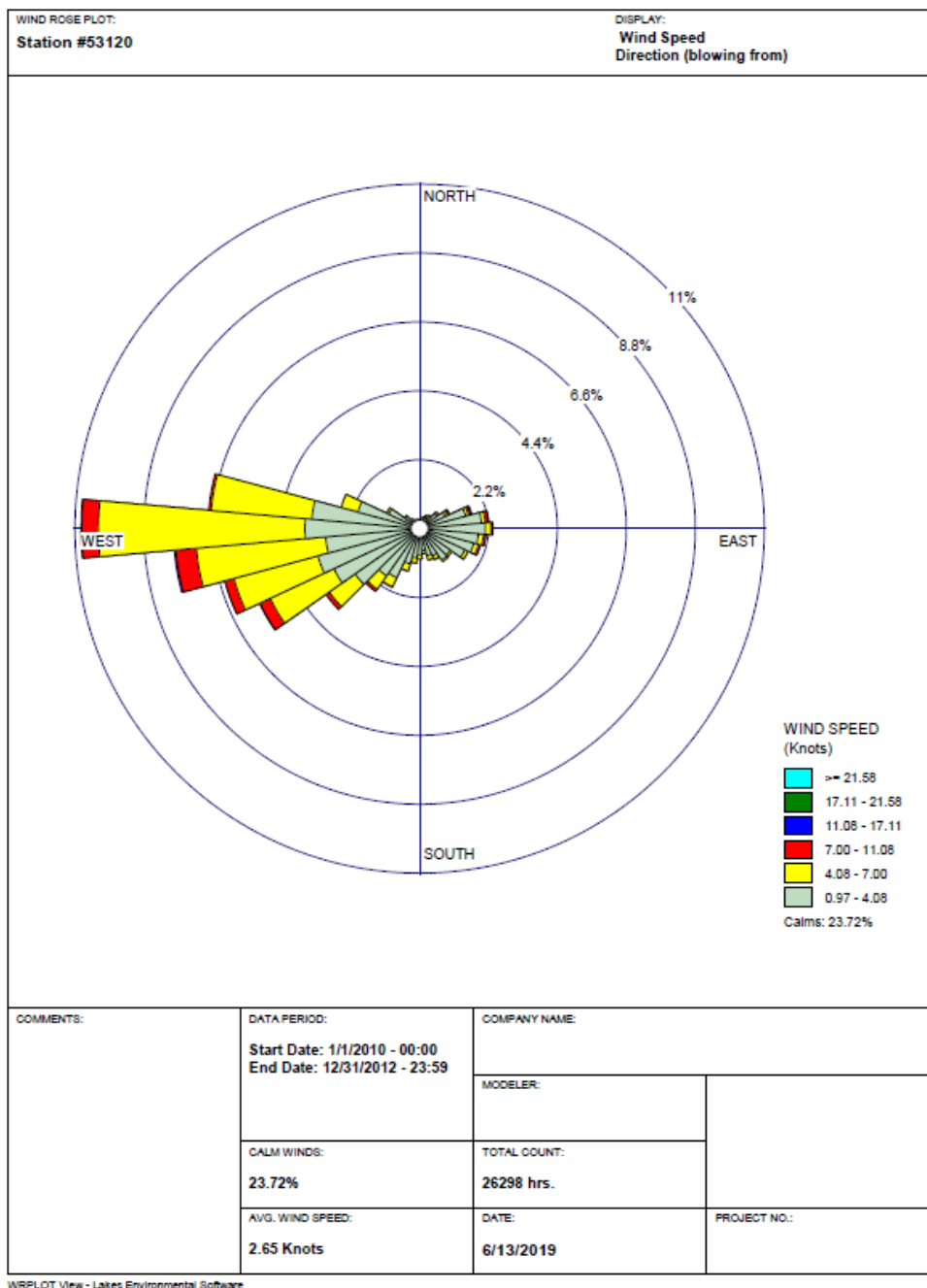
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- Ports
- Refineries
- Chrome plating facilities
- Dry cleaners
- Large gas-dispensing facilities

CARB recommends that sensitive receptors not be located downwind or in proximity to such sources to avoid potential health hazards. The project is located near high-traffic roadways (Interstate 15 and SR-78); however, the project site is not located within the recommended siting distance as defined by CARB. The project is located approximately 1,700 feet south from SR-78 and 7,800 feet west of Interstate 15, beyond the 1,000-foot siting recommendation by CARB. Therefore, the project would not generate substantial TAC emissions that would conflict with surrounding sensitive receptors and would not expose residents to TAC emissions from the surrounding high-traffic roadways. Impacts would be **less than significant**.

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

Figure 1. Wind Rose of Meteorological Data



Source: SDAPCD 2019.

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## Health Impacts of Carbon Monoxide

As described previously, exposure to high concentrations of CO can result in dizziness, fatigue, chest pain, headaches, and impairment of central nervous system functions. Mobile-source impacts, including those related to CO, occur essentially on two scales of motion. Regionally, project-related construction travel would add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SDAB. Locally, construction traffic would be added to the roadway system in the vicinity of the project site. Although the SDAB is currently an attainment area for CO, there is a potential for the formation of microscale CO “hotspots” to occur immediately around points of congested traffic. Hotspots can form if such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and/or is operating on roadways already crowded with non-project traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

CO transport is extremely limited and CO disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors such as residents, school children, hospital patients, and the elderly. Typically, high CO concentrations are associated with urban roadways or intersections operating at an unacceptable level of service (LOS). Projects contributing to adverse traffic impacts may result in the formation of CO hotspots.

To verify that the project would not cause or contribute to a violation of the CO standards, a screening evaluation of the potential for CO hotspots was conducted. The California Department of Transportation (Caltrans) and the University of California, Davis, Institute of Transportation Studies’ *Transportation Project-Level Carbon Monoxide Protocol* (CO Protocol) (Caltrans 2010) was followed. CO hotspots are typically evaluated when (1) the LOS of an intersection or roadway decreases to LOS E or worse; (2) signalization and/or channelization is added to an intersection; and (3) sensitive receptors such as residences, schools, and hospitals are located in the vicinity of the affected intersection or roadway segment. Additionally the SDACPD provides an additionally screening threshold of 3,000 peak trips (SDAPCD 2007).

The traffic report prepared for the project (LLG 2019) analyzed Existing, Existing Plus Project, Existing Plus Cumulative Projects, Existing Plus Cumulative Projects Plus Project Near Term (2021), and General Plan (Year 2035) Cumulative conditions at 11 existing intersections near the project site. The results of the LOS assessment show that under Existing Plus Project conditions, 2 of the 11 study intersections are forecast to operate at unacceptable LOS (LOS E or worse) during the peak hours with a volume over 3,000 trips.

## **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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As shown in Appendix B, the two key study intersections according to the criteria above are (1) Rancheros Drive and SR-78 westbound ramp (LOS F in AM/PM peak hours); and (2) Mission Road and Nordahl Road (LOS D/E in AM/PM peak hours). The remaining key intersections are projected to operate at acceptable LOS conditions in the Existing Plus Project scenario.

The screening evaluation presents LOS and whether a quantitative CO hotspots analysis may be required. According to the CO Protocol, there is a cap on the number of intersections that need to be analyzed for any one project. For a single project with multiple intersections, only the three intersections representing the worst LOS ratings of the project, and, to the extent they are different intersections, the three intersections representing the highest traffic volumes, need be analyzed. For each intersection failing a screening test as described in this protocol, an additional intersection should be analyzed (Caltrans 2010).

Based on the CO hotspot screening evaluation (Appendix B), Rancheros Road and SR-78 has nine links and is an all-way stop-controlled intersection. Mission Road and Nordahl Road has 16 links and is a signalized control. Both intersections were determined to have higher PM peak hour volumes and therefore were analyzed. The potential impact of the project on local CO levels was assessed at these intersections with the Caltrans CL4 interface based on the California LINE Source Dispersion Model (CALINE4), which allows microscale CO concentrations to be estimated along each roadway corridor or near intersections (Caltrans 1998a).

The emissions factor represents the weighted average emissions rate of the local San Diego County vehicle fleet expressed in grams per mile per vehicle. Consistent with the traffic scenario, emissions factors for 2021 were used. Emissions factors were predicted by EMFAC2014 based on a 5-mile-per-hour average speed for all of the intersections for approach and departure segments. The hourly traffic volume anticipated to travel on each link, in units of vehicles per hour, was based on information provided by the traffic consultant and modeling assumptions are outlined in Appendix B.

Four receptor locations were modeled at each intersection to determine CO ambient concentrations. A receptor was assumed on the sidewalk at each corner of the modeled intersections, to represent the future possibility of extended outdoor exposure. CO concentrations were modeled at these locations to assess the maximum potential CO exposure that could occur in 2021. A receptor height of 5.9 feet (1.8 meters) was used in accordance with Caltrans recommendations for all receptor locations (Caltrans 1998b).

The SCAQMD guidance recommends using the highest 1-hour measurement in the last 3 years as the projected future 1-hour CO background concentration for the analysis. A CO concentration of 3.8 parts per million by volume (ppm) was recorded in 2014 for the Escondido monitoring station in San Diego and was assumed in the CALINE4 model for 2021 (EPA 2016b). To estimate an 8-



## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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hour average CO concentration, a persistence factor of 0.69, as calculated based on SCAQMD guidance (SCAQMD 1993), was applied to the output values of predicted concentrations in ppm at each of the receptor locations. Model input and output data are available in Appendix B.

The maximum CO concentration predicted for the 1-hour averaging period at the studied intersections would be 4.1 ppm, which is below the 1-hour CO CAAQS of 20 ppm (CARB 2014a). The maximum predicted 8-hour CO concentration of 2.84 ppm at the studied intersections would be below the 8-hour CO CAAQS of 9.0 ppm (CARB 2016b). Neither the 1-hour nor 8-hour CAAQS would be equaled or exceeded at any of the intersections studied. Accordingly, the project would not cause or contribute to violations of the CAAQS and would not result in exposure of sensitive receptors to localized high concentrations of CO. CO tends to be a localized impact associated with congested intersections. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant. As such, impacts to sensitive receptors with regard to potential CO hotspots resulting from project contribution to cumulative traffic-related air quality impacts would be **less than significant**.

### Health Impacts of Criteria Air Pollutants

Construction and operation of the project would not result in emissions that exceed the SDAPCD significance thresholds for any criteria air pollutants including VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. Regarding VOCs, some VOCs would be associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the SDAPCD significance thresholds as shown in Table 3, Local Ambient Air Quality Data. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, the project would use low-VOC architectural coatings that would comply with SDAPCD Rule 67.0.1, which restricts the VOC content of coatings for both construction and operational applications (SDAPCD 2015).

In addition, VOCs and NO<sub>x</sub> are precursors to O<sub>3</sub>, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by the EPA as an attainment area for the 1-hour O<sub>3</sub> NAAQS standard). The health effects associated with O<sub>3</sub>, as discussed in Section 2.2, are generally associated with reduced lung function. The contribution of VOCs and NO<sub>x</sub> to regional ambient O<sub>3</sub> concentrations is the result of complex photochemistry. The increases in O<sub>3</sub> concentrations in the SDAB due to O<sub>3</sub> precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O<sub>3</sub> concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O<sub>3</sub> ambient air quality standards tend to occur between April and October when solar radiation is highest.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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The holistic effect of a single project's emissions of O<sub>3</sub> precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO<sub>x</sub> emissions associated with project construction could minimally contribute to regional O<sub>3</sub> concentrations and the associated health impacts. Due to the minimal contribution during construction and operation health impacts would be considered less than significant.

Similar to O<sub>3</sub>, construction of the project would not exceed the SDAPCD significance thresholds for PM<sub>10</sub> or PM<sub>2.5</sub> and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter. Due to the minimal contribution of particulate matter during construction and operation, health impacts would be considered less than significant.

Regarding nitrogen dioxide, according to the construction emissions analysis, construction of the project would not contribute to exceedances of the NAAQS and CAAQS for NO<sub>2</sub>. As described in Section 2.2, NO<sub>2</sub> and NO<sub>x</sub> health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. Off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the project would not require any stationary emission sources that would create substantial, localized NO<sub>x</sub> impacts. Therefore, health impacts would be considered less than significant.

In summary, construction and operation of the project would not result in exceedances SDAPCD significance thresholds for criteria pollutants. The VOC and NO<sub>x</sub> emissions, as described previously, would minimally contribute to regional O<sub>3</sub> concentrations and the associated health effects. In addition to O<sub>3</sub>, NO<sub>x</sub> emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO<sub>2</sub>. As shown in Table 3, the existing NO<sub>2</sub> concentrations in the area are well below the NAAQS and CAAQS standards. Thus, the project's operational NO<sub>x</sub> emissions are not expected to result in exceedances of the NO<sub>2</sub> standards or contribute to the associated health effects. PM<sub>10</sub> and PM<sub>2.5</sub> would not contribute to potential exceedances of the NAAQS and CAAQS and would not obstruct the SDAB from coming into attainment for these pollutants and would not contribute to significant health effects associated with particulates. Therefore, health impacts associated with criteria air pollutants would be considered **less than significant**.

### Valley Fever Exposure

As discussed in Section 2.1.4, Pollutants and Effects, Valley Fever is not highly endemic to San Diego County, and within San Diego County, the incidence rate in the project area is below the County average and the statewide average. Construction of the project would comply with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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Strategies the Project would implement to comply with SDAPCD Rule 55 and control dust include watering three times per day, using magnesium chloride for dust suppression on unpaved roads, and limiting speed on unpaved roads to 15 miles per hour.

Based on the low incidence rate of Coccidioidomycosis in San Diego County, and the project's implementation of dust control strategies, it is not anticipated that earth-moving activities during project construction would result in exposure of nearby sensitive receptors to Valley Fever. Therefore, the project would have a **less-than-significant** impact with respect to Valley Fever exposure for sensitive receptors.

***Threshold 4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered **less than significant**.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (CARB 2005). The project would not engage in any of these activities. Moreover, typical odors generated from operation of the project would primarily include vehicle exhaust generated by residents, as well as through the periodic use of landscaping or maintenance equipment. Therefore, the project would result in an odor impact that is considered to be **less than significant**.

### 2.6 Mitigation Measures

The project would not result in significant impacts; therefore, no mitigation is required.

# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **3 GREENHOUSE GAS EMISSIONS**

### **3.1 Environmental Setting**

#### **3.1.1 Climate Change Overview**

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

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

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and is the most significant driver of observed climate change (IPCC 2013; EPA 2017a). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further in Section 3.1.5, Potential Effects of Climate Change.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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### 3.1.2 Greenhouse Gases and other Climate Forcing Substances

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. GHGs include, but are not limited to, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), O<sub>3</sub>, water vapor, hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).<sup>5</sup> Some GHGs, such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO<sub>2</sub>, include fluorinated gases, such as HFCs, HCFCs, PFCs, and SF<sub>6</sub>, which are associated with certain industrial products and processes. A summary of the most common GHGs and their sources is included in the following text.<sup>6</sup> Also included is a discussion of other climate forcing substances.

**Carbon Dioxide.** CO<sub>2</sub> is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO<sub>2</sub> include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic outgassing; and decomposition of dead organic matter. Human activities that generate CO<sub>2</sub> are from the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

**Methane.** CH<sub>4</sub> is produced through both natural and human activities. CH<sub>4</sub> is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

**Nitrous Oxide.** N<sub>2</sub>O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N<sub>2</sub>O. Sources of N<sub>2</sub>O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N<sub>2</sub>O as a propellant (such as in rockets, racecars, and aerosol sprays).

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<sup>5</sup> California Health and Safety Code, Section 38505, identifies seven GHGs that CARB is responsible for monitoring and regulating to reduce emissions: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, HFCs, PFCs, and nitrogen trifluoride (NF<sub>3</sub>).

<sup>6</sup> The descriptions of GHGs are summarized from IPCC Second Assessment Report (IPCC 1995), IPCC Fourth Assessment Report (IPCC 2007), CARB's Glossary of Terms Used in GHG Inventories (CARB 2015a), and EPA's Glossary of Climate Change Terms (EPA 2016d).

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF<sub>6</sub> is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** Nitrogen trifluoride (NF<sub>3</sub>) is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

**Chlorofluorocarbons.** CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere) and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric O<sub>3</sub>.

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

**Black Carbon.** Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify the global warming potential. DPM emissions are a major source of black carbon and are TACs that have been regulated and controlled in California for several decades to protect public health. In relation to declining DPM from CARB's regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014b).

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

**Ozone.** Tropospheric O<sub>3</sub>, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O<sub>3</sub>, which is created by the interaction between solar ultraviolet radiation and molecular oxygen (O<sub>2</sub>), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O<sub>3</sub>, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

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

### 3.1.3 Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017b). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO<sub>2</sub>; therefore, GWP-weighted emissions are measured in MT CO<sub>2</sub>e.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

The current version of CalEEMod (Version 2016.3.2) assumes that the GWP for CH<sub>4</sub> is 25 (so emissions of 1 MT of CH<sub>4</sub> are equivalent to emissions of 25 MT of CO<sub>2</sub>), and the GWP for N<sub>2</sub>O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007).

### 3.1.4 Sources of Greenhouse Gas Emissions

Per the EPA's *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2015* (2017b), total U.S. GHG emissions were approximately 6,586.7 million metric tons (MMT) CO<sub>2</sub>e in 2015. The primary GHG emitted by human activities in the United States was CO<sub>2</sub>, which represented approximately 82.2% of total GHG emissions (5,411.4 MMT CO<sub>2</sub>e). The largest source of CO<sub>2</sub>, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.3% of CO<sub>2</sub> emissions in 2015 (5,049.8 MMT CO<sub>2</sub>e). Relative to 1990, gross United States GHG emissions in 2015 are higher by 3.5%; down from a high of 15.5% above 1990 levels in 2007. GHG emissions decreased from 2014 to 2015 by 2.3% (153.0 MMT CO<sub>2</sub>e) and overall, net emissions in 2015 were 11.5% below 2005 levels (EPA 2017b).

According to California's 2000–2015 GHG emissions inventory (2017 edition), California emitted 440.36 MMT CO<sub>2</sub>e in 2015, including emissions resulting from out-of-state electrical generation (CARB 2017a). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high GWP substances, and recycling and waste. The California GHG emission source categories (as defined in CARB's 2008 *Climate Change Scoping Plan: A Framework for Change* (Scoping Plan)) and their relative contributions in 2015 are presented in Table 8.

**Table 8**  
**Greenhouse Gas Emissions Sources in California**

Source Category	Annual GHG Emissions (MMT CO <sub>2</sub> e)	Percent of Total <sup>a</sup>
Transportation	164.63	37%
Industrial uses	91.71	21%
Electricity generation <sup>b</sup>	83.67	19%
Residential and commercial uses	37.92	9%
Agriculture	34.65	8%
High global warming potential substances	19.05	4%
Recycling and waste	8.73	2%
<b>Totals</b>	<b>440.36</b>	<b>100%</b>

Source: CARB 2017b.

Notes: GHG = greenhouse gas; MMT CO<sub>2</sub>e = million metric tons of carbon dioxide equivalent per year. Emissions reflect 2014 California GHG inventory.

<sup>a</sup> Percentage of total has been rounded and total may not sum due to rounding.

<sup>b</sup> Includes emissions associated with imported electricity, which account for 36.51 MMT CO<sub>2</sub>e.



## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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### 3.1.5 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 IPCC Synthesis Report indicated that warming of the climate system is unequivocal, and many of the observed changes since the 1950s are unprecedented. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice have, and rising sea levels (IPCC 2014).

In California, climate change impacts have the potential to affect sea level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply (CCCC 2006). The primary effect of global climate change has been a 0.2°C (0.36°F) rise in average global tropospheric temperature per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The average temperatures in California have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

An increase in annual average temperature is a reasonably foreseeable effect of climate change. Observed changes over the last several decades across the western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada (CCCC 2012). By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1°F to 8.6°F, depending on emissions levels. Springtime warming—a critical influence on snowmelt—will be particularly pronounced. Summer temperatures will rise more than winter temperatures, and the increases will be greater in inland California, compared to the coast. Heat waves will be more frequent, hotter, and longer. There will be fewer extremely cold nights (CCCC 2012). A decline of Sierra Nevada snowpack, which accounts for approximately half of the surface water storage in California, by 30% to as much as 90% is predicted over the next 100 years (CAT 2006).

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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Model projections for precipitation over California continue to show the Mediterranean pattern of wet winters and dry summers with seasonal, year-to-year, and decade-to-decade variability. For the first time, however, several of the improved climate models shift toward drier conditions by the mid-to-late twenty-first century in Central California, and most notably, in Southern California. By the late century, all projections show drying, and half of them suggest 30-year average precipitation will decline by over 10% below the historical average (CCCC 2012).

## 3.2 Regulatory Setting

### 3.2.1 Federal

**Massachusetts v. EPA.** In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>—in the atmosphere threaten the public health and welfare of current and future generations. This is the “endangerment finding.”
- The Administrator further found the combined emissions of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the “cause or contribute finding.”

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

**Energy Independence and Security Act.** The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
2. Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

### *Federal Vehicle Standards.*

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

On September 27, 2019, EPA and NHTSA published the “Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program.” (84 Fed. Reg. 51,310), which became effective November 26, 2019. The Part One Rule revokes California’s authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. The Part One Rule also impacted some of the underlying assumptions in the CARB EMFAC2014 and EMFAC2017 models for criteria air pollutant emissions from gasoline light-duty vehicles, which CARB released off-model adjustment factors for EMFAC’s criteria air pollutants estimation on November 20, 2019, primarily for use in federal Clean Air Act conformity demonstration analyses. CARB expects Part Two of these regulations to be adopted by the EPA and NHTSA later in the fall of 2019. However, because CARB does not know the full impacts of these rules until Part Two is released, no off-model adjustments factors are available for GHG emissions at this time. In addition, the EMFAC off-model adjustments have not yet been incorporated into CalEEMod. This issue is evolving as California and 22 other states, as well as the District of Columbia and two cities, filed suit against the EPA over the vehicle waiver revocation on November 15, 2019 and a petition for reconsideration of the rule was filed on November 26, 2019 by California and 22 other states, the District of Columbia, and four cities.

### **3.2.2 State**

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

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## State Climate Change Targets

**Executive Order S-3-05.** EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

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

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

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

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
2. Achieving a statewide renewable energy mix of 33%.
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions.
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR 95480 et seq.).
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15% from then levels (2008) by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state's 1990 emissions level, using more recent global warming potentials identified by the IPCC, from 427 MMT CO<sub>2</sub>e to 431 MMT CO<sub>2</sub>e (CARB 2014).

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. The governor called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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summer of 2016, the legislature affirmed the importance of addressing climate change through passage of SB 32.

In December 2017, CARB adopted California's 2017 Climate Change Scoping Plan (2017 Scoping Plan) for public review and comment (CARB 2017). The 2017 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the state's climate change priorities to 2030 and beyond. The strategies' known commitments include implementing renewable energy and energy efficiency (including the mandates of SB 350), increasing stringency of the LCFS, implementing measures identified in the Mobile Source and Freight Strategies, implementing measures identified in the proposed Short-Lived Climate Pollutant Reduction Strategy, and increasing stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%.

When discussing project-level GHG emissions reduction actions and thresholds in the context of the California Environmental Quality Act (CEQA), the 2017 Scoping Plan states that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development" for project-level CEQA analysis, but also recognizes that such a standard may not be appropriate or feasible for every development project. The 2017 Scoping Plan further provides that "the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."

**Executive Order B-30-15.** EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050, as set forth in EO S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO<sub>2</sub>e. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. Sector-specific agencies in transportation, energy, water, and forestry were required to prepare GHG reduction plans by September 2015, followed by a report on action taken in relation to these plans in June 2016. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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***Senate Bill 32 and Assembly Bill 197.*** SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction targets; make changes to CARB's membership, and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and, requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

***Senate Bill 605 and Senate Bill 1383.*** SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state; and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. The Short-Lived Climate Pollutants Reduction Strategy was approved by CARB in March 2017, which lays out a range of options to reduce short-lived climate pollutant emissions in California, including regulations, incentives, and other market-supporting activities. SB 1383 also establishes specific targets for the reduction of short-lived climate pollutants (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its *Short-Lived Climate Pollutant Reduction Strategy* in March 2017. This strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

### **Building Energy**

***Title 24, Part 6.*** Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. The California Energy Commission (CEC) is required by law to adopt standards every 3 years that are cost effective for homeowners over the 30-year lifespan of a building. These standards are updated to consider and incorporate new energy efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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The 2016 Title 24 standards are the currently applicable building energy efficiency standards, and became effective on January 1, 2017. The 2016 Title 24 standards will further reduce energy used and associated GHG emissions. In general, single-family homes built to the 2016 standards are anticipated to use about 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards (CEC 2017).

The 2019 Standards (such as the requirement for solar photovoltaic systems on all residential development, encourage demand responsive technologies) will continue to improve upon the 2016 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 Standards will go into effect on January 1, 2020. Residential buildings built under the 2019 Title 24 Standards would use about 53% less energy than those built under the 2016 Title 24 Standards (CEC 2018).

***Title 24, Part 11.*** In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2016 standards became effective on January 1, 2017. The mandatory standards require the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance
- 65% of construction and demolition waste must be diverted from landfills
- Mandatory inspections of energy systems to ensure optimal working efficiency
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations
- Low-pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards



## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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The CALGreen 2019 standards will continue to improve upon the 2016 CALGreen standards, and will go into effect on January 1, 2020.

**Title 20.** Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

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

### Renewable Energy and Energy Procurement

SB 1078 (2002) established the RPS program, which requires an annual increase in renewable generation by the utilities. Initially, the RPS required utilities to obtain 20% of their power from renewable sources by 2010. SB X1-2 (2011) subsequently expanded the RPS by establishing that 33% of the total electricity sold to retail customers in California per year by December 31, 2020, and in subsequent years, be secured from qualifying renewable energy sources. SB 350 (2015) further expanded the RPS by establishing that 50% of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. And, SB 100 (2018) has further accelerated the RPS, requiring achievement of a 50% RPS by December 31, 2026 and a 60% RPS by December 31, 2030. SB 100 also established a new state policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100% of electricity retail sales and 100% of electricity procured to serve all state agencies by December 31, 2045.

Under the program, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location.

### Mobile Sources

**State Vehicle Standards.** AB 1493 requires CARB to set GHG emission standards for passenger vehicles and EO S-1-07 sets a declining Low Carbon Fuel Standard to reduce the carbon intensity of California passenger vehicle fuels. The Advanced Clean Cars Program is an emissions control program to reduce smog-forming pollution, GHG emissions, promote clean cars, and provide fuels for clean cars. EO B-16-12 supports and facilitates development and distribution of Zero Emissions Vehicles. As explained under the “Federal Vehicle Standards” description above, EPA and NHTSA approved the SAFE Vehicles Rule Part One, which revoked California’s authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. As the EPA rule is the subject of pending legal challenges and no GHG adjustment factors have been issued for EMFAC by CARB, this analysis continues to utilize the best available information at this time, as set forth in EMFAC.

**Executive Order S-1-07.** Issued on January 18, 2007, EO S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO<sub>2</sub>e grams per unit of fuel energy sold in California. The initial target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The Low Carbon Fuel Standard was subsequently amended in 2018 to require a 20% reduction in carbon intensity by 2030. This new requirement aligns with the California’s overall 2030 target of reducing climate changing emissions 40% below 1990 levels by 2030, set by SB 32. CARB has adopted implementing regulations for both the 10% and 20% carbon intensity reduction targets.

**Senate Bill 375.** SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations are then responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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Pursuant to California Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not (1) regulate the use of land; (2) supersede the land use authority of cities and counties; or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets adopted for SANDAG in 2010 are a 7% reduction in per capita passenger vehicle GHG emissions by 2020 and a 13% reduction by 2035, measured relative to 2005 GHG emissions. In 2018, CARB adopted the second round of SB 375 reduction targets, and increased SANDAG's 2020 target to a 15% reduction in per capita passenger vehicle GHG emissions and the 2035 target to a 19% reduction, using the same 2005 baseline (CARB 2019).

SANDAG completed and adopted its *2050 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) in October 2011. In November 2011, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others (*Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 3 Cal. 5th 497). regarding analysis of EO S-3-05's 2050 goal of an 80% reduction in GHG emissions from 1990 levels. The Supreme Court of California held that the EIR at issue was sufficient to inform the public, based on the information available at the time, about the regional plan's GHG impacts and its potential inconsistency with state climate change goals without including an explicit analysis of the consistency of projected 2050 GHG emissions with the goals in the executive order.

In 2015, SANDAG adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines and no subsequent litigation challenge was filed. More specifically, in October 2015, SANDAG adopted *San Diego Forward: The Regional Plan* (Regional Plan; SANDAG 2015). Like the 2050 RTP/SCS, the Regional Plan meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

***Advanced Clean Cars Program.*** In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2011). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The Zero Emissions Vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years. The Clean Fuels Outlet regulation will ensure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

**Executive Order B-16-12.** EO B-16-12 (2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution ZEVs. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80% less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on ZEVs that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

**Senate Bill 350.** In 2015, SB 350 – the Clean Energy and Pollution Reduction Act – was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see California Public Utilities Code, Section 740.12).

### **Solid Waste**

**Assembly Bill 939 and Assembly Bill 341.** In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Section 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020.

Increasing the amount of commercial solid waste that is recycled, reused, or composted will reduce GHG emissions primarily by (1) reducing the energy requirements associated with the extraction, harvest, and processing of raw materials and (2) using recyclable materials that require less energy than raw materials to manufacture finished products (CalRecycle 2015). Increased diversion of organic materials (green and food waste) will also reduce GHG emissions (CO<sub>2</sub> and CH<sub>4</sub>) resulting from decomposition in landfills by redirecting this material to processes that use the solid waste material to produce vehicle fuels, heat, electricity, or compost.

### Water

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

### Other State Regulations and Goals

**Executive Order S-13-08.** EO Order S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 *California Climate Adaptation Strategy* report was issued in December 2009 (CNRA 2009), and an update, *Safeguarding California: Reducing Climate Risk*, followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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### 3.2.3 Local

#### City of San Marcos Climate Action Plan

The City adopted its Climate Action Plan (CAP) in September 2013. The CAP provides a GHG inventory for the community and municipal sectors establishing a baseline year of 2005 (City of San Marcos 2013b). The City's operational GHG emissions totaled 411,939 MT CO<sub>2</sub>e in 2005. The CAP establishes a target of 15% below 2005 levels in 2020, and 28% below 2005 levels in 2030. In order to attain these goals, the CAP contains recommended local GHG reduction measures. The majority of the actions described in the CAP are not project specific and include City-wide actions in which the City should implement by the target year. These forecast years for 2020 and 2030 reflect federal, state, and local regulations (i.e., AB 32 and EO S-3- 05) and coincide with the buildout of the General Plan Update. Some of the measures included in the CAP that will help the City reach its intended GHG reduction targets include:

- Facilitate sustainable development based on smart growth principles.
- Continue to expand and improve the City's bicycle and pedestrian network.
- Continue to expand and improve the transit network and its accessibility within San Marcos.
- Expand the availability and use of alternative fuel vehicles and fueling infrastructure.
- Require projects seeking discretionary approval from the City to implement all feasible measures for reducing GHG emissions associated with construction equipment.
- Promote xeriscaping to reduce yard trimmings and landscape maintenance.
- Increase recycling, composting, source reduction, and education efforts throughout San Marcos to reduce the amount of solid waste sent to landfills.

Applicable climate action measures include the following:

- **E-2 Energy Efficient New Construction** – The City shall increase the efficient use of energy and conservation of available resources in the design and construction of new buildings.
  - **E-2.1:** The City shall develop and/or promote incentives (e.g., expedited plan review, public recognition, existing state and utility financial incentives, etc.) for projects that voluntarily exceed Title 24 Energy Efficiency Building Standards.
  - **E-2.2:** The City shall provide green building resources and promote workshops offered by community organizations.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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- **E-2.3:** The City shall provide public recognition of Zero Net Energy projects built in advance of state requirements.
- **E-4 Smart Meters** – The City shall increase the community’s awareness understanding, and use of real-time energy consumption data and pricing available through SDG&E’s Smart Meter program.
  - **E-4.1:** The City shall assist SDG&E in its efforts to educate residents and business owners about Smart Meters, how to monitor electricity use, and the potential benefits associated with Smart Meters.
  - **E-4.2:** The City shall inform the community of smart metering options, such as online applications and in-home monitors.
  - **E-4.3:** The City shall connect residents and businesses with rebate and incentive programs that give priority to appliances with smart grid technology through the City’s website.
- **E-5 On-Site Small-Scale Solar Energy** – The City shall facilitate the installation and use of on-site small-scale energy systems, such as solar PV systems and other solar water heaters.
  - **E-5.1:** The City shall encourage local homebuilders to participate in the New Solar Homes Partnership to install solar PV systems on qualifying homes.
  - **E-5.2:** The City shall expand education on and promotion of existing incentive, rebate, and financial programs for solar PV systems and solar hot water heaters, such as those offered through the California Solar initiative, targeting specific groups or sectors within the community.
- **O-1 Construction Equipment Efficiency and Fuels** – Require projects seeking discretionary approval from the City to implement all feasible measures for reducing GHG emissions associated with construction equipment.
  - **O-1.1:** Through the construction permitting process, limit construction vehicle and equipment idling to 3 minutes and require the project applicant to post clear signs for workers at the entrances to the site.
  - **O-1.2:** Through the construction permitting process, require a percentage of construction vehicles and equipment to use equipment with new technologies (repowered engines, electric drive trains), use CARB-approved low carbon fuel, or be electrically-powered.
- **O-2 Lawn and Garden Equipment** – The City shall promote xeriscaping to reduce yard trimmings and landscape maintenance.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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- **O-2.1:** The City shall provide educational workshops and training to promote the installation of low-maintenance native landscaping in new and existing developed lots and remove turf to reduce lawn and garden equipment usage.
- **T-1 Smart Growth** – The City shall facilitate sustainable development based on smart growth principles.
  - **T-1.1:** The City shall provide and promote incentives for smart growth identified in the General Plan.
  - **T-1.2:** The City shall work with SANDAG in the updates to the Smart Growth Concept Map.
  - **T-1.3:** Through the development review process, the City shall evaluate development projects based on consistency with the City’s adopted General Plan 2030, updated zoning regulations, and applicable design guidelines, as well as SANDAG Smart Growth publications, including Designing for Smart Growth, Creating Great Places in the San Diego Region (2009) and Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region (2002).

The proposed project’s buildout year (2022) is beyond the adopted CAP’s certified horizon year 2020; however, consistency with the City’s CAP and the proposed project’s emissions are included in the analysis. The CAP is currently being updated and is anticipated to be adopted in early 2020.

### **City of San Marcos General Plan**

The City’s General Plan (City of San Marcos 2013a) includes various policies related to reducing GHG emissions. Applicable policies include the following:

#### ***Land Use and Community Design Element***

- Policy LU-2.1:** Promote compact development patterns that reduce air pollution and automobile dependence and facilitate walking, bicycling, and transit use.
- Policy LU-2.3:** Promote landscaping (e.g., native, drought tolerant plants) that minimizes demands on water supply.
- Policy LU-2.7:** Promote the instillation of trees to reduce the urban heat-island effect and green infrastructure to reduce storm water runoff.
- Policy LU-3.1:** Require that new development and redevelopment incorporate connections and reduce barriers between neighborhoods, transit corridors, and activity centers within the City.



# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## *Conservation and Open Space Element*

**Policy COS-4.5:** Encourage energy conservation and the use of alternative energy sources within the community.

**Policy COS-4.6:** Promote efficient use of energy and conservation of available resources in the design, construction, maintenance and operation of public and private facilities, infrastructure and equipment (City of San Marcos 2013a).

## **3.3 Significance Criteria and Methodology**

### **3.3.1 Thresholds of Significance**

The State of California has developed guidelines to address the significance of greenhouse gas emissions impacts that are contained in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). Appendix G provides that a project would have a significant environmental impact if it would:

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

Neither the State of California nor the SDAPCD has adopted emission-based thresholds of significance for GHG emissions under CEQA.

The CEQA Guidelines provide that in determining the significance of impacts from GHG emissions, an agency may consider the extent to which the project complies with a local plan for the reduction or mitigation of GHG emissions. (See CEQA Guidelines Sections 15064.4(b)(3), 15183.5.). As indicated above, the City has adopted such a plan. Accordingly, for purposes of GHG Threshold 1, the project's GHG emissions are assessed by evaluating the project's consistency with the CAP, which is discussed below in detail.

For purposes of GHG Threshold 2, the project is assessed based on its potential to conflict with the City's CAP, SANDAG's Regional Plan, and CARB's Scoping Plan. The Regional Plan and Scoping Plan goals and measures are analyzed against the project as part of the consistency analysis. The potential for the project to conflict with these plans is addressed in detail below.

# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **City of San Marcos Climate Action Plan Significance Criteria**

Consistent with the CEQA Guidelines and the CAP, each new project within the City subject to CEQA is evaluated relative to the following criteria:

1. All projects must demonstrate that project emissions have been accounted for in the CAP inventory. This is most commonly demonstrated through land use consistency with the General Plan land use designations. If a project is inconsistent with the land use and/or zoning regulations on which the CAP emissions modeling and thresholds are based, the applicant must establish that buildout of the project would emit fewer GHGs than buildout of the existing land use accounted for in the CAP.
2. Additionally, projects must demonstrate compliance with the CAP by completing the consistency worksheet. If not all mandatory actions outlined in the worksheet are feasible, the applicant may utilize substitute measures if equivalent reductions can be determined.

If a project is determined to be inconsistent with the CAP by failing to meet either step one or two, the project must demonstrate that the project would not substantially interfere with implementation of the CAP measures and actions. The project must demonstrate how the project will achieve its share of the established CAP targets by demonstrating that the project's amortized construction and operational emissions would not exceed the CAP's efficiency threshold.

## **City of San Marcos Efficiency Metric**

The Association of Environmental Professionals (AEP) Climate Change Committee recommends that CEQA GHG analyses evaluate project emissions in light of the trajectory of state climate change legislation and assess their “substantial progress” toward achieving long-term reduction targets identified in available plans, legislation, or EOs. Consistent with AEP Climate Change Committee recommendations, horizon year GHG impacts are analyzed in terms of whether the project would impede “substantial progress” toward meeting the reduction goal identified in SB 32 and EO S-55-18. As SB 32 is considered an interim target toward meeting the 2045 state goal, consistency with SB 32 would be considered contributing substantial progress toward meeting the state's long-term 2045 goals. Avoiding interference with, and making substantial progress toward, these long-term state targets is important as these targets have been set at levels that reduce California's fair share of emissions toward international targets that will stabilize global climate change effects and avoid the adverse environmental consequences described herein.

With that introduction, efficiency metrics are quantitative measurements of GHG efficiency for a given project and can be used to identify the emission level below which new development would not interfere with attainment of statewide GHG reduction targets. For purposes of this analysis, a locally-

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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appropriate 2030 project-specific threshold is derived from CARB's recommendations in the 2017 Scoping Plan.

More specifically, as used in this analysis, the efficiency metric was calculated by dividing statewide GHG emissions by the sum of statewide jobs and residents. To ensure the metric was tailored to local conditions, the City's jurisdictional area was evaluated to identify emissions sectors that are present and will be directly affected by potential land use changes proposed by the project. A description of major sources of emissions that are included in the 2017 Scoping Plan emissions sectors and representative sources in the City can be found in Table 9.

According to the City's CAP, the Agriculture Sector GHG emissions have been deemed to be de minimis, or insignificant, and removed from local GHG inventory accounting. Additionally, minimal Industrial Sector GHG emissions are present in the City's planning area, and the Industrial Sector GHG emissions are removed. Lastly, Cap and Trade GHG emission reductions occur independent of any local jurisdictional land use decisions and are also excluded from the locally-appropriate target calculation.

After removing Agricultural, Industrial, and Cap and Trade Sector GHG emissions, the remaining emission sectors with sources within the City's planning area are then summed to quantify a locally-appropriate emissions total for a residential project in the City. This locally-appropriate emissions total is divided by the statewide 2030 service person population to determine a locally-appropriate, project-level threshold of 3.2 MT of CO<sub>2</sub>e per service population that is consistent with SB 32 targets, as shown in Table 9. Therefore, for this analysis, the project would be compliant with the SB 32 target if project emissions are below the locally-appropriate 3.2 MT CO<sub>2</sub>e per service population efficiency metric, which is substantial progress toward climate stabilizing targets in 2045.

**Table 9**  
**CARB's California's 2017 Climate Change Scoping Plan Emissions Sector Targets<sup>1</sup>**

GHG Emissions Sector	2030 State Emissions Target (MMT CO <sub>2</sub> e)	Locally Appropriate <sup>2</sup>	Project Specific	Major Sources
Residential and Commercial	38	Yes	Yes	Natural gas end uses, including space and water heating of buildings
Electric Power	53	Yes	Yes	Electricity uses, including lighting, appliances, machinery and heating
High GWP	11	Yes	Yes	SF <sub>6</sub> from power stations, HFCs from refrigerants and air conditioning <sup>3</sup>
Recycling and Waste	8	Yes	Yes	Waste generated by residential, commercial, and other facilities
Transportation	103	Yes	Yes	Passenger, heavy duty, and other vehicle

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 9**  
**CARB's California's 2017 Climate Change Scoping Plan Emissions Sector Targets<sup>1</sup>**

GHG Emissions Sector	2030 State Emissions Target (MMT CO <sub>2</sub> e)	Locally Appropriate <sup>2</sup>	Project Specific	Major Sources
				emissions
Industrial	83	No	No	Oil, gas, and hydrogen production, refineries, general fuel use, mining operations <sup>4</sup> do not occur substantially within the City and are not a part of the project
Agriculture	24	No	No	Enteric fermentation, crop residue burning, manure management do not occur substantially within the City and are not included as part of the project <sup>5</sup>
Cap and Trade Reductions	-60	No	No	Reductions from facilities emitting more than 10,000 MT CO <sub>2</sub> e per year <sup>6</sup>
Scoping Plan Target (All Sectors)	260	No	No	All emission sectors
2030 Locally Applicable Emissions Sectors	213	Yes	Yes	Emissions applicable to the local planning area
Locally Appropriate Project-Specific Threshold Calculations				Metric
CARB's 2017 Climate Change Scoping Plan	California 2030 Population <sup>7</sup>			43,939,250
	California 2030 Employment Projection <sup>8</sup>			23,459,500
	2030 Service Population			67,398,750
Locally-Appropriate 2030 Project Threshold	2030 Locally-Appropriate Emissions Sectors (MT CO <sub>2</sub> e)			213,000,000
	2030 Service Population			67,398,750
	2030 Service Population Target (MT CO <sub>2</sub> e per Service Population) <sup>9</sup>			3.2

**Notes:** CARB = California Air Resources Board; GHG = greenhouse gas; GWP = global warming potential; SF<sub>6</sub> = sulfur hexafluoride; HFC = hydrofluorocarbon; MMT = million metric tons; MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalent; CAP = Climate Action Plan; City = City of San Marcos.

<sup>1</sup>All state targets in million metric tons of CO<sub>2</sub>e, see CARB's 2017 Climate Change Scoping Plan, Page 31 for sector details (CARB 2017).

<sup>2</sup>Locally appropriate is defined as having significant emissions in the Scoping Plan categories within the planning area.

<sup>3</sup>SF<sub>6</sub> is used primarily as an insulator in electrical substations while HFCs can be found in many residential and commercial refrigeration and air conditioning units. HFCs are in the process of being phased out through 2036 in most developed countries.

<sup>4</sup>The majority of this sector is not applicable to the local planning area and any potential applicable subsectors cannot be disaggregated due to the CARB accounting methods. Therefore, the entire sector has been removed to ensure a more conservative target.

<sup>5</sup>The 2013 City's CAP identified agricultural emissions as de minimis, or insignificant, and are excluded as an emissions sector. Therefore, this sector is considered not locally appropriate.

<sup>6</sup>Cap and Trade is excluded as reductions will occur independent of local project land use decisions and are therefore not locally appropriate.

<sup>7</sup>California Department of Finance State Population Projections, <http://www.dof.ca.gov/Forecasting/Demographics/projections/>

<sup>8</sup>Average employment range projections under implementation scenario, CARB's 2017 Climate Change Scoping Plan, Page 55 (CARB 2017).

<sup>9</sup>Total of 3.16 has been rounded up per Scoping Plan general methodology. Lead agencies may determine this threshold as they deem appropriate.

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## **3.3.2 Approach and Methodology**

### **3.3.2.1 Construction**

CalEEMod Version 2016.3.2 was used to estimate potential project-generated GHG emissions during construction. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, rock crushing generator, blasting, off-site improvements, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 2.4.2, Approach and Methodology (including Section 2.4.2.1, Construction), are also applicable for the estimation of construction-related GHG emissions. As such, see Section 2.4.2.1 for a discussion of construction emissions calculation methodology and assumptions.

### **3.3.2.2 Operation**

CalEEMod Version 2016.3.2 was used to estimate potential project-generated operational GHG emissions from vehicular sources, area sources (natural gas combustion and landscape maintenance), electrical generation (including electrical generation associated with water supply and wastewater treatment), and solid waste. Emissions from each category—area sources, energy sources, mobile sources, solid waste, and water supply and wastewater treatment—are discussed in the following text with respect to the project. For additional details, see Section 2.4.2.2, Operation, for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources. Operational Year 2022 was assumed to be consistent with the construction schedule.

#### **Area Sources**

CalEEMod was used to estimate GHG emissions from the project's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. See Section 2.4.2.2 for a discussion of landscaping equipment emissions calculations. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and little to no GHG emissions. No hearths or woodstoves would be included in the project design; therefore, they were not included in the CalEEMod analysis.

#### **Energy Sources**

The estimation of operational energy emissions was based on CalEEMod land use defaults and units or total area (i.e., square footage) of the project. Annual natural gas (non-hearth) and electricity emissions were estimated in CalEEMod using the emissions factors for San Diego Gas & Electric, which would be the energy source provider for the project. The project would

## **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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meet the 2016 California Building Energy Efficiency Standards (24 CCR, Part 6) at a minimum. Based on the project's timeline, compliance with the 2019 Title 24 standards would be more likely. Thus, the project operational energy emissions were adjusted to meet the 2019 Title 24 Standards.

The project would install smart meters and programmable thermostats, cool roof materials, and efficient lighting in all buildings and light control systems, where practical, which would reduce lighting energy by 20%. The project would also design roofing structure to accommodate the additional structural load of solar panels and pre-wire to allow for the flexibility for possible future installation. It was assumed that homes built under the 2019 Title 24 standards would use about 53% less energy than those under the 2016 Title 24 standards (CEC 2018).

### **Mobile Sources (Motor Vehicles)**

Mobile sources for the project would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. Based on the project-specific traffic report prepared for the project by Linscott, Law & Greenspan, Engineers, the proposed residential development is anticipated to generate eight trips per dwelling unit (LLG 2019), which was assumed for the weekday trip rate. A 5% reduction for proximity to high quality, multi-modal Nordahl Station and the Class I Inland Rail Trail bikeway was applied. Accordingly, the 192 dwelling units would generate approximately 1,536 trips per day during the week. Because the default CalEEMod weekday trip rates for multifamily homes differed from the assumed project trip rate, the project weekend trip rates were adjusted. Furthermore, SANDAG's average trip length of 7.9 miles for residential was used for the analysis (SANDAG 2002). CalEEMod default data, including trip characteristics, variable start information, and emissions factors were conservatively used for the model inputs to estimate daily emissions from proposed vehicular sources. Project-related traffic was assumed to include a mixture of vehicles in accordance with the model outputs for traffic. CalEEMod default emissions factors and vehicle fleet mix were conservatively used for the model inputs to estimate daily emissions from proposed vehicular sources.<sup>7</sup> Emission factors representing the vehicle mix and emissions for 2022 were used to estimate emissions associated with full buildout of the project.

Each residential garage would be pre-wired for a 220-volt electric vehicle charging.

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<sup>7</sup> Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The default vehicle mix (vehicle class distribution including automobiles, trucks, buses, motorcycles) provided in CalEEMod 2016.3.2, which is based on CARB's Mobile Source Emissions Inventory model, EMFAC Version 2014, was applied.

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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## Solid Waste

The project would generate solid waste and therefore would result in CO<sub>2</sub>e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste. Project compliance with the 75% diversion rate by 2020, consistent with AB 341 (25% increase from the solid waste diversion requirements of AB 939, Integrated Waste Management Act), has been included in the GHG assessment.

The project would include interior and exterior storage areas for recyclables, food waste, and green waste at all buildings.

## Water and Wastewater

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

For indoor water use, the project would install low-flow bathroom and kitchen faucets, low-flow toilets, and low-flow showers. For outdoor water, the project would install water-efficient devices and landscaping in accordance with applicable ordinances, including use of drought-tolerant species appropriate to the climate and region, which would reduce water use associated with landscaping. It was assumed that the project would apply a water conservation strategy resulting in a 20% reduction in indoor water use per CALGreen and a minimum 20% reduction in outdoor water use.

### **3.3.2.3 City of San Marcos' General Plan Land Use Designation**

The City's GHG inventory, on which the City's CAP reduction targets were based, is based on the land use as designed in the City's General Plan. A GPA is required to re-designate the southern parcel of the project site (APN 228-312-10) from SR-1 (as currently designated by the County of San Diego) and LI (as designated by the City, as the parcel is within its Sphere of Influence) to SPA. Additionally, a GPA is required to re-designate the northern parcel of the project site (APN 228-312-09) from LDR to SPA. Based on the County of San Diego's General Plan, the maximum floor area ratio is 0.6 for the LI land use (County of San Diego 2011); thus, the 10.8-acre lot (APN 228-312-10) allows for a maximum of 6.48 acres, or 282,269 square feet, of industrial space. at a minimum. Based on the project's timeline, compliance with the 2019 Title 24 standards would be more likely. The City's General Plan allows for a maximum of 8

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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dwelling units per acre for Mobile Home Park (R-MHP) land use; therefore, the 3.6-acre lot (APN 228-312-09) allows for a maximum of 29 dwelling units (City of San Marcos 2013a). Buildout of the City's General Plan and County of San Diego's General Plan land use designations were modeled as 29 single-family homes and light industrial. CalEEMod default values were used to estimate GHG emissions from area, energy, mobile, waste, and water. Similar to the project, an operational year of 2022 was modeled.

### 3.4 Impact Analysis

This section evaluates the GHG emissions impacts associated with the project. The significance criteria described in Section 3.3.1, Thresholds of Significance, were used to evaluate impacts associated with the construction and operation of the project.

***Threshold 1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

***Threshold 2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

#### City of San Marcos' Climate Action Plan Consistency

As discussed in Section 3.2, Regulatory Setting, the City has adopted a CAP, which was developed to help reduce the City's GHG emissions. The CAP is the implementation framework that contains the details of recommended GHG reduction measures which the City should implement in order to meet the GHG reduction targets of 15% by 2020 and 28% by 2030 (City of San Marcos 2013b). The first step in determining conformance with the CAP is demonstrating that emissions from the project were accounted for in the CAP.

The City's CAP reduction targets were based on the land use as designed in the City's General Plan, which was the land use modeled in the CAP's GHG inventory. Thus, Projects that are not consistent with the land use designation at the time the CAP was developed must demonstrate that buildout of the proposed land use will result in fewer emissions than buildout of the existing land use designated in the General Plan to be consistent with the CAP. To evaluate the potential emissions from buildout of the existing land uses in the General Plan, the industrial and residential land uses were modeled using CalEEMod Version 2016.3.2. As detailed in Section 3.3.2.4, City of San Marcos' General Plan, the City's General Plan was analyzed as buildout of 29 single-family homes and light industrial. Where applicable, compliance with regulations assumed in the modeling of the project, such as reducing the utility electricity intensity factors as per the RPS and buildout year of 2022.



# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

## *Construction Emissions*

Construction of the project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, blasting, off-site improvements, and worker vehicles. GHG emissions associated with temporary construction activity were quantified using CalEEMod. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.4.2.1, Construction, of this report.

Table 10 shows the estimated annual GHG construction emissions associated with the project, as well as the annualized construction emissions over a 30-year period (SCAQMD 2008).

**Table 10**  
**Estimated Annual Construction Greenhouse Gas Emissions**

Year	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	<i>metric tons</i>			
2020 (Construction)	564.41	0.13	0.00	567.70
2020 (Sewer Option #2)	12.20	<0.01	0.00	12.21
2021	971.18	0.19	0.00	976.05
<b>Total</b>	<b>1,531.89</b>	<b>0.33</b>	<b>0.00</b>	<b>1,540.06</b>
<b>30-Year Amortized Construction Emissions</b>				<b>51.34</b>

**Notes:** CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent.

See Appendix A for complete results. The total emissions per year are an aggregate of the CalEEMod runs in Appendix A.

Blasting and rock crushing was assumed to occur in the grading phase, including utility undergrounding (2020). Sewer Option #2 off-site improvements was assumed to occur in the grading phase (2020). Sewer Option #2 construction emissions include blasting, rock crushing, generator, and haul truck trip emissions.

Estimated 30-year amortized project-generated construction emissions would be approximately 51 MT CO<sub>2</sub>e per year. However, as there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis below.

## *Operational Emissions*

Operation of the project would generate GHG emissions through motor vehicle trips to and from the project site; landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the project); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. CalEEMod was used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.3.2.2. The project assumed compliance with the 2019 Title 24 standards; thus, reductions from project's compliance with 2019 Title 24 standards at the time of project buildout were included.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

The estimated operational (Year 2022) project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, and water usage and wastewater generation are shown in Table 11.

**Table 11**  
**Estimated Annual Project Operational Greenhouse Gas Emissions**

Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	<i>metric tons per year</i>			
Area	2.33	0.00	0.00	2.39
Energy	325.74	0.01	0.00	327.08
Mobile	1,380.66	0.07	0.00	1,382.50
Solid waste	4.83	0.29	0.00	11.96
Water supply and wastewater	52.02	0.35	0.01	63.44
<b>Total</b>	<b>1,765.58</b>	<b>0.73</b>	<b>0.01</b>	<b>1,787.37</b>

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent.  
See Appendix A for detailed results.

As shown in Table 11, annual emissions of the project would be approximately 1,787 MT CO<sub>2</sub>e per year.

The project's proposed change in land use was not accounted for in the development of the CAP. Therefore, the emissions from the project must be compared to those emissions that would occur if the land use assumed in the development of the CAP were built out. Table 12 presents the annual GHG emissions from the buildout of the General Plan land use if it was to have the same initial operational year as the project.

**Table 12**  
**Estimated Annual General Plan Buildout Operational Greenhouse Gas Emissions**

Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	<i>metric tons per year</i>			
Area	42.88	0.03	0.00	44.28
Energy	806.27	0.03	0.01	809.50
Mobile	2,611.03	0.13	0.00	2,614.30
Solid waste	77.96	4.61	0.00	193.13
Water supply and wastewater	226.34	2.20	0.05	297.13
<b>Total</b>	<b>3,764.47</b>	<b>6.99</b>	<b>0.06</b>	<b>3,958.34</b>

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent.  
See Appendix A for detailed results.

As shown in Table 12, annual emissions of buildout of the General Plan land use designations would be approximately 3,958 MT CO<sub>2</sub>e per year.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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Table 13 presents the annual GHG emissions from the buildout of the project and existing General Plan land use designations buildout.

**Table 13**  
**Estimated Annual Project and General Plan Buildout**  
**Operational Greenhouse Gas Emissions**

Emission Source	CO <sub>2</sub> e (metric tons per year)
Project operation emissions	1,787.37
Amortized construction emissions	51.34
<i>Operation + amortized construction total</i>	<i>1,838.71</i>
<i>General Plan buildout</i>	<i>3,958.34</i>
<i>Exceeds General Plan buildout?</i>	<i>No</i>

Notes: CO<sub>2</sub>e = carbon dioxide equivalent.  
See Appendix A for detailed results.

As shown in Table 13, estimated GHG emissions generated by the project (operation plus amortized construction) would be approximately 1,839 MT CO<sub>2</sub>e per year. Buildout of the existing General Plan land use designations would result in 3,958 MT CO<sub>2</sub>e in annual emissions. The project would be less GHG intensive than the General Plan-compliant development. Furthermore, the project would be consistent with the actions in the CAP Consistency Worksheet (Appendix C).

The City's CAP Consistency Worksheet also has been completed for the project (City of San Marcos 2013c). The CAP Worksheet includes specific mandatory and voluntary actions, generally outlined in the General Plan or Municipal Code. The project would be consistent with all applicable mandatory project design feature in the completed CAP Consistency Worksheet. The project also would support Measure T-1 Smart Growth because the project would be located approximately 0.6 miles from transit (specifically Sprinter/Breeze transit services), which is less than the City's objective of locating 25% of new development within 2 miles of shopping/transit/job centers. NCTD provides public transportation within the City and the County of San Diego for Coaster rail service, Sprinter light rail service, and Breeze bus service. Sprinter service operates between Escondido and Oceanside with connections to Interstate 5 and the Coaster rail service operating out of the City of Oceanside. The Sprinter rail service and bus transit service are located approximately 0.6 miles from the project site on East Mission Road. Also, the project is an infill site surrounded by existing development located within a transit priority area according to Section 21099 of the California Public Resources Code.

*Consistency with Statewide Greenhouse Gas Reduction Strategies*

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

## Efficiency Metric Target

As shown in Table 3.7-2, a locally-appropriate 2030 project threshold consistent with the SB 32 target is calculated to be 3.2 MT CO<sub>2</sub>e per service population. For this analysis, the project would be compliant with the SB 32 target if project emissions are below the locally-appropriate 3.2 MT CO<sub>2</sub>e per service population efficiency metric, which is substantial progress toward climate stabilizing targets in 2045.

The project was estimated to have a service population of 603<sup>8</sup>; therefore, the project would result in an efficiency metric of 3.1 MT CO<sub>2</sub>e per service population per year (1,839 MT CO<sub>2</sub>e/year / 603 service population). This would be less than the City's efficiency metric of 3.2 MT CO<sub>2</sub>e per service population per year.

## Consistency with Statewide Greenhouse Gas Reduction Strategies

The project's consistency with statewide GHG reduction strategies is summarized in detail in Table 14 through consideration of the project's various construction and operational components and their relationship to specified laws and regulations designed to reduce GHG emissions from such components.

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
<i>Building Components/Facility Operations</i>		
Roofs/Ceilings/Insulation	CALGreen Code (Title 24, Part 11) California Energy Code (Title 24, Part 6)	The project must comply with efficiency standards regarding roofing, ceilings, and insulation. For example: <u>Roofs/Ceilings</u> : New construction must reduce roof heat island effects per CALGreen Code Section 106.11.2, which requires use of roofing materials having a minimum aged solar reflectance, thermal emittance complying with Section A5.106.11.2.2 and A5.106.11.2.3 or a minimum aged Solar Reflectance Index as specified in Tables A5.106.11.2.2, or A5.106.11.2.3. Roofing materials must also meet solar reflectance and thermal emittance standards contained in Title 20 Standards. <u>Roof/Ceiling Insulation</u> : There are also requirements for the installation of roofing and ceiling insulation. (See Title 24, Part 6 Compliance Manual at Section 3.2.2.)
Flooring	CALGreen Code	The project must comply with efficiency standards regarding flooring

<sup>8</sup> The project would develop approximately 192 multi-family residential dwelling units, resulting in a gross density of approximately 13.3 dwelling units per acre. Based on the population rate coefficient of 3.14 persons per dwelling unit, as established by the California Department of Finance, the proposed project would potentially add an estimated 603 people to the area (DOF 2018).

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
		materials. For example, for 80% of floor area receiving “resilient flooring,” the flooring must meet applicable installation and material requirements contained in CALGreen Code Section 5.504.4.6.
Window and Doors (Fenestration)	California Energy Code	The project must comply with fenestration efficiency requirements. For example, the choice of windows, glazed doors, and any skylights for the project must conform to energy consumption requirements affecting size, orientation, and types of fenestration products used. (See Title 24, Part 6 Compliance Manual, Section 3.3.)
Building Walls/Insulation	CALGreen Code California Energy Code	<p>The project must comply with efficiency requirements for building walls and insulation.</p> <p><u>Exterior Walls:</u> Must meet requirements in current edition of California Energy Code, and comply with Sections A5.106.7.1 or A5.106.7.2 of CALGreen Code for wall surfaces, as well as Section 5.407.1, which required weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2. Construction must also meet requirements contained in Title 24, Part 6, which vary by material of the exterior walls. (See Title 24, Part 6 Compliance Manual, Part 3.2.3.)</p> <p><u>Demising (Interior) Walls:</u> Mandatory insulation requirements for demising walls (which separate conditioned from non-conditions space) differ by the type of wall material used. (<i>Id.</i> at 3.2.4.)</p> <p><u>Door Insulation:</u> There are mandatory requirements for air infiltration rates to improve insulation efficiency; they differ according to the type of door. (<i>Id.</i> at 3.2.5.)</p> <p><u>Flooring Insulation:</u> There are mandatory requirements for insulation that depend on the material and location of the flooring. (<i>Id.</i> at 3.2.6.)</p>
Finish Materials	CALGreen Code	The project must comply with pollutant control requirements for finish materials. For example, materials including adhesives, sealants, caulks, paints and coatings, carpet systems, and composite wood products must meet requirements in CALGreen Code to ensure pollutant control. (CALGreen Code Section 5.504.4.)
Wet Appliances (Toilets/Faucets/Urinals, Dishwasher/Clothes Washer, Spa and Pool/Water Heater)	CALGreen Code California Energy Code Appliance Efficiency Regulations (Title 20 Standards)	<p>Wet appliances associated with the project must meet various efficiency requirements. For example:</p> <p><u>Spa and Pool:</u> Use associated with the project is subject to appliance efficiency requirements for service water heating systems and equipment, spa and pool heating systems and equipment. (Title 24, Part 6, Sections 110.3, 110.4, 110.5; Title 20 Standards, Sections 1605.1(g), 1605.3(g); see also California Energy Code.)</p> <p><u>Toilets/Faucets/Urinals:</u> Use associated with the project is subject to new maximum rates for toilets, urinals, and faucets effective January 1, 2016:</p> <ul style="list-style-type: none"> <li>• Showerheads maximum flow rate 2.5 gpm at 80 psi</li> <li>• Wash fountains 2.2 x (rim space in inches/20) gpm at 60 psi</li> <li>• Metering faucets 0.25 gallons/cycle</li> <li>• Lavatory faucets and aerators 1.2 gpm at 60 psi</li> <li>• Kitchen faucets and aerators 1.8 gpm with optional temporary flow</li> </ul>

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
		<p>of 2.2 gpm at 60 psi</p> <ul style="list-style-type: none"> <li>Public lavatory faucets 0.5 gpm at 60 psi</li> <li>Trough-type urinals 16 inches length</li> <li>Wall mounted urinals 0.125 gallons per flush</li> <li>Other urinals 0.5 gallons per flush</li> </ul> <p>(Title 20 Standards, Sections 1605.1(h),(i) 1065.3(h),(i).)</p> <p><u>Water Heaters</u>: Use associated with the project is subject to appliance efficiency requirements for water heaters. (Title 20 Standards, Sections 1605.1(f), 1605.3(f).)</p> <p><u>Dishwasher/Clothes Washer</u>: Use associated with the project is subject to appliance efficiency requirements for dishwashers and clothes washers. (Title 20 Standards, Sections 1605.1(o),(p),(q), 1605.3(o),(p),(q).)</p>
Dry Appliances (Refrigerator/Freezer, Heater/Air Conditioner, Clothes Dryer)	Title 20 Standards CALGreen Code	<p>Dry appliances associated with the project must meet various efficiency requirements. For example:</p> <p><u>Refrigerator/Freezer</u>: Use associated with the project is subject to appliance efficiency requirements for refrigerators and freezers. (Title 20 Standards, Sections 1605.1(a), 1605.3(a).)</p> <p><u>Heater/Air Conditioner</u>: Use associated with the project is subject to appliance efficiency requirements for heaters and air conditioners. (Title 20 Standards, Sections 1605.1(b),(c),(d),(e), 1605.3(b),(c),(d),(e) as applicable.)</p> <p><u>Clothes Dryer</u>: Use associated with the project is subject to appliance efficiency requirements for clothes dryers. (Title 20 Standards, Section 1605.1(q).)</p>
	CALGreen Code	Installations of HVAC, refrigeration and fire suppression equipment must comply with CALGreen Code Sections 5.508.1.1 and 508.1.2, which prohibits CFCs, halons, and certain HCFCs and HFCs.
Lighting	Title 20 Standards	<p>Lighting associated with the project will be subject to energy efficiency requirements contained in Title 20 Standards.</p> <p><u>General Lighting</u>: Indoor and outdoor lighting associated with the project must comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(j),(k),(n), 1605.3(j),(k),(n).)</p> <p><u>Emergency lighting and self-contained lighting</u>: the project must also comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(l), 1605.3(l).)</p> <p><u>Traffic Signal Lighting</u>: For any necessary project improvements involving traffic lighting, traffic signal modules and traffic signal lamps will need to comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(m), 1605.3(m).)</p>
	California Energy Code	<p>Lighting associated with the project will also be subject to energy efficiency requirements contained in Title 24, Part 6, which contains energy standards for non-residential indoor lighting and outdoor lighting. (See Title 24 Part 6 Compliance Manual, at Sections 5, 6.)</p> <p>Mandatory lighting controls for indoor lighting include, for example, regulations for automatic shut-off, automatic daytime controls,</p>

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
		demand responsive controls, and certificates of installation. (Id. at Section 5.) Regulations for outdoor lighting include, for example, creation of lighting zones, lighting power requirements, a hardscape lighting power allowance, requirements for outdoor incandescent and luminaire lighting, and lighting control functionality. (Id. at Section 6.)
	AB 1109	Lighting associated with the project will be subject to energy efficiency requirements adopted pursuant to AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.
Bicycle and Vehicle Parking	CALGreen Code	The project will be required to provide compliant bicycle parking, fuel-efficient vehicle parking, and electric vehicle charging spaces (CALGreen Code Sections 5.106.4, 5.106.5.1, 5.106.5.3)
	California Energy Code	The project is also subject to parking requirements contained in Title 24, Part 6. For example, parking capacity is to meet but not exceed minimum local zoning requirements, and the project should employ approved strategies to reduce parking capacity (Title 24, Part 6, section 106.6)
Landscaping	CALGreen Code	The CALGreen Code requires and has further voluntary provisions for: - A water budget for landscape irrigation use; - For new water service, separate meters or submeters must be installed for indoor and outdoor potable water use for landscaped areas of 1,000-5,000 square feet; - Provide water-efficient landscape design that reduces use of potable water beyond initial requirements for plant installation and establishment
	Model Water Efficient Landscaping Ordinance	The model ordinance promotes efficient landscaping in new developments and establishes an outdoor water budget for new and renovated landscaped areas that are 500 square feet or larger. (CCR, Title 23, Division 2, Chapter 2.7.)
	Cap-and-Trade Program	Transportation fuels used in landscape maintenance equipment (e.g., gasoline) would be subject to the Cap-and-Trade Program. (See "Energy Use," below.)
Refrigerants	CARB Management of High GWP Refrigerants for Stationary Sources	Any refrigerants associated with the project will be subject to CARB standards. CARB's Regulation for the Management of High GWP Refrigerants for Stationary Sources 1) reduces emissions of high-GWP refrigerants from leaky stationary, non-residential refrigeration equipment; 2) reduces emissions resulting from the installation and servicing of stationary refrigeration and air conditioning appliances using high-GWP refrigerants; and 3) requires verification GHG emission reductions. (CCR, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 5.1, Section 95380 et seq.)
Consumer Products	CARB High GWP	All consumer products associated with the project will be subject to

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
	GHGs in Consumer Products	CARB standards. CARB's consumer products regulations set VOC limits for numerous categories of consumer products, and limits the reactivity of the ingredients used in numerous categories of aerosol coating products (CCR, Title 17, Division 3, Chapter 1, Subchapter 8.5.)
<i>Construction</i>		
Use of Off-Road Diesel Engines, Vehicles, and Equipment	CARB In-Use Off-Road Diesel Vehicle Regulation	Any relevant vehicle or machine use associated with the project will be subject to CARB standards. The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation: 1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; 2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; 3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and 4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation.
	Cap-and-Trade Program	Transportation fuels (e.g., gasoline) used in equipment operation would be subject to the Cap-and-Trade Program. (See "Energy Use," below.)
Greening New Construction	CALGreen Code	All new construction, including the project, must comply with CALGreen Code, as discussed in more detail throughout this table. Adoption of the mandatory CALGreen Code standards for construction has been essential for improving the overall environmental performance of new buildings; it also sets voluntary targets for builders to exceed the mandatory requirements.
Construction Waste	CALGreen Code	The project will be subject to CALGreen Code requirements for construction waste reduction, disposal, and recycling, such as a requirement to recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction waste in accordance with Section 5.408.1.1, 5.408.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.
<i>Solid Waste</i>		
Solid Waste Management	Landfill Methane Control Measure	Waste associated with the project will be disposed per state requirements for landfills, material recovery facilities, and transfer stations. Per the statewide GHG emissions inventory, the largest emissions from waste management sectors come from landfills, and are in the form of CH <sub>4</sub> . In 2010, CARB adopted a regulation that reduces emissions from methane in landfills, primarily by requiring owners and operators of certain uncontrolled municipal solid waste landfills to install gas collection and control systems, and requires existing and newly



# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		installed gas and control systems to operate in an optimal manner. The regulation allows local air districts to voluntarily enter into a memorandum of understanding with CARB to implement and enforce the regulation and to assess fees to cover costs of implementation.
	Mandatory Commercial Recycling (AB 341)	AB 341 will require the project, if it generates four cubic yards or more of commercial solid waste per week, to arrange for recycling services, using one of the following: self-haul; subscribe to a hauler(s); arranging for pickup of recyclable materials; subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation. The project will also be subject to local commercial solid waste recycling program required to be implemented by each jurisdiction under AB 341.
	CALGreen Code	The project will be subject to CALGreen Code requirement to provide areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling (CALGreen Code Section 5.410.1)
<i>Energy Use</i>		
Electricity/Natural Gas Generation	Cap-and-Trade Program	Electricity and natural gas usage associated with the project will be subject to the Cap-and-Trade Program. The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase. Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, reformulated gasoline blendstock for oxygenate blending (RBOB), distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 metric tons or more of CO <sub>2</sub> e annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California.
Renewable Energy	California RPS (SB X1-2, SB 350, and SB 100)	Energy providers associated with the project will be required to comply with RPS set by SB X1 2, SB 350, and SB 100. SB X1 2 requires investor-owned utilities, publicly-owned utilities, and electric service providers to increase purchases of renewable energy such that at least 33% of retail sales are procured from renewable energy resources by December 31, 2020. In the interim, each entity was required to procure an average of 20% of renewable energy for the period of January 1, 2011 through December 31, 2013; and will be required to procure an average of 25% by December 31, 2016, and 33% by 2020. SB 350 requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030. SB 100 increased the standards set forth in SB 350 establishing that 44%

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
		of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California by 2045.
	Million Solar Roofs Program (SB 1)	The project will participate in California's energy market by pre-wiring roofs for future installation of solar, which is affected by implementation of the Million Solar Roofs Program. As part of Governor Schwarzenegger's Million Solar Roofs Program, California has set a goal to install 3,000 megawatts of new, solar capacity through 2016. The Million Solar Roofs Program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving down costs over time.
	California Solar Initiative- Thermal Program	The project will participate in California's energy market, which is affected by implementation of the California Solar Initiative -Thermal Program. The program offers cash rebates of up to \$4,366 on solar water heating systems for single-family residential customers. Multifamily and Commercial properties qualify for rebates of up to \$800,000 on solar water heating systems and eligible solar pool heating systems qualify for rebates of up to \$500,000. Funding for the California Solar Initiative-Thermal program comes from ratepayers of Pacific Gas & Electric, SCE, Southern California Gas Company, and San Diego Gas & Electric. The rebate program is overseen by the CPUC as part of the California Solar Initiative.
	Waste Heat and Carbon Emissions Reduction Act (AB 1613, AB 2791)	The project will participate in California's energy market, which is affected by implementation of the Waste Heat and Carbon Emissions Reduction Act. Originally enacted in 2007 and amended in 2008, this act directed the CEC, CPUC, and CARB to implement a program that would encourage the development of new combined heat and power systems in California with a generating capacity of not more than 20 megawatts, to increase combined heat and power use by 30,000 gigawatt-hour. The CPUC publicly owned electric utilities, and CEC duly established policies and procedures for the purchase of electricity from eligible combined heat and power systems. CEC guidelines require combined heat and power systems to be designed to reduce waste energy; have a minimum efficiency of 60%; have NO <sub>x</sub> emissions of no more than 0.07 pounds per megawatt-hour; be sized to meet eligible customer generation thermal load; operate continuously in a manner that meets expected thermal load and optimizes efficient use of waste heat; and be cost effective, technologically feasible, and environmentally beneficial.
<i>Vehicular/Mobile Sources</i>		
General	SB 375 and SANDAG	The project complies with, and is subject to, the SANDAG adopted RTP/SCS, which CARB approved as meeting its regional GHG

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
	RTP/SCS	targets in 2016.
Fuel	Low Carbon Fuel Standard (LCFS)/ EO S-01-07	Auto trips associated with the project will be subject to LCFS (EO S-01-07), which requires a 20% or greater reduction in the average fuel carbon intensity by 2030 with a 2010 baseline for transportation fuels in California regulated by CARB. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve statewide GHG reduction goals.
	Cap-and-Trade Program	Use of gasoline associated with the project will be subject to the Cap-and-Trade Program. The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase. Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, RBOB, distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT or more of CO <sub>2</sub> e annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California.
Light-Duty Vehicles	AB 1493 (or the Pavley Standard)	Cars that drive to and from the project will be subject to AB 1493, which directed CARB to adopt a regulation requiring the maximum feasible and cost effective reduction of GHG emissions from new passenger vehicles. Pursuant to AB 1493, CARB adopted regulations that establish a declining fleet average standard for CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, and HFCs (air conditioner refrigerants) in new passenger vehicles and light-duty trucks beginning with the 2009 model year and phased-in through the 2016 model year. These standards are divided into those applicable to lighter and those applicable to heavier portions of the passenger vehicle fleet. The regulations will reduce “upstream” smog-forming emissions from refining, marketing, and distribution of fuel.
	Advanced Clean Car and ZEV Programs	Cars that drive to and from the project will be subject to the Advanced Clean Car and ZEV Programs. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. By 2025, new automobiles will emit 34% fewer global warming gases and 75% fewer smog-forming emissions. The ZEV program will act as the focused technology of the Advanced

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/ Regulations	GHG Reduction Measures Required for Project
		Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018-2025 model years.
	Tire Inflation Regulation	Cars that drive to and from the project will be subject to the CARB Tire Inflation Regulation, which took effect on September 1, 2010, and applies to vehicles with a gross vehicle weight rating of 10,000 pounds or less.  Under this regulation, automotive service providers must, inter alia, check and inflate each vehicle's tires to the recommended tire pressure rating, with air or nitrogen, as appropriate, at the time of performing any automotive maintenance or repair service, and to keep a copy of the service invoice for a minimum of three years, and make the vehicle service invoice available to the CARB, or its authorized representative upon request.
	EPA and NHTSA GHG and CAFE standards.	Mobile sources that travel to and from the project would be subject to EPA and NHTSA GHG and CAFE standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. (75 FR 25324–25728 and 77 FR 62624–63200.)
<i>Water Use</i>		
Water Use Efficiency	Emergency State Water Board Regulations	Water use associated with the project will be subject to emergency regulations.  On May 18, 2016, partially in response to EO B-27-16, the State Water Board adopted emergency water use regulations (CCR, title 23, Section 864.5 and amended and re-adopted Sections 863, 864, 865, and 866). The regulation directs the State Water Board, Department of Water Resources, and CPUC to implement rates and pricing structures to incentivize water conservation, and calls upon water suppliers, homeowners' associations, California businesses, landlords and tenants, and wholesale water agencies to take stronger conservation measures.
	EO B-37-16	Water use associated with the project will be subject to Emergency EO B-37-16, issued May 9, 2016, which directs the State Water Resources Control Board to adjust emergency water conservation regulations through the end of January, 2017 to reflect differing water supply conditions across the state.  The Water Board must also develop a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The Water Board and Department of Water Resources will develop new, permanent water use targets to which the project will be subject.  The Water Board will permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.

# Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

**Table 14**  
**Relevant Greenhouse Gas-Related Laws and Regulations**

Project Component	Applicable Laws/Regulations	GHG Reduction Measures Required for Project
	EO B-40-17	EO B-40-17 lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. It also rescinds EO B-29-15, but expressly states that EO B-37-16 remains in effect and directs the State Water Resources Control Board to continue development of permanent prohibitions on wasteful water use to which the project will be subject.
	SB X7-7	Water provided to the project will be affected by SB X7-7's requirements for water suppliers. SB X7-7, or the Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency. It also requires, among other things, that the Department of Water Resources, in consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies.
	CALGreen Code	The project is subject to CALGreen Code's water efficiency standards, including a required 20% mandatory reduction in indoor water use. (CALGreen Code, Division 4.3.)
	California Water Code, Division 6, Part 2.10, Sections 10910–10915.	Development and approval of the project requires the development of a project-specific Water Supply Assessment.
	Cap-and-Trade Program	Electricity usage associated with water and wastewater supply, treatment and distribution would be subject to the Cap-and-Trade Program.
	California RPS (SB X1-2, SB 350, SB 100)	Electricity usage associated with water and wastewater supply, treatment and distribution associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100.

**Notes:** AB = Assembly Bill; CARB = California Air Resources Board; CEC = California Energy Commission; CFC = chlorofluorocarbon; CH<sub>4</sub> = methane; CO<sub>2</sub> = carbon dioxide; CO<sub>2e</sub> = carbon dioxide equivalent; CPUC = California Public Utilities Commission; EO = Executive Order; EPA = Environmental Protection Agency; GHG = greenhouse gas; GWP = global warming potential; HCFC = hydrochlorofluorocarbon; HFC = hydrofluorocarbon; gpm = gallons per minute; MT = metric tons; N<sub>2</sub>O = nitrous oxide; NHTSA = National Highway Traffic Safety Administration; PM = particulate matter; RPS = Renewable Portfolio Standard; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SANDAG = San Diego Association of Governments; VOC = volatile organic compound; ZEV = zero emission vehicle

As shown, the project would be consistent with and would not conflict with the applicable GHG-reducing strategies of the state that implicate the project's construction and operational components.

In addition, CARB notes in the First Update that "California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). The project would help support achievement of the near-term 2020 goal (as codified in AB 32), the interim 2030 goal (as codified in SB 32) and the long-term, carbon neutrality 2045 goal (as set forth in EO B-55-18) by being infill development with access to multi-

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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modal transportation options and incorporating design features such as installation of smart meters, installation of programmable thermostats, implementation of a parking management plan, walkability and bicycle access throughout the project site, walking access to nearby sprinter station, and drought-tolerant landscaping.<sup>9</sup>

### Consistency with SANDAG's RTP/SCS

At the regional level, SANDAG's RTP/SCS has been adopted for the purpose of reducing GHG emissions attributable to passenger vehicles in the San Diego region. In October 2015, SANDAG adopted its Regional Plan, which meets CARB's 2020 and 2035 reduction targets for the region. The RTP/SCS does not regulate land use or supersede the exercise of land use authority by SANDAG's member jurisdictions, but it is a relevant regional reference document for purposes of evaluating the intersection of land use and transportation patterns and the corresponding GHG emissions. CARB has recognized that the approved RTP/SCS is consistent with SB 375 (CARB 2015b).

For purposes of the RTP/SCS consistency evaluation, the proposed project is infill within a transit priority area (per Public Resources Code Section 21099) and as a result, residents would have a lower per capita vehicle miles traveled and associated GHG impacts than similarly sized growth outside of the City center. The project also would increase access to transit, as it is located approximately 0.6 miles from the Sprinter station and bus station.<sup>10</sup> The project would provide connectivity by extending the sidewalk to neighboring communities and the Sprinter station. The project's proximity to State Route 78 and Interstate 15 further allow for easy regional connectivity to employment centers, shopping areas, and recreation opportunities. The project's internal road circulation and access plan creates a safe and free flow of vehicular, pedestrian, and bicycle traffic by incorporating traffic calming measures to promote safe driveways shared by all. The project also encompasses the intent of SANDAG's Transit Oriented Development (TOD) Strategy. The project's density, product type, and most importantly the project's location, are consistent with several strategies outlined in SANDAG's Regional TOD Strategy such as Strategy #2; which facilitates access to employment centers through transit

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<sup>9</sup> GHG emission reductions from the listed design features were not quantified.

<sup>10</sup> The City utilizes the NCTD for Coaster rail service, Sprinter light rail service, and Breeze bus service for connections throughout the County of San Diego. Sprinter service operates between Escondido and Oceanside with connections to Interstate 5 and the Coaster rail service operating out of the City of Oceanside. The NCTD operates the Nordahl Road Sprinter and Breeze transit station within a short walk from the project area. Connections to Orange County can be made via the Metrolink in the City of Oceanside. Similarly, connections to Riverside Transit Authority buses can be made via the transit station in Oceanside and Escondido. Both the Metrolink connection in Oceanside and the Riverside Transit Authority Bus connection in Oceanside and Escondido are accessible through Sprinter light rail service. These public transit options will offer residents of the project area quick access to a variety of alternative modes of transportation.

## Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan

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stations, Strategy #3; which promotes walking and biking to transit stations, connecting people to jobs in transit oriented districts, and Strategy #9; under which the project would pay into community facilities and infrastructure programs. The features mentioned above help facilitate alternative transit usage and reduce the overall vehicle trips, thereby reducing the project's regional GHG emissions.

As presented in above, the project would result in less-than-significant GHG emissions based on numerous, independent grounds summarized below.

First, the project would result in the emissions of GHGs as a result of both construction and operation activities. However, the project would be less GHG intensive than the emissions assumptions incorporated into the City's CAP, despite the proposed land use designation change (see Table 13), and is consistent with appropriate mandatory project design feature in the completed CAP Consistency Worksheet. Therefore, the project would not conflict with implementation of the City's CAP or attainment of the GHG reductions for calendar years 2020 and 2030 contemplated therein.

Second, the project also would result in 3.1 MT CO<sub>2</sub>e per service population per year, which would be less than the City's efficiency metric of 3.2 MT CO<sub>2</sub>e per service population per year calculated for calendar year 2030. Therefore, the project make substantial progress towards the climate stabilizing reduction targets for 2030 and 2045 established by SB 32 and EO B-55-18.

Third, the project would be consistent with and would not conflict with the applicable GHG-reducing strategies of the state that implicate the project's construction and operational components (see Table 14).

Fourth, the project is located on an infill site in a designated transit priority area that is surrounded by existing development and is linked to the community through a multi-modal transportation system to include roads, alternative transportation, pedestrian, and bicycle mobility options. Meeting the demand for housing and resident-serving uses on an infill site is consistent with multiple state policies that are designed to encourage and incentivize infill development, particularly where served by multi-modal transportation options. Thus, the project would be consistent with SANDAG's Regional Plan.

In summary, impacts with regard to GHG emissions would be **less than significant** and no mitigation is required.

### 3.5 Mitigation Measures

The project would not result in significant impacts; therefore, no mitigation is required.

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# **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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## **Air Quality and Greenhouse Gas Emissions Technical Report for the Sunrise Specific Plan**

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# APPENDIX A

## *CalEEMod Output Files*

## Sunrise Existing LI Unmitigated - San Diego County, Annual

## Sunrise Existing LI Unmitigated

### San Diego County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	282.27	1000sqft	6.48	282,270.00	0

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	509.15	CH4 Intensity (lb/MW hr)	0.02	N2O Intensity (lb/MW hr)	0.004

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated for RPS 2022

Land Use - Existing Light Industrial Land Use General Plan

Vehicle Trips -

Energy Use -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**2.0 Emissions Summary****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					
2020	0.3250	2.8950	2.4266	5.4100e-003	0.3094	0.1376	0.4470	0.1247	0.1287	0.2534	0.0000	483.7623	483.7623	0.0821	0.0000	485.8137
2021	3.3673	0.8293	0.8527	1.9100e-003	0.0585	0.0376	0.0961	0.0158	0.0353	0.0510	0.0000	170.4461	170.4461	0.0275	0.0000	171.1334
<b>Maximum</b>	<b>3.3673</b>	<b>2.8950</b>	<b>2.4266</b>	<b>5.4100e-003</b>	<b>0.3094</b>	<b>0.1376</b>	<b>0.4470</b>	<b>0.1247</b>	<b>0.1287</b>	<b>0.2534</b>	<b>0.0000</b>	<b>483.7623</b>	<b>483.7623</b>	<b>0.0821</b>	<b>0.0000</b>	<b>485.8137</b>

**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					
2020	0.3250	2.8950	2.4266	5.4100e-003	0.3094	0.1376	0.4470	0.1247	0.1287	0.2534	0.0000	483.7620	483.7620	0.0821	0.0000	485.8134
2021	3.3673	0.8293	0.8527	1.9100e-003	0.0585	0.0376	0.0961	0.0158	0.0353	0.0510	0.0000	170.4460	170.4460	0.0275	0.0000	171.1333
<b>Maximum</b>	<b>3.3673</b>	<b>2.8950</b>	<b>2.4266</b>	<b>5.4100e-003</b>	<b>0.3094</b>	<b>0.1376</b>	<b>0.4470</b>	<b>0.1247</b>	<b>0.1287</b>	<b>0.2534</b>	<b>0.0000</b>	<b>483.7620</b>	<b>483.7620</b>	<b>0.0821</b>	<b>0.0000</b>	<b>485.8134</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	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	3-1-2020	5-31-2020	1.1020	1.1020
2	6-1-2020	8-31-2020	0.9027	0.9027
3	9-1-2020	11-30-2020	0.8961	0.8961
4	12-1-2020	2-28-2021	0.8339	0.8339
5	3-1-2021	5-31-2021	3.6659	3.6659
		Highest	3.6659	3.6659

## 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	1.4297	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3800e-003
Energy	0.0176	0.1600	0.1344	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	715.8513	715.8513	0.0246	7.4500e-003	718.6863
Mobile	0.4881	2.2861	6.5179	0.0241	2.1635	0.0198	2.1833	0.5793	0.0185	0.5979	0.0000	2,218.4859	2,218.4859	0.1110	0.0000	2,221.2597
Waste						0.0000	0.0000		0.0000	0.0000	71.0489	0.0000	71.0489	4.1989	0.0000	176.0206
Water						0.0000	0.0000		0.0000	0.0000	20.7087	196.2919	217.0006	2.1347	0.0518	285.7939
<b>Total</b>	<b>1.9354</b>	<b>2.4461</b>	<b>6.6549</b>	<b>0.0250</b>	<b>2.1635</b>	<b>0.0320</b>	<b>2.1955</b>	<b>0.5793</b>	<b>0.0307</b>	<b>0.6100</b>	<b>91.7576</b>	<b>3,130.6340</b>	<b>3,222.3916</b>	<b>6.4692</b>	<b>0.0592</b>	<b>3,401.7658</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**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	1.4297	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3800e-003
Energy	0.0176	0.1600	0.1344	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	715.8513	715.8513	0.0246	7.4500e-003	718.6863
Mobile	0.4881	2.2861	6.5179	0.0241	2.1635	0.0198	2.1833	0.5793	0.0185	0.5979	0.0000	2,218.4859	2,218.4859	0.1110	0.0000	2,221.2597
Waste						0.0000	0.0000		0.0000	0.0000	71.0489	0.0000	71.0489	4.1989	0.0000	176.0206
Water						0.0000	0.0000		0.0000	0.0000	20.7087	196.2919	217.0006	2.1347	0.0518	285.7939
<b>Total</b>	<b>1.9354</b>	<b>2.4461</b>	<b>6.6549</b>	<b>0.0250</b>	<b>2.1635</b>	<b>0.0320</b>	<b>2.1955</b>	<b>0.5793</b>	<b>0.0307</b>	<b>0.6100</b>	<b>91.7576</b>	<b>3,130.6340</b>	<b>3,222.3916</b>	<b>6.4692</b>	<b>0.0592</b>	<b>3,401.7658</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

## Sunrise Existing LI Unmitigated - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2020	3/27/2020	5	20	
2	Site Preparation	Site Preparation	3/28/2020	4/10/2020	5	10	
3	Grading	Grading	4/11/2020	5/8/2020	5	20	
4	Building Construction	Building Construction	5/9/2020	3/26/2021	5	230	
5	Paving	Paving	3/27/2021	4/23/2021	5	20	
6	Architectural Coating	Architectural Coating	4/24/2021	5/21/2021	5	20	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 10**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 423,405; Non-Residential Outdoor: 141,135; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



## Sunrise Existing LI Unmitigated - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
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
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
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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

## Sunrise Existing LI Unmitigated - San Diego County, Annual

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
Architectural Coating	1	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	119.00	46.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2020

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	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
<b>Total</b>	<b>0.0331</b>	<b>0.3320</b>	<b>0.2175</b>	<b>3.9000e-004</b>		<b>0.0166</b>	<b>0.0166</b>		<b>0.0154</b>	<b>0.0154</b>	<b>0.0000</b>	<b>33.9986</b>	<b>33.9986</b>	<b>9.6000e-003</b>	<b>0.0000</b>	<b>34.2386</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.2 Demolition - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755
<b>Total</b>	<b>7.8000e-004</b>	<b>6.1000e-004</b>	<b>5.8200e-003</b>	<b>2.0000e-005</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>1.8800e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.6742</b>	<b>1.6742</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6755</b>

**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	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
<b>Total</b>	<b>0.0331</b>	<b>0.3320</b>	<b>0.2175</b>	<b>3.9000e-004</b>		<b>0.0166</b>	<b>0.0166</b>		<b>0.0154</b>	<b>0.0154</b>	<b>0.0000</b>	<b>33.9986</b>	<b>33.9986</b>	<b>9.6000e-003</b>	<b>0.0000</b>	<b>34.2385</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.2 Demolition - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755
<b>Total</b>	<b>7.8000e-004</b>	<b>6.1000e-004</b>	<b>5.8200e-003</b>	<b>2.0000e-005</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>1.8800e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.6742</b>	<b>1.6742</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6755</b>

**3.3 Site Preparation - 2020****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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
<b>Total</b>	<b>0.0204</b>	<b>0.2121</b>	<b>0.1076</b>	<b>1.9000e-004</b>	<b>0.0903</b>	<b>0.0110</b>	<b>0.1013</b>	<b>0.0497</b>	<b>0.0101</b>	<b>0.0598</b>	<b>0.0000</b>	<b>16.7153</b>	<b>16.7153</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8505</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.3 Site Preparation - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.7000e-004	3.4900e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0045	1.0045	3.0000e-005	0.0000	1.0053
<b>Total</b>	<b>4.7000e-004</b>	<b>3.7000e-004</b>	<b>3.4900e-003</b>	<b>1.0000e-005</b>	<b>1.1200e-003</b>	<b>1.0000e-005</b>	<b>1.1300e-003</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>1.0045</b>	<b>1.0045</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0053</b>

**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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
<b>Total</b>	<b>0.0204</b>	<b>0.2121</b>	<b>0.1076</b>	<b>1.9000e-004</b>	<b>0.0903</b>	<b>0.0110</b>	<b>0.1013</b>	<b>0.0497</b>	<b>0.0101</b>	<b>0.0598</b>	<b>0.0000</b>	<b>16.7153</b>	<b>16.7153</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8505</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.3 Site Preparation - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.7000e-004	3.4900e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0045	1.0045	3.0000e-005	0.0000	1.0053
<b>Total</b>	<b>4.7000e-004</b>	<b>3.7000e-004</b>	<b>3.4900e-003</b>	<b>1.0000e-005</b>	<b>1.1200e-003</b>	<b>1.0000e-005</b>	<b>1.1300e-003</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>1.0045</b>	<b>1.0045</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0053</b>

**3.4 Grading - 2020****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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0243	0.2639	0.1605	3.0000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	26.0588	26.0588	8.4300e-003	0.0000	26.2694
<b>Total</b>	<b>0.0243</b>	<b>0.2639</b>	<b>0.1605</b>	<b>3.0000e-004</b>	<b>0.0655</b>	<b>0.0127</b>	<b>0.0783</b>	<b>0.0337</b>	<b>0.0117</b>	<b>0.0454</b>	<b>0.0000</b>	<b>26.0588</b>	<b>26.0588</b>	<b>8.4300e-003</b>	<b>0.0000</b>	<b>26.2694</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.4 Grading - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755
<b>Total</b>	<b>7.8000e-004</b>	<b>6.1000e-004</b>	<b>5.8200e-003</b>	<b>2.0000e-005</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>1.8800e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.6742</b>	<b>1.6742</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6755</b>

**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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0243	0.2639	0.1605	3.0000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	26.0587	26.0587	8.4300e-003	0.0000	26.2694
<b>Total</b>	<b>0.0243</b>	<b>0.2639</b>	<b>0.1605</b>	<b>3.0000e-004</b>	<b>0.0655</b>	<b>0.0127</b>	<b>0.0783</b>	<b>0.0337</b>	<b>0.0117</b>	<b>0.0454</b>	<b>0.0000</b>	<b>26.0587</b>	<b>26.0587</b>	<b>8.4300e-003</b>	<b>0.0000</b>	<b>26.2694</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.4 Grading - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	6.1000e-004	5.8200e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6742	1.6742	5.0000e-005	0.0000	1.6755
<b>Total</b>	<b>7.8000e-004</b>	<b>6.1000e-004</b>	<b>5.8200e-003</b>	<b>2.0000e-005</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>1.8800e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.6742</b>	<b>1.6742</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6755</b>

**3.5 Building Construction - 2020****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	0.1791	1.6212	1.4237	2.2700e-003		0.0944	0.0944		0.0888	0.0888	0.0000	195.7104	195.7104	0.0478	0.0000	196.9041
<b>Total</b>	<b>0.1791</b>	<b>1.6212</b>	<b>1.4237</b>	<b>2.2700e-003</b>		<b>0.0944</b>	<b>0.0944</b>		<b>0.0888</b>	<b>0.0888</b>	<b>0.0000</b>	<b>195.7104</b>	<b>195.7104</b>	<b>0.0478</b>	<b>0.0000</b>	<b>196.9041</b>



## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0140	0.4234	0.1123	9.7000e-004	0.0233	1.9700e-003	0.0253	6.7400e-003	1.8800e-003	8.6200e-003	0.0000	94.6914	94.6914	7.4900e-003	0.0000	94.8786
Worker	0.0521	0.0408	0.3898	1.2400e-003	0.1254	8.7000e-004	0.1263	0.0333	8.0000e-004	0.0341	0.0000	112.2348	112.2348	3.2600e-003	0.0000	112.3164
<b>Total</b>	<b>0.0661</b>	<b>0.4642</b>	<b>0.5021</b>	<b>2.2100e-003</b>	<b>0.1487</b>	<b>2.8400e-003</b>	<b>0.1516</b>	<b>0.0401</b>	<b>2.6800e-003</b>	<b>0.0427</b>	<b>0.0000</b>	<b>206.9262</b>	<b>206.9262</b>	<b>0.0108</b>	<b>0.0000</b>	<b>207.1950</b>

**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	0.1791	1.6212	1.4237	2.2700e-003		0.0944	0.0944		0.0888	0.0888	0.0000	195.7102	195.7102	0.0478	0.0000	196.9039
<b>Total</b>	<b>0.1791</b>	<b>1.6212</b>	<b>1.4237</b>	<b>2.2700e-003</b>		<b>0.0944</b>	<b>0.0944</b>		<b>0.0888</b>	<b>0.0888</b>	<b>0.0000</b>	<b>195.7102</b>	<b>195.7102</b>	<b>0.0478</b>	<b>0.0000</b>	<b>196.9039</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0140	0.4234	0.1123	9.7000e-004	0.0233	1.9700e-003	0.0253	6.7400e-003	1.8800e-003	8.6200e-003	0.0000	94.6914	94.6914	7.4900e-003	0.0000	94.8786
Worker	0.0521	0.0408	0.3898	1.2400e-003	0.1254	8.7000e-004	0.1263	0.0333	8.0000e-004	0.0341	0.0000	112.2348	112.2348	3.2600e-003	0.0000	112.3164
<b>Total</b>	<b>0.0661</b>	<b>0.4642</b>	<b>0.5021</b>	<b>2.2100e-003</b>	<b>0.1487</b>	<b>2.8400e-003</b>	<b>0.1516</b>	<b>0.0401</b>	<b>2.6800e-003</b>	<b>0.0427</b>	<b>0.0000</b>	<b>206.9262</b>	<b>206.9262</b>	<b>0.0108</b>	<b>0.0000</b>	<b>207.1950</b>

**3.5 Building Construction - 2021****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	0.0580	0.5317	0.5055	8.2000e-004		0.0292	0.0292		0.0275	0.0275	0.0000	70.6494	70.6494	0.0170	0.0000	71.0755
<b>Total</b>	<b>0.0580</b>	<b>0.5317</b>	<b>0.5055</b>	<b>8.2000e-004</b>		<b>0.0292</b>	<b>0.0292</b>		<b>0.0275</b>	<b>0.0275</b>	<b>0.0000</b>	<b>70.6494</b>	<b>70.6494</b>	<b>0.0170</b>	<b>0.0000</b>	<b>71.0755</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2021****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1100e-003	0.1383	0.0367	3.5000e-004	8.4200e-003	2.8000e-004	8.7000e-003	2.4300e-003	2.7000e-004	2.7000e-003	0.0000	33.8646	33.8646	2.5900e-003	0.0000	33.9293
Worker	0.0178	0.0134	0.1316	4.3000e-004	0.0453	3.1000e-004	0.0456	0.0120	2.8000e-004	0.0123	0.0000	39.1488	39.1488	1.0900e-003	0.0000	39.1760
<b>Total</b>	<b>0.0219</b>	<b>0.1517</b>	<b>0.1683</b>	<b>7.8000e-004</b>	<b>0.0537</b>	<b>5.9000e-004</b>	<b>0.0543</b>	<b>0.0145</b>	<b>5.5000e-004</b>	<b>0.0150</b>	<b>0.0000</b>	<b>73.0134</b>	<b>73.0134</b>	<b>3.6800e-003</b>	<b>0.0000</b>	<b>73.1053</b>

**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	0.0580	0.5317	0.5055	8.2000e-004		0.0292	0.0292		0.0275	0.0275	0.0000	70.6493	70.6493	0.0170	0.0000	71.0754
<b>Total</b>	<b>0.0580</b>	<b>0.5317</b>	<b>0.5055</b>	<b>8.2000e-004</b>		<b>0.0292</b>	<b>0.0292</b>		<b>0.0275</b>	<b>0.0275</b>	<b>0.0000</b>	<b>70.6493</b>	<b>70.6493</b>	<b>0.0170</b>	<b>0.0000</b>	<b>71.0754</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2021****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1100e-003	0.1383	0.0367	3.5000e-004	8.4200e-003	2.8000e-004	8.7000e-003	2.4300e-003	2.7000e-004	2.7000e-003	0.0000	33.8646	33.8646	2.5900e-003	0.0000	33.9293
Worker	0.0178	0.0134	0.1316	4.3000e-004	0.0453	3.1000e-004	0.0456	0.0120	2.8000e-004	0.0123	0.0000	39.1488	39.1488	1.0900e-003	0.0000	39.1760
<b>Total</b>	<b>0.0219</b>	<b>0.1517</b>	<b>0.1683</b>	<b>7.8000e-004</b>	<b>0.0537</b>	<b>5.9000e-004</b>	<b>0.0543</b>	<b>0.0145</b>	<b>5.5000e-004</b>	<b>0.0150</b>	<b>0.0000</b>	<b>73.0134</b>	<b>73.0134</b>	<b>3.6800e-003</b>	<b>0.0000</b>	<b>73.1053</b>

**3.6 Paving - 2021****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	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0126</b>	<b>0.1292</b>	<b>0.1465</b>	<b>2.3000e-004</b>		<b>6.7800e-003</b>	<b>6.7800e-003</b>		<b>6.2400e-003</b>	<b>6.2400e-003</b>	<b>0.0000</b>	<b>20.0235</b>	<b>20.0235</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1854</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.6 Paving - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.5000e-004	5.4400e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6179	1.6179	4.0000e-005	0.0000	1.6191
<b>Total</b>	<b>7.3000e-004</b>	<b>5.5000e-004</b>	<b>5.4400e-003</b>	<b>2.0000e-005</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>1.8800e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.6179</b>	<b>1.6179</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.6191</b>

**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	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0126</b>	<b>0.1292</b>	<b>0.1465</b>	<b>2.3000e-004</b>		<b>6.7800e-003</b>	<b>6.7800e-003</b>		<b>6.2400e-003</b>	<b>6.2400e-003</b>	<b>0.0000</b>	<b>20.0235</b>	<b>20.0235</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1854</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.6 Paving - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.5000e-004	5.4400e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6179	1.6179	4.0000e-005	0.0000	1.6191
<b>Total</b>	<b>7.3000e-004</b>	<b>5.5000e-004</b>	<b>5.4400e-003</b>	<b>2.0000e-005</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>1.8800e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.6179</b>	<b>1.6179</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.6191</b>

**3.7 Architectural Coating - 2021****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	3.2708					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
<b>Total</b>	<b>3.2730</b>	<b>0.0153</b>	<b>0.0182</b>	<b>3.0000e-005</b>		<b>9.4000e-004</b>	<b>9.4000e-004</b>		<b>9.4000e-004</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>2.5576</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.7 Architectural Coating - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.9000e-004	8.7000e-003	3.0000e-005	2.9900e-003	2.0000e-005	3.0100e-003	8.0000e-004	2.0000e-005	8.1000e-004	0.0000	2.5887	2.5887	7.0000e-005	0.0000	2.5905
<b>Total</b>	<b>1.1800e-003</b>	<b>8.9000e-004</b>	<b>8.7000e-003</b>	<b>3.0000e-005</b>	<b>2.9900e-003</b>	<b>2.0000e-005</b>	<b>3.0100e-003</b>	<b>8.0000e-004</b>	<b>2.0000e-005</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>2.5887</b>	<b>2.5887</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.5905</b>

**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	3.2708					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
<b>Total</b>	<b>3.2730</b>	<b>0.0153</b>	<b>0.0182</b>	<b>3.0000e-005</b>		<b>9.4000e-004</b>	<b>9.4000e-004</b>		<b>9.4000e-004</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>2.5576</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**3.7 Architectural Coating - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.9000e-004	8.7000e-003	3.0000e-005	2.9900e-003	2.0000e-005	3.0100e-003	8.0000e-004	2.0000e-005	8.1000e-004	0.0000	2.5887	2.5887	7.0000e-005	0.0000	2.5905
<b>Total</b>	<b>1.1800e-003</b>	<b>8.9000e-004</b>	<b>8.7000e-003</b>	<b>3.0000e-005</b>	<b>2.9900e-003</b>	<b>2.0000e-005</b>	<b>3.0100e-003</b>	<b>8.0000e-004</b>	<b>2.0000e-005</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>2.5887</b>	<b>2.5887</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.5905</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**



## Sunrise Existing LI Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.4881	2.2861	6.5179	0.0241	2.1635	0.0198	2.1833	0.5793	0.0185	0.5979	0.0000	2,218.4859	2,218.4859	0.1110	0.0000	2,221.2597
Unmitigated	0.4881	2.2861	6.5179	0.0241	2.1635	0.0198	2.1833	0.5793	0.0185	0.5979	0.0000	2,218.4859	2,218.4859	0.1110	0.0000	2,221.2597

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,967.42	372.60	191.94	5,740,917	5,740,917
Total	1,967.42	372.60	191.94	5,740,917	5,740,917

## 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
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## 5.0 Energy Detail

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Historical Energy Use: N

## Sunrise Existing LI Unmitigated - San Diego County, Annual

## 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	0.0000	541.7230	541.7230	0.0213	4.2600e-003	543.5232
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	541.7230	541.7230	0.0213	4.2600e-003	543.5232
NaturalGas Mitigated	0.0176	0.1600	0.1344	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.1283	174.1283	3.3400e-003	3.1900e-003	175.1631
NaturalGas Unmitigated	0.0176	0.1600	0.1344	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.1283	174.1283	3.3400e-003	3.1900e-003	175.1631

## 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					
General Light Industry	3.26304e+006	0.0176	0.1600	0.1344	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.1283	174.1283	3.3400e-003	3.1900e-003	175.1631
<b>Total</b>		<b>0.0176</b>	<b>0.1600</b>	<b>0.1344</b>	<b>9.6000e-004</b>		<b>0.0122</b>	<b>0.0122</b>		<b>0.0122</b>	<b>0.0122</b>	<b>0.0000</b>	<b>174.1283</b>	<b>174.1283</b>	<b>3.3400e-003</b>	<b>3.1900e-003</b>	<b>175.1631</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**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					
General Light Industry	3.26304e+006	0.0176	0.1600	0.1344	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	174.1283	174.1283	3.3400e-003	3.1900e-003	175.1631
<b>Total</b>		<b>0.0176</b>	<b>0.1600</b>	<b>0.1344</b>	<b>9.6000e-004</b>		<b>0.0122</b>	<b>0.0122</b>		<b>0.0122</b>	<b>0.0122</b>	<b>0.0000</b>	<b>174.1283</b>	<b>174.1283</b>	<b>3.3400e-003</b>	<b>3.1900e-003</b>	<b>175.1631</b>

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	2.34566e+006	541.7230	0.0213	4.2600e-003	543.5232
<b>Total</b>		<b>541.7230</b>	<b>0.0213</b>	<b>4.2600e-003</b>	<b>543.5232</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	2.34566e+006	541.7230	0.0213	4.2600e-003	543.5232
<b>Total</b>		<b>541.7230</b>	<b>0.0213</b>	<b>4.2600e-003</b>	<b>543.5232</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	1.4297	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3800e-003
Unmitigated	1.4297	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3800e-003

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**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	0.3271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3800e-003
<b>Total</b>	<b>1.4297</b>	<b>2.0000e-005</b>	<b>2.6000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0400e-003</b>	<b>5.0400e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.3800e-003</b>

**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	0.3271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0400e-003	5.0400e-003	1.0000e-005	0.0000	5.3800e-003
<b>Total</b>	<b>1.4297</b>	<b>2.0000e-005</b>	<b>2.6000e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0400e-003</b>	<b>5.0400e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.3800e-003</b>

**7.0 Water Detail**

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	217.0006	2.1347	0.0518	285.7939
Unmitigated	217.0006	2.1347	0.0518	285.7939

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	65.2749 / 0	217.0006	2.1347	0.0518	285.7939
<b>Total</b>		<b>217.0006</b>	<b>2.1347</b>	<b>0.0518</b>	<b>285.7939</b>

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	65.2749 / 0	217.0006	2.1347	0.0518	285.7939
<b>Total</b>		<b>217.0006</b>	<b>2.1347</b>	<b>0.0518</b>	<b>285.7939</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	71.0489	4.1989	0.0000	176.0206
Unmitigated	71.0489	4.1989	0.0000	176.0206

## Sunrise Existing LI Unmitigated - San Diego County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	350.01	71.0489	4.1989	0.0000	176.0206
<b>Total</b>		<b>71.0489</b>	<b>4.1989</b>	<b>0.0000</b>	<b>176.0206</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	350.01	71.0489	4.1989	0.0000	176.0206
<b>Total</b>		<b>71.0489</b>	<b>4.1989</b>	<b>0.0000</b>	<b>176.0206</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Sunrise Existing LI Unmitigated - San Diego County, Annual

**10.0 Stationary Equipment**

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**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**

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## Sunrise Existing LI Unmitigated - San Diego County, Summer

## Sunrise Existing LI Unmitigated

### San Diego County, Summer

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	282.27	1000sqft	6.48	282,270.00	0

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	509.15	<b>CH4 Intensity (lb/MW hr)</b>	0.02	<b>N2O Intensity (lb/MW hr)</b>	0.004

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated for RPS 2022

Land Use - Existing Light Industrial Land Use General Plan

Energy Use -

Vehicle Trips -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**2.0 Emissions Summary****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					
2020	4.1425	42.4618	22.1784	0.0496	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,908.516 4	4,908.516 4	1.1964	0.0000	4,927.331 0
2021	327.3823	22.3837	20.9252	0.0491	1.2890	0.9752	2.2642	0.3489	0.9169	1.2658	0.0000	4,862.767 5	4,862.767 5	0.7394	0.0000	4,881.253 4
Maximum	327.3823	42.4618	22.1784	0.0496	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,908.516 4	4,908.516 4	1.1964	0.0000	4,927.331 0

**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					
2020	4.1425	42.4618	22.1784	0.0496	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,908.516 4	4,908.516 4	1.1964	0.0000	4,927.331 0
2021	327.3823	22.3837	20.9252	0.0491	1.2890	0.9752	2.2642	0.3489	0.9169	1.2658	0.0000	4,862.767 5	4,862.767 5	0.7394	0.0000	4,881.253 4
Maximum	327.3823	42.4618	22.1784	0.0496	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,908.516 4	4,908.516 4	1.1964	0.0000	4,927.331 0

### Sunrise Existing LI Unmitigated - San Diego County, Summer

[illegible]

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**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	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
Energy	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
Mobile	3.2852	13.5491	39.1101	0.1401	12.1792	0.1117	12.2909	3.2550	0.1043	3.3594		14,239.0046	14,239.0046	0.7107		14,256.7716
<b>Total</b>	<b>11.2171</b>	<b>14.4258</b>	<b>39.8752</b>	<b>0.1453</b>	<b>12.1792</b>	<b>0.1784</b>	<b>12.3577</b>	<b>3.2550</b>	<b>0.1710</b>	<b>3.4261</b>		<b>15,290.8121</b>	<b>15,290.8121</b>	<b>0.7310</b>	<b>0.0193</b>	<b>15,314.8332</b>

**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	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
Energy	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
Mobile	3.2852	13.5491	39.1101	0.1401	12.1792	0.1117	12.2909	3.2550	0.1043	3.3594		14,239.0046	14,239.0046	0.7107		14,256.7716
<b>Total</b>	<b>11.2171</b>	<b>14.4258</b>	<b>39.8752</b>	<b>0.1453</b>	<b>12.1792</b>	<b>0.1784</b>	<b>12.3577</b>	<b>3.2550</b>	<b>0.1710</b>	<b>3.4261</b>		<b>15,290.8121</b>	<b>15,290.8121</b>	<b>0.7310</b>	<b>0.0193</b>	<b>15,314.8332</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/24/2021	5/21/2021	5	20	
2	Building Construction	Building Construction	5/9/2020	3/26/2021	5	230	
3	Demolition	Demolition	3/1/2020	3/27/2020	5	20	
4	Grading	Grading	4/11/2020	5/8/2020	5	20	
5	Paving	Paving	3/27/2021	4/23/2021	5	20	
6	Site Preparation	Site Preparation	3/28/2020	4/10/2020	5	10	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 10****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 423,405; Non-Residential Outdoor: 141,135; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

## Sunrise Existing LI Unmitigated - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

## Sunrise Existing LI Unmitigated - San Diego County, Summer

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
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	119.00	46.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## 3.1 Mitigation Measures Construction

## 3.2 Architectural Coating - 2021

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	327.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>327.2993</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>



## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.2 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0830	0.0539	0.6366	1.9600e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		195.4658	195.4658	5.5800e-003		195.6053
<b>Total</b>	<b>0.0830</b>	<b>0.0539</b>	<b>0.6366</b>	<b>1.9600e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>195.4658</b>	<b>195.4658</b>	<b>5.5800e-003</b>		<b>195.6053</b>

**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	327.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>327.2993</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.2 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0830	0.0539	0.6366	1.9600e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		195.4658	195.4658	5.5800e-003		195.6053
<b>Total</b>	<b>0.0830</b>	<b>0.0539</b>	<b>0.6366</b>	<b>1.9600e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>195.4658</b>	<b>195.4658</b>	<b>5.5800e-003</b>		<b>195.6053</b>

**3.3 Building Construction - 2020****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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.3 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1719	5.1869	1.3214	0.0126	0.3114	0.0254	0.3368	0.0896	0.0243	0.1139		1,352.584 4	1,352.584 4	0.0998		1,355.078 9
Worker	0.4367	0.2942	3.3732	0.0101	0.9776	6.8600e-003	0.9844	0.2593	6.3200e-003	0.2656		1,002.869 0	1,002.869 0	0.0300		1,003.617 6
<b>Total</b>	<b>0.6086</b>	<b>5.4811</b>	<b>4.6946</b>	<b>0.0227</b>	<b>1.2890</b>	<b>0.0322</b>	<b>1.3212</b>	<b>0.3489</b>	<b>0.0306</b>	<b>0.3795</b>		<b>2,355.453 4</b>	<b>2,355.453 4</b>	<b>0.1297</b>		<b>2,358.696 5</b>

**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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.3 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1719	5.1869	1.3214	0.0126	0.3114	0.0254	0.3368	0.0896	0.0243	0.1139		1,352.584 4	1,352.584 4	0.0998		1,355.078 9
Worker	0.4367	0.2942	3.3732	0.0101	0.9776	6.8600e-003	0.9844	0.2593	6.3200e-003	0.2656		1,002.869 0	1,002.869 0	0.0300		1,003.617 6
<b>Total</b>	<b>0.6086</b>	<b>5.4811</b>	<b>4.6946</b>	<b>0.0227</b>	<b>1.2890</b>	<b>0.0322</b>	<b>1.3212</b>	<b>0.3489</b>	<b>0.0306</b>	<b>0.3795</b>		<b>2,355.453 4</b>	<b>2,355.453 4</b>	<b>0.1297</b>		<b>2,358.696 5</b>

**3.3 Building Construction - 2021****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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.363 9</b>	<b>2,553.363 9</b>	<b>0.6160</b>		<b>2,568.764 3</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.3 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1391	4.6842	1.1937	0.0125	0.3114	9.8400e-003	0.3212	0.0896	9.4100e-003	0.0991		1,340.2190	1,340.2190	0.0958		1,342.6130
Worker	0.4116	0.2674	3.1563	9.7300e-003	0.9776	6.7500e-003	0.9843	0.2593	6.2200e-003	0.2655		969.1846	969.1846	0.0277		969.8761
<b>Total</b>	<b>0.5507</b>	<b>4.9516</b>	<b>4.3500</b>	<b>0.0222</b>	<b>1.2890</b>	<b>0.0166</b>	<b>1.3056</b>	<b>0.3489</b>	<b>0.0156</b>	<b>0.3646</b>		<b>2,309.4036</b>	<b>2,309.4036</b>	<b>0.1234</b>		<b>2,312.4892</b>

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.3 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1391	4.6842	1.1937	0.0125	0.3114	9.8400e-003	0.3212	0.0896	9.4100e-003	0.0991		1,340.2190	1,340.2190	0.0958		1,342.6130
Worker	0.4116	0.2674	3.1563	9.7300e-003	0.9776	6.7500e-003	0.9843	0.2593	6.2200e-003	0.2655		969.1846	969.1846	0.0277		969.8761
<b>Total</b>	<b>0.5507</b>	<b>4.9516</b>	<b>4.3500</b>	<b>0.0222</b>	<b>1.2890</b>	<b>0.0166</b>	<b>1.3056</b>	<b>0.3489</b>	<b>0.0156</b>	<b>0.3646</b>		<b>2,309.4036</b>	<b>2,309.4036</b>	<b>0.1234</b>		<b>2,312.4892</b>

**3.4 Demolition - 2020****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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>		<b>1.6587</b>	<b>1.6587</b>		<b>1.5419</b>	<b>1.5419</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.4 Demolition - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0371	0.4252	1.2700e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		126.4121	126.4121	3.7700e-003		126.5064
<b>Total</b>	<b>0.0550</b>	<b>0.0371</b>	<b>0.4252</b>	<b>1.2700e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>126.4121</b>	<b>126.4121</b>	<b>3.7700e-003</b>		<b>126.5064</b>

**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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>		<b>1.6587</b>	<b>1.6587</b>		<b>1.5419</b>	<b>1.5419</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.4 Demolition - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0371	0.4252	1.2700e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		126.4121	126.4121	3.7700e-003		126.5064
<b>Total</b>	<b>0.0550</b>	<b>0.0371</b>	<b>0.4252</b>	<b>1.2700e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>126.4121</b>	<b>126.4121</b>	<b>3.7700e-003</b>		<b>126.5064</b>

**3.5 Grading - 2020****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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>		<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>



## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.5 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0371	0.4252	1.2700e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		126.4121	126.4121	3.7700e-003		126.5064
<b>Total</b>	<b>0.0550</b>	<b>0.0371</b>	<b>0.4252</b>	<b>1.2700e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>126.4121</b>	<b>126.4121</b>	<b>3.7700e-003</b>		<b>126.5064</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>	<b>0.0000</b>	<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.5 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0371	0.4252	1.2700e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		126.4121	126.4121	3.7700e-003		126.5064
<b>Total</b>	<b>0.0550</b>	<b>0.0371</b>	<b>0.4252</b>	<b>1.2700e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>126.4121</b>	<b>126.4121</b>	<b>3.7700e-003</b>		<b>126.5064</b>

**3.6 Paving - 2021****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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.6 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
<b>Total</b>	<b>0.0519</b>	<b>0.0337</b>	<b>0.3979</b>	<b>1.2300e-003</b>	<b>0.1232</b>	<b>8.5000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>7.8000e-004</b>	<b>0.0335</b>		<b>122.1661</b>	<b>122.1661</b>	<b>3.4900e-003</b>		<b>122.2533</b>

**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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.6 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
<b>Total</b>	<b>0.0519</b>	<b>0.0337</b>	<b>0.3979</b>	<b>1.2300e-003</b>	<b>0.1232</b>	<b>8.5000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>7.8000e-004</b>	<b>0.0335</b>		<b>122.1661</b>	<b>122.1661</b>	<b>3.4900e-003</b>		<b>122.2533</b>

**3.7 Site Preparation - 2020****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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>		<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.7 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>	<b>0.0000</b>	<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**3.7 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Sunrise Existing LI Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	3.2852	13.5491	39.1101	0.1401	12.1792	0.1117	12.2909	3.2550	0.1043	3.3594		14,239.00 46	14,239.00 46	0.7107		14,256.77 16
Unmitigated	3.2852	13.5491	39.1101	0.1401	12.1792	0.1117	12.2909	3.2550	0.1043	3.3594		14,239.00 46	14,239.00 46	0.7107		14,256.77 16

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,967.42	372.60	191.94	4,338,247	4,338,247
Total	1,967.42	372.60	191.94	4,338,247	4,338,247

## 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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## 5.0 Energy Detail

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 Historical Energy Use: N

## Sunrise Existing LI Unmitigated - San Diego County, Summer

## 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	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
NaturalGas Unmitigated	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958

## 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					
General Light Industry	8939.84	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
<b>Total</b>		<b>0.0964</b>	<b>0.8765</b>	<b>0.7362</b>	<b>5.2600e-003</b>		<b>0.0666</b>	<b>0.0666</b>		<b>0.0666</b>	<b>0.0666</b>		<b>1,051.7458</b>	<b>1,051.7458</b>	<b>0.0202</b>	<b>0.0193</b>	<b>1,057.9958</b>



## Sunrise Existing LI Unmitigated - San Diego County, Summer

**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					
General Light Industry	8.93984	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
<b>Total</b>		<b>0.0964</b>	<b>0.8765</b>	<b>0.7362</b>	<b>5.2600e-003</b>		<b>0.0666</b>	<b>0.0666</b>		<b>0.0666</b>	<b>0.0666</b>		<b>1,051.7458</b>	<b>1,051.7458</b>	<b>0.0202</b>	<b>0.0193</b>	<b>1,057.9958</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
Unmitigated	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659

## Sunrise Existing LI Unmitigated - San Diego County, Summer

**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	1.7922					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6800e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
<b>Total</b>	<b>7.8355</b>	<b>2.6000e-004</b>	<b>0.0289</b>	<b>0.0000</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0618</b>	<b>0.0618</b>	<b>1.6000e-004</b>		<b>0.0659</b>

**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	1.7922					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6800e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
<b>Total</b>	<b>7.8355</b>	<b>2.6000e-004</b>	<b>0.0289</b>	<b>0.0000</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0618</b>	<b>0.0618</b>	<b>1.6000e-004</b>		<b>0.0659</b>

**7.0 Water Detail**

## Sunrise Existing LI Unmitigated - San Diego County, Summer

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**7.1 Mitigation Measures Water**

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**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**9.0 Operational Offroad**

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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**

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## Sunrise Existing LI Unmitigated - San Diego County, Winter

## Sunrise Existing LI Unmitigated

### San Diego County, Winter

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	282.27	1000sqft	6.48	282,270.00	0

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	509.15	<b>CH4 Intensity (lb/MWhr)</b>	0.02	<b>N2O Intensity (lb/MWhr)</b>	0.004

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated for RPS 2022

Land Use - Existing Light Industrial Land Use General Plan

Energy Use -

Vehicle Trips -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**2.0 Emissions Summary****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					
2020	4.1513	42.4673	22.1541	0.0486	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,812.236 3	4,812.236 3	1.1961	0.0000	4,831.167 2
2021	327.3934	22.4040	20.8713	0.0482	1.2890	0.9756	2.2646	0.3489	0.9173	1.2662	0.0000	4,768.744 3	4,768.744 3	0.7439	0.0000	4,787.340 8
Maximum	327.3934	42.4673	22.1541	0.0486	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,812.236 3	4,812.236 3	1.1961	0.0000	4,831.167 2

**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					
2020	4.1513	42.4673	22.1541	0.0486	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,812.236 3	4,812.236 3	1.1961	0.0000	4,831.167 1
2021	327.3934	22.4040	20.8713	0.0482	1.2890	0.9756	2.2646	0.3489	0.9173	1.2662	0.0000	4,768.744 3	4,768.744 3	0.7439	0.0000	4,787.340 8
Maximum	327.3934	42.4673	22.1541	0.0486	18.2141	2.1985	20.4126	9.9699	2.0226	11.9925	0.0000	4,812.236 3	4,812.236 3	1.1961	0.0000	4,831.167 1

Sunrise Existing LI Unmitigated - San Diego County, Winter

[illegible]

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**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	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
Energy	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
Mobile	3.1864	13.9300	38.2608	0.1328	12.1792	0.1125	12.2917	3.2550	0.1050	3.3601		13,508.8516	13,508.8516	0.7127		13,526.6679
<b>Total</b>	<b>11.1183</b>	<b>14.8067</b>	<b>39.0259</b>	<b>0.1381</b>	<b>12.1792</b>	<b>0.1792</b>	<b>12.3584</b>	<b>3.2550</b>	<b>0.1718</b>	<b>3.4268</b>		<b>14,560.6591</b>	<b>14,560.6591</b>	<b>0.7330</b>	<b>0.0193</b>	<b>14,584.7295</b>

**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	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
Energy	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
Mobile	3.1864	13.9300	38.2608	0.1328	12.1792	0.1125	12.2917	3.2550	0.1050	3.3601		13,508.8516	13,508.8516	0.7127		13,526.6679
<b>Total</b>	<b>11.1183</b>	<b>14.8067</b>	<b>39.0259</b>	<b>0.1381</b>	<b>12.1792</b>	<b>0.1792</b>	<b>12.3584</b>	<b>3.2550</b>	<b>0.1718</b>	<b>3.4268</b>		<b>14,560.6591</b>	<b>14,560.6591</b>	<b>0.7330</b>	<b>0.0193</b>	<b>14,584.7295</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	4/24/2021	5/21/2021	5	20	
2	Building Construction	Building Construction	5/9/2020	3/26/2021	5	230	
3	Demolition	Demolition	3/1/2020	3/27/2020	5	20	
4	Grading	Grading	4/11/2020	5/8/2020	5	20	
5	Paving	Paving	3/27/2021	4/23/2021	5	20	
6	Site Preparation	Site Preparation	3/28/2020	4/10/2020	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 10**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 423,405; Non-Residential Outdoor: 141,135; Striped Parking Area: 0 (Architectural Coating – sqft)**

#### OffRoad Equipment



## Sunrise Existing LI Unmitigated - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

## Sunrise Existing LI Unmitigated - San Diego County, Winter

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
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	119.00	46.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## 3.1 Mitigation Measures Construction

## 3.2 Architectural Coating - 2021

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	327.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>327.2993</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.2 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0941	0.0605	0.5984	1.8400e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		183.4914	183.4914	5.2700e-003		183.6232
<b>Total</b>	<b>0.0941</b>	<b>0.0605</b>	<b>0.5984</b>	<b>1.8400e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>183.4914</b>	<b>183.4914</b>	<b>5.2700e-003</b>		<b>183.6232</b>

**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	327.0804					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>327.2993</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.2 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0941	0.0605	0.5984	1.8400e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		183.4914	183.4914	5.2700e-003		183.6232
<b>Total</b>	<b>0.0941</b>	<b>0.0605</b>	<b>0.5984</b>	<b>1.8400e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>183.4914</b>	<b>183.4914</b>	<b>5.2700e-003</b>		<b>183.6232</b>

**3.3 Building Construction - 2020****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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.3 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1800	5.1827	1.4665	0.0123	0.3114	0.0259	0.3373	0.0896	0.0247	0.1144		1,317.726 2	1,317.726 2	0.1060		1,320.377 0
Worker	0.4946	0.3303	3.1802	9.4500e-003	0.9776	6.8600e-003	0.9844	0.2593	6.3200e-003	0.2656		941.4470	941.4470	0.0283		942.1556
<b>Total</b>	<b>0.6746</b>	<b>5.5130</b>	<b>4.6467</b>	<b>0.0217</b>	<b>1.2890</b>	<b>0.0327</b>	<b>1.3217</b>	<b>0.3489</b>	<b>0.0311</b>	<b>0.3800</b>		<b>2,259.173 2</b>	<b>2,259.173 2</b>	<b>0.1344</b>		<b>2,262.532 7</b>

**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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.063 1</b>	<b>2,553.063 1</b>	<b>0.6229</b>		<b>2,568.634 5</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.3 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1800	5.1827	1.4665	0.0123	0.3114	0.0259	0.3373	0.0896	0.0247	0.1144		1,317.726 2	1,317.726 2	0.1060		1,320.377 0
Worker	0.4946	0.3303	3.1802	9.4500e-003	0.9776	6.8600e-003	0.9844	0.2593	6.3200e-003	0.2656		941.4470	941.4470	0.0283		942.1556
<b>Total</b>	<b>0.6746</b>	<b>5.5130</b>	<b>4.6467</b>	<b>0.0217</b>	<b>1.2890</b>	<b>0.0327</b>	<b>1.3217</b>	<b>0.3489</b>	<b>0.0311</b>	<b>0.3800</b>		<b>2,259.173 2</b>	<b>2,259.173 2</b>	<b>0.1344</b>		<b>2,262.532 7</b>

**3.3 Building Construction - 2021****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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.363 9</b>	<b>2,553.363 9</b>	<b>0.6160</b>		<b>2,568.764 3</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.3 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1466	4.6717	1.3292	0.0121	0.3114	0.0102	0.3216	0.0896	9.7900e-003	0.0994		1,305.5688	1,305.5688	0.1017		1,308.1115
Worker	0.4668	0.3002	2.9670	9.1300e-003	0.9776	6.7500e-003	0.9843	0.2593	6.2200e-003	0.2655		909.8116	909.8116	0.0261		910.4651
<b>Total</b>	<b>0.6134</b>	<b>4.9719</b>	<b>4.2961</b>	<b>0.0213</b>	<b>1.2890</b>	<b>0.0170</b>	<b>1.3060</b>	<b>0.3489</b>	<b>0.0160</b>	<b>0.3649</b>		<b>2,215.3804</b>	<b>2,215.3804</b>	<b>0.1279</b>		<b>2,218.5766</b>

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.3 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.1466	4.6717	1.3292	0.0121	0.3114	0.0102	0.3216	0.0896	9.7900e-003	0.0994		1,305.5688	1,305.5688	0.1017		1,308.1115
Worker	0.4668	0.3002	2.9670	9.1300e-003	0.9776	6.7500e-003	0.9843	0.2593	6.2200e-003	0.2655		909.8116	909.8116	0.0261		910.4651
<b>Total</b>	<b>0.6134</b>	<b>4.9719</b>	<b>4.2961</b>	<b>0.0213</b>	<b>1.2890</b>	<b>0.0170</b>	<b>1.3060</b>	<b>0.3489</b>	<b>0.0160</b>	<b>0.3649</b>		<b>2,215.3804</b>	<b>2,215.3804</b>	<b>0.1279</b>		<b>2,218.5766</b>

**3.4 Demolition - 2020****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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>		<b>1.6587</b>	<b>1.6587</b>		<b>1.5419</b>	<b>1.5419</b>		<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>



## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.4 Demolition - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0416	0.4009	1.1900e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		118.6698	118.6698	3.5700e-003		118.7591
<b>Total</b>	<b>0.0623</b>	<b>0.0416</b>	<b>0.4009</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>118.6698</b>	<b>118.6698</b>	<b>3.5700e-003</b>		<b>118.7591</b>

**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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
<b>Total</b>	<b>3.3121</b>	<b>33.2010</b>	<b>21.7532</b>	<b>0.0388</b>		<b>1.6587</b>	<b>1.6587</b>		<b>1.5419</b>	<b>1.5419</b>	<b>0.0000</b>	<b>3,747.7049</b>	<b>3,747.7049</b>	<b>1.0580</b>		<b>3,774.1536</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.4 Demolition - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0416	0.4009	1.1900e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		118.6698	118.6698	3.5700e-003		118.7591
<b>Total</b>	<b>0.0623</b>	<b>0.0416</b>	<b>0.4009</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>118.6698</b>	<b>118.6698</b>	<b>3.5700e-003</b>		<b>118.7591</b>

**3.5 Grading - 2020****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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>		<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.5 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0416	0.4009	1.1900e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		118.6698	118.6698	3.5700e-003		118.7591
<b>Total</b>	<b>0.0623</b>	<b>0.0416</b>	<b>0.4009</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>118.6698</b>	<b>118.6698</b>	<b>3.5700e-003</b>		<b>118.7591</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>	<b>0.0000</b>	<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.5 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0416	0.4009	1.1900e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		118.6698	118.6698	3.5700e-003		118.7591
<b>Total</b>	<b>0.0623</b>	<b>0.0416</b>	<b>0.4009</b>	<b>1.1900e-003</b>	<b>0.1232</b>	<b>8.6000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.0000e-004</b>	<b>0.0335</b>		<b>118.6698</b>	<b>118.6698</b>	<b>3.5700e-003</b>		<b>118.7591</b>

**3.6 Paving - 2021****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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.6 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
<b>Total</b>	<b>0.0588</b>	<b>0.0378</b>	<b>0.3740</b>	<b>1.1500e-003</b>	<b>0.1232</b>	<b>8.5000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>7.8000e-004</b>	<b>0.0335</b>		<b>114.6821</b>	<b>114.6821</b>	<b>3.2900e-003</b>		<b>114.7645</b>

**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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.6 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
<b>Total</b>	<b>0.0588</b>	<b>0.0378</b>	<b>0.3740</b>	<b>1.1500e-003</b>	<b>0.1232</b>	<b>8.5000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>7.8000e-004</b>	<b>0.0335</b>		<b>114.6821</b>	<b>114.6821</b>	<b>3.2900e-003</b>		<b>114.7645</b>

**3.7 Site Preparation - 2020****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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>		<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.7 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>	<b>0.0000</b>	<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**3.7 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**



## Sunrise Existing LI Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	3.1864	13.9300	38.2608	0.1328	12.1792	0.1125	12.2917	3.2550	0.1050	3.3601		13,508.85 16	13,508.85 16	0.7127		13,526.66 79
Unmitigated	3.1864	13.9300	38.2608	0.1328	12.1792	0.1125	12.2917	3.2550	0.1050	3.3601		13,508.85 16	13,508.85 16	0.7127		13,526.66 79

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,967.42	372.60	191.94	4,338,247	4,338,247
Total	1,967.42	372.60	191.94	4,338,247	4,338,247

## 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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## 5.0 Energy Detail

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Historical Energy Use: N

## Sunrise Existing LI Unmitigated - San Diego County, Winter

## 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	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
NaturalGas Unmitigated	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958

## 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					
General Light Industry	8939.84	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
<b>Total</b>		<b>0.0964</b>	<b>0.8765</b>	<b>0.7362</b>	<b>5.2600e-003</b>		<b>0.0666</b>	<b>0.0666</b>		<b>0.0666</b>	<b>0.0666</b>		<b>1,051.7458</b>	<b>1,051.7458</b>	<b>0.0202</b>	<b>0.0193</b>	<b>1,057.9958</b>

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**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					
General Light Industry	8.93984	0.0964	0.8765	0.7362	5.2600e-003		0.0666	0.0666		0.0666	0.0666		1,051.7458	1,051.7458	0.0202	0.0193	1,057.9958
<b>Total</b>		<b>0.0964</b>	<b>0.8765</b>	<b>0.7362</b>	<b>5.2600e-003</b>		<b>0.0666</b>	<b>0.0666</b>		<b>0.0666</b>	<b>0.0666</b>		<b>1,051.7458</b>	<b>1,051.7458</b>	<b>0.0202</b>	<b>0.0193</b>	<b>1,057.9958</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
Unmitigated	7.8355	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659

## Sunrise Existing LI Unmitigated - San Diego County, Winter

**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	1.7922					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6800e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
<b>Total</b>	<b>7.8355</b>	<b>2.6000e-004</b>	<b>0.0289</b>	<b>0.0000</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0618</b>	<b>0.0618</b>	<b>1.6000e-004</b>		<b>0.0659</b>

**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	1.7922					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6800e-003	2.6000e-004	0.0289	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0618	0.0618	1.6000e-004		0.0659
<b>Total</b>	<b>7.8355</b>	<b>2.6000e-004</b>	<b>0.0289</b>	<b>0.0000</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0618</b>	<b>0.0618</b>	<b>1.6000e-004</b>		<b>0.0659</b>

**7.0 Water Detail**

## Sunrise Existing LI Unmitigated - San Diego County, Winter

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**7.1 Mitigation Measures Water**

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**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**9.0 Operational Offroad**

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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**

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## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

## Sunrise Mobile Home Park Unmitigated

### San Diego County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	29.00	Dwelling Unit	3.56	52,200.00	83

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	509.15	CH4 Intensity (lb/MW hr)	0.02	N2O Intensity (lb/MW hr)	0.004

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated RPS 2022

Land Use - Based on general plan

Construction Phase -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	9.42	3.56
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**2.0 Emissions Summary****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					
2020	0.2234	2.0305	1.7331	2.9100e-003	0.0860	0.1147	0.2007	0.0422	0.1076	0.1499	0.0000	252.5274	252.5274	0.0595	0.0000	254.0148
2021	0.8725	0.5029	0.5082	8.6000e-004	5.6100e-003	0.0272	0.0328	1.5000e-003	0.0255	0.0270	0.0000	74.0934	74.0934	0.0173	0.0000	74.5266
<b>Maximum</b>	<b>0.8725</b>	<b>2.0305</b>	<b>1.7331</b>	<b>2.9100e-003</b>	<b>0.0860</b>	<b>0.1147</b>	<b>0.2007</b>	<b>0.0422</b>	<b>0.1076</b>	<b>0.1499</b>	<b>0.0000</b>	<b>252.5274</b>	<b>252.5274</b>	<b>0.0595</b>	<b>0.0000</b>	<b>254.0148</b>

**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					
2020	0.2234	2.0305	1.7331	2.9100e-003	0.0860	0.1147	0.2007	0.0422	0.1076	0.1499	0.0000	252.5271	252.5271	0.0595	0.0000	254.0145
2021	0.8725	0.5029	0.5082	8.6000e-004	5.6100e-003	0.0272	0.0328	1.5000e-003	0.0255	0.0270	0.0000	74.0933	74.0933	0.0173	0.0000	74.5266
<b>Maximum</b>	<b>0.8725</b>	<b>2.0305</b>	<b>1.7331</b>	<b>2.9100e-003</b>	<b>0.0860</b>	<b>0.1147</b>	<b>0.2007</b>	<b>0.0422</b>	<b>0.1076</b>	<b>0.1499</b>	<b>0.0000</b>	<b>252.5271</b>	<b>252.5271</b>	<b>0.0595</b>	<b>0.0000</b>	<b>254.0145</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	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	3-1-2020	5-31-2020	0.5977	0.5977
2	6-1-2020	8-31-2020	0.7139	0.7139
3	9-1-2020	11-30-2020	0.7064	0.7064
4	12-1-2020	2-28-2021	0.6564	0.6564
5	3-1-2021	5-31-2021	0.9265	0.9265
		Highest	0.9265	0.9265

## 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	2.1117	0.0380	2.4617	4.0800e-003		0.3161	0.3161		0.3161	0.3161	29.9558	12.9148	42.8705	0.0280	2.3600e-003	44.2723
Energy	3.6600e-003	0.0313	0.0133	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	90.4142	90.4142	2.8200e-003	1.0900e-003	90.8095
Mobile	0.0881	0.4099	1.1601	4.2600e-003	0.3821	3.5200e-003	0.3856	0.1023	3.2800e-003	0.1056	0.0000	392.5476	392.5476	0.0197	0.0000	393.0407
Waste						0.0000	0.0000		0.0000	0.0000	6.9078	0.0000	6.9078	0.4082	0.0000	17.1137
Water						0.0000	0.0000		0.0000	0.0000	0.5994	8.7383	9.3377	0.0619	1.5200e-003	11.3392
Total	2.2034	0.4792	3.6351	8.5400e-003	0.3821	0.3222	0.7042	0.1023	0.3219	0.4243	37.4630	504.6148	542.0778	0.5207	4.9700e-003	556.5754



## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**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	2.1117	0.0380	2.4617	4.0800e-003		0.3161	0.3161		0.3161	0.3161	29.9558	12.9148	42.8705	0.0280	2.3600e-003	44.2723
Energy	3.6600e-003	0.0313	0.0133	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	90.4142	90.4142	2.8200e-003	1.0900e-003	90.8095
Mobile	0.0881	0.4099	1.1601	4.2600e-003	0.3821	3.5200e-003	0.3856	0.1023	3.2800e-003	0.1056	0.0000	392.5476	392.5476	0.0197	0.0000	393.0407
Waste						0.0000	0.0000		0.0000	0.0000	6.9078	0.0000	6.9078	0.4082	0.0000	17.1137
Water						0.0000	0.0000		0.0000	0.0000	0.5994	8.7383	9.3377	0.0619	1.5200e-003	11.3392
<b>Total</b>	<b>2.2034</b>	<b>0.4792</b>	<b>3.6351</b>	<b>8.5400e-003</b>	<b>0.3821</b>	<b>0.3222</b>	<b>0.7042</b>	<b>0.1023</b>	<b>0.3219</b>	<b>0.4243</b>	<b>37.4630</b>	<b>504.6148</b>	<b>542.0778</b>	<b>0.5207</b>	<b>4.9700e-003</b>	<b>556.5754</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/28/2020	4/3/2020	5	5	
2	Grading	Grading	4/4/2020	4/15/2020	5	8	
3	Building Construction	Building Construction	4/16/2020	3/3/2021	5	230	
4	Paving	Paving	3/4/2021	3/29/2021	5	18	
5	Architectural Coating	Architectural Coating	3/30/2021	4/22/2021	5	18	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 4**

**Acres of Paving: 0**

**Residential Indoor: 105,705; Residential Outdoor: 35,235; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

**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
Architectural Coating	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	3.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.1 Mitigation Measures Construction****3.2 Site Preparation - 2020****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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4253
<b>Total</b>	<b>0.0102</b>	<b>0.1060</b>	<b>0.0538</b>	<b>1.0000e-004</b>	<b>0.0452</b>	<b>5.4900e-003</b>	<b>0.0507</b>	<b>0.0248</b>	<b>5.0500e-003</b>	<b>0.0299</b>	<b>0.0000</b>	<b>8.3577</b>	<b>8.3577</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>8.4253</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.2 Site Preparation - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
<b>Total</b>	<b>2.3000e-004</b>	<b>1.8000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>5.6000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5023</b>	<b>0.5023</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5026</b>

**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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4252
<b>Total</b>	<b>0.0102</b>	<b>0.1060</b>	<b>0.0538</b>	<b>1.0000e-004</b>	<b>0.0452</b>	<b>5.4900e-003</b>	<b>0.0507</b>	<b>0.0248</b>	<b>5.0500e-003</b>	<b>0.0299</b>	<b>0.0000</b>	<b>8.3577</b>	<b>8.3577</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>8.4252</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.2 Site Preparation - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
<b>Total</b>	<b>2.3000e-004</b>	<b>1.8000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>5.6000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5023</b>	<b>0.5023</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5026</b>

**3.3 Grading - 2020****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					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
<b>Total</b>	<b>9.7200e-003</b>	<b>0.1055</b>	<b>0.0642</b>	<b>1.2000e-004</b>	<b>0.0262</b>	<b>5.0900e-003</b>	<b>0.0313</b>	<b>0.0135</b>	<b>4.6900e-003</b>	<b>0.0182</b>	<b>0.0000</b>	<b>10.4235</b>	<b>10.4235</b>	<b>3.3700e-003</b>	<b>0.0000</b>	<b>10.5078</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.3 Grading - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.3300e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6697	0.6697	2.0000e-005	0.0000	0.6702
<b>Total</b>	<b>3.1000e-004</b>	<b>2.4000e-004</b>	<b>2.3300e-003</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6697</b>	<b>0.6697</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6702</b>

**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					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
<b>Total</b>	<b>9.7200e-003</b>	<b>0.1055</b>	<b>0.0642</b>	<b>1.2000e-004</b>	<b>0.0262</b>	<b>5.0900e-003</b>	<b>0.0313</b>	<b>0.0135</b>	<b>4.6900e-003</b>	<b>0.0182</b>	<b>0.0000</b>	<b>10.4235</b>	<b>10.4235</b>	<b>3.3700e-003</b>	<b>0.0000</b>	<b>10.5078</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.3 Grading - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.3300e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6697	0.6697	2.0000e-005	0.0000	0.6702
<b>Total</b>	<b>3.1000e-004</b>	<b>2.4000e-004</b>	<b>2.3300e-003</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>1.0000e-005</b>	<b>7.5000e-004</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6697</b>	<b>0.6697</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6702</b>

**3.4 Building Construction - 2020****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	0.1972	1.7843	1.5669	2.5000e-003		0.1039	0.1039		0.0977	0.0977	0.0000	215.3973	215.3973	0.0526	0.0000	216.7110
<b>Total</b>	<b>0.1972</b>	<b>1.7843</b>	<b>1.5669</b>	<b>2.5000e-003</b>		<b>0.1039</b>	<b>0.1039</b>		<b>0.0977</b>	<b>0.0977</b>	<b>0.0000</b>	<b>215.3973</b>	<b>215.3973</b>	<b>0.0526</b>	<b>0.0000</b>	<b>216.7110</b>



## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.4 Building Construction - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-003	0.0304	8.0600e-003	7.0000e-005	1.6700e-003	1.4000e-004	1.8200e-003	4.8000e-004	1.4000e-004	6.2000e-004	0.0000	6.7967	6.7967	5.4000e-004	0.0000	6.8102
Worker	4.8200e-003	3.7700e-003	0.0361	1.1000e-004	0.0116	8.0000e-005	0.0117	3.0800e-003	7.0000e-005	3.1500e-003	0.0000	10.3802	10.3802	3.0000e-004	0.0000	10.3878
<b>Total</b>	<b>5.8200e-003</b>	<b>0.0342</b>	<b>0.0441</b>	<b>1.8000e-004</b>	<b>0.0133</b>	<b>2.2000e-004</b>	<b>0.0135</b>	<b>3.5600e-003</b>	<b>2.1000e-004</b>	<b>3.7700e-003</b>	<b>0.0000</b>	<b>17.1770</b>	<b>17.1770</b>	<b>8.4000e-004</b>	<b>0.0000</b>	<b>17.1979</b>

**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	0.1972	1.7843	1.5669	2.5000e-003		0.1039	0.1039		0.0977	0.0977	0.0000	215.3970	215.3970	0.0526	0.0000	216.7108
<b>Total</b>	<b>0.1972</b>	<b>1.7843</b>	<b>1.5669</b>	<b>2.5000e-003</b>		<b>0.1039</b>	<b>0.1039</b>		<b>0.0977</b>	<b>0.0977</b>	<b>0.0000</b>	<b>215.3970</b>	<b>215.3970</b>	<b>0.0526</b>	<b>0.0000</b>	<b>216.7108</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.4 Building Construction - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-003	0.0304	8.0600e-003	7.0000e-005	1.6700e-003	1.4000e-004	1.8200e-003	4.8000e-004	1.4000e-004	6.2000e-004	0.0000	6.7967	6.7967	5.4000e-004	0.0000	6.8102
Worker	4.8200e-003	3.7700e-003	0.0361	1.1000e-004	0.0116	8.0000e-005	0.0117	3.0800e-003	7.0000e-005	3.1500e-003	0.0000	10.3802	10.3802	3.0000e-004	0.0000	10.3878
<b>Total</b>	<b>5.8200e-003</b>	<b>0.0342</b>	<b>0.0441</b>	<b>1.8000e-004</b>	<b>0.0133</b>	<b>2.2000e-004</b>	<b>0.0135</b>	<b>3.5600e-003</b>	<b>2.1000e-004</b>	<b>3.7700e-003</b>	<b>0.0000</b>	<b>17.1770</b>	<b>17.1770</b>	<b>8.4000e-004</b>	<b>0.0000</b>	<b>17.1979</b>

**3.4 Building Construction - 2021****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	0.0418	0.3835	0.3647	5.9000e-004		0.0211	0.0211		0.0198	0.0198	0.0000	50.9602	50.9602	0.0123	0.0000	51.2676
<b>Total</b>	<b>0.0418</b>	<b>0.3835</b>	<b>0.3647</b>	<b>5.9000e-004</b>		<b>0.0211</b>	<b>0.0211</b>		<b>0.0198</b>	<b>0.0198</b>	<b>0.0000</b>	<b>50.9602</b>	<b>50.9602</b>	<b>0.0123</b>	<b>0.0000</b>	<b>51.2676</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.4 Building Construction - 2021****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	6.5100e-003	1.7300e-003	2.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.5931	1.5931	1.2000e-004	0.0000	1.5961
Worker	1.0800e-003	8.1000e-004	7.9800e-003	3.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.3730	2.3730	7.0000e-005	0.0000	2.3746
<b>Total</b>	<b>1.2700e-003</b>	<b>7.3200e-003</b>	<b>9.7100e-003</b>	<b>5.0000e-005</b>	<b>3.1400e-003</b>	<b>3.0000e-005</b>	<b>3.1700e-003</b>	<b>8.4000e-004</b>	<b>3.0000e-005</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>3.9660</b>	<b>3.9660</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>3.9707</b>

**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	0.0418	0.3835	0.3647	5.9000e-004		0.0211	0.0211		0.0198	0.0198	0.0000	50.9601	50.9601	0.0123	0.0000	51.2675
<b>Total</b>	<b>0.0418</b>	<b>0.3835</b>	<b>0.3647</b>	<b>5.9000e-004</b>		<b>0.0211</b>	<b>0.0211</b>		<b>0.0198</b>	<b>0.0198</b>	<b>0.0000</b>	<b>50.9601</b>	<b>50.9601</b>	<b>0.0123</b>	<b>0.0000</b>	<b>51.2675</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.4 Building Construction - 2021****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	6.5100e-003	1.7300e-003	2.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.5931	1.5931	1.2000e-004	0.0000	1.5961
Worker	1.0800e-003	8.1000e-004	7.9800e-003	3.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.3730	2.3730	7.0000e-005	0.0000	2.3746
<b>Total</b>	<b>1.2700e-003</b>	<b>7.3200e-003</b>	<b>9.7100e-003</b>	<b>5.0000e-005</b>	<b>3.1400e-003</b>	<b>3.0000e-005</b>	<b>3.1700e-003</b>	<b>8.4000e-004</b>	<b>3.0000e-005</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>3.9660</b>	<b>3.9660</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>3.9707</b>

**3.5 Paving - 2021****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	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7336	14.7336	4.6300e-003	0.0000	14.8493
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.8500e-003</b>	<b>0.0976</b>	<b>0.1103</b>	<b>1.7000e-004</b>		<b>5.2100e-003</b>	<b>5.2100e-003</b>		<b>4.8100e-003</b>	<b>4.8100e-003</b>	<b>0.0000</b>	<b>14.7336</b>	<b>14.7336</b>	<b>4.6300e-003</b>	<b>0.0000</b>	<b>14.8493</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.5 Paving - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.6000e-004	6.5300e-003	2.0000e-005	2.2400e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.9415	1.9415	5.0000e-005	0.0000	1.9429
<b>Total</b>	<b>8.8000e-004</b>	<b>6.6000e-004</b>	<b>6.5300e-003</b>	<b>2.0000e-005</b>	<b>2.2400e-003</b>	<b>2.0000e-005</b>	<b>2.2600e-003</b>	<b>6.0000e-004</b>	<b>1.0000e-005</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>1.9415</b>	<b>1.9415</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.9429</b>

**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	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7335	14.7335	4.6300e-003	0.0000	14.8493
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.8500e-003</b>	<b>0.0976</b>	<b>0.1103</b>	<b>1.7000e-004</b>		<b>5.2100e-003</b>	<b>5.2100e-003</b>		<b>4.8100e-003</b>	<b>4.8100e-003</b>	<b>0.0000</b>	<b>14.7335</b>	<b>14.7335</b>	<b>4.6300e-003</b>	<b>0.0000</b>	<b>14.8493</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.5 Paving - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.6000e-004	6.5300e-003	2.0000e-005	2.2400e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.9415	1.9415	5.0000e-005	0.0000	1.9429
<b>Total</b>	<b>8.8000e-004</b>	<b>6.6000e-004</b>	<b>6.5300e-003</b>	<b>2.0000e-005</b>	<b>2.2400e-003</b>	<b>2.0000e-005</b>	<b>2.2600e-003</b>	<b>6.0000e-004</b>	<b>1.0000e-005</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>1.9415</b>	<b>1.9415</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.9429</b>

**3.6 Architectural Coating - 2021****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	0.8166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
<b>Total</b>	<b>0.8185</b>	<b>0.0137</b>	<b>0.0164</b>	<b>3.0000e-005</b>		<b>8.5000e-004</b>	<b>8.5000e-004</b>		<b>8.5000e-004</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>2.2979</b>	<b>2.2979</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>2.3019</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.6 Architectural Coating - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	6.5000e-004	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1942	0.1942	1.0000e-005	0.0000	0.1943
<b>Total</b>	<b>9.0000e-005</b>	<b>7.0000e-005</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.1942</b>	<b>0.1942</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1943</b>

**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	0.8166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
<b>Total</b>	<b>0.8185</b>	<b>0.0137</b>	<b>0.0164</b>	<b>3.0000e-005</b>		<b>8.5000e-004</b>	<b>8.5000e-004</b>		<b>8.5000e-004</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>2.2979</b>	<b>2.2979</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>2.3019</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**3.6 Architectural Coating - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	6.5000e-004	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1942	0.1942	1.0000e-005	0.0000	0.1943
<b>Total</b>	<b>9.0000e-005</b>	<b>7.0000e-005</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.1942</b>	<b>0.1942</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1943</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**



## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.0881	0.4099	1.1601	4.2600e-003	0.3821	3.5200e-003	0.3856	0.1023	3.2800e-003	0.1056	0.0000	392.5476	392.5476	0.0197	0.0000	393.0407
Unmitigated	0.0881	0.4099	1.1601	4.2600e-003	0.3821	3.5200e-003	0.3856	0.1023	3.2800e-003	0.1056	0.0000	392.5476	392.5476	0.0197	0.0000	393.0407

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	276.08	287.39	249.98	1,013,859	1,013,859
Total	276.08	287.39	249.98	1,013,859	1,013,859

## 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
Single Family Housing	16.80	7.10	7.90	41.60	18.80	39.60	86	11	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## 5.0 Energy Detail

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Historical Energy Use: N

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

## 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	0.0000	54.2218	54.2218	2.1300e-003	4.3000e-004	54.4019
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	54.2218	54.2218	2.1300e-003	4.3000e-004	54.4019
NaturalGas Mitigated	3.6600e-003	0.0313	0.0133	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	36.1924	36.1924	6.9000e-004	6.6000e-004	36.4075
NaturalGas Unmitigated	3.6600e-003	0.0313	0.0133	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	36.1924	36.1924	6.9000e-004	6.6000e-004	36.4075

## 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					
Single Family Housing	678221	3.6600e-003	0.0313	0.0133	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	36.1924	36.1924	6.9000e-004	6.6000e-004	36.4075
<b>Total</b>		<b>3.6600e-003</b>	<b>0.0313</b>	<b>0.0133</b>	<b>2.0000e-004</b>		<b>2.5300e-003</b>	<b>2.5300e-003</b>		<b>2.5300e-003</b>	<b>2.5300e-003</b>	<b>0.0000</b>	<b>36.1924</b>	<b>36.1924</b>	<b>6.9000e-004</b>	<b>6.6000e-004</b>	<b>36.4075</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**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					
Single Family Housing	678221	3.6600e-003	0.0313	0.0133	2.0000e-004		2.5300e-003	2.5300e-003		2.5300e-003	2.5300e-003	0.0000	36.1924	36.1924	6.9000e-004	6.6000e-004	36.4075
<b>Total</b>		<b>3.6600e-003</b>	<b>0.0313</b>	<b>0.0133</b>	<b>2.0000e-004</b>		<b>2.5300e-003</b>	<b>2.5300e-003</b>		<b>2.5300e-003</b>	<b>2.5300e-003</b>	<b>0.0000</b>	<b>36.1924</b>	<b>36.1924</b>	<b>6.9000e-004</b>	<b>6.6000e-004</b>	<b>36.4075</b>

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	234781	54.2218	2.1300e-003	4.3000e-004	54.4019
<b>Total</b>		<b>54.2218</b>	<b>2.1300e-003</b>	<b>4.3000e-004</b>	<b>54.4019</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	234781	54.2218	2.1300e-003	4.3000e-004	54.4019
<b>Total</b>		<b>54.2218</b>	<b>2.1300e-003</b>	<b>4.3000e-004</b>	<b>54.4019</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	2.1117	0.0380	2.4617	4.0800e-003		0.3161	0.3161		0.3161	0.3161	29.9558	12.9148	42.8705	0.0280	2.3600e-003	44.2723
Unmitigated	2.1117	0.0380	2.4617	4.0800e-003		0.3161	0.3161		0.3161	0.3161	29.9558	12.9148	42.8705	0.0280	2.3600e-003	44.2723

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**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	0.0817					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2039					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.8196	0.0355	2.2462	4.0700e-003		0.3149	0.3149		0.3149	0.3149	29.9558	12.5630	42.5188	0.0276	2.3600e-003	43.9121
Landscaping	6.5100e-003	2.4900e-003	0.2156	1.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	0.3517	0.3517	3.4000e-004	0.0000	0.3602
<b>Total</b>	<b>2.1117</b>	<b>0.0380</b>	<b>2.4617</b>	<b>4.0800e-003</b>		<b>0.3161</b>	<b>0.3161</b>		<b>0.3161</b>	<b>0.3161</b>	<b>29.9558</b>	<b>12.9148</b>	<b>42.8705</b>	<b>0.0280</b>	<b>2.3600e-003</b>	<b>44.2723</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**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	0.0817					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2039					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.8196	0.0355	2.2462	4.0700e-003		0.3149	0.3149		0.3149	0.3149	29.9558	12.5630	42.5188	0.0276	2.3600e-003	43.9121
Landscaping	6.5100e-003	2.4900e-003	0.2156	1.0000e-005		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	0.3517	0.3517	3.4000e-004	0.0000	0.3602
<b>Total</b>	<b>2.1117</b>	<b>0.0380</b>	<b>2.4617</b>	<b>4.0800e-003</b>		<b>0.3161</b>	<b>0.3161</b>		<b>0.3161</b>	<b>0.3161</b>	<b>29.9558</b>	<b>12.9148</b>	<b>42.8705</b>	<b>0.0280</b>	<b>2.3600e-003</b>	<b>44.2723</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.3377	0.0619	1.5200e-003	11.3392
Unmitigated	9.3377	0.0619	1.5200e-003	11.3392

## 7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.88947 / 1.19119	9.3377	0.0619	1.5200e-003	11.3392
<b>Total</b>		<b>9.3377</b>	<b>0.0619</b>	<b>1.5200e-003</b>	<b>11.3392</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.88947 / 1.19119	9.3377	0.0619	1.5200e-003	11.3392
<b>Total</b>		<b>9.3377</b>	<b>0.0619</b>	<b>1.5200e-003</b>	<b>11.3392</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.9078	0.4082	0.0000	17.1137
Unmitigated	6.9078	0.4082	0.0000	17.1137



## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	34.03	6.9078	0.4082	0.0000	17.1137
<b>Total</b>		<b>6.9078</b>	<b>0.4082</b>	<b>0.0000</b>	<b>17.1137</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	34.03	6.9078	0.4082	0.0000	17.1137
<b>Total</b>		<b>6.9078</b>	<b>0.4082</b>	<b>0.0000</b>	<b>17.1137</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Sunrise Mobile Home Park Unmitigated - San Diego County, Annual

**10.0 Stationary Equipment**

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**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**

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## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

## Sunrise Mobile Home Park Unmitigated

### San Diego County, Summer

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	29.00	Dwelling Unit	3.56	52,200.00	83

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	509.15	CH4 Intensity (lb/MW hr)	0.02	N2O Intensity (lb/MW hr)	0.004

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated RPS 2022

Land Use - Based on general plan

Construction Phase -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	9.42	3.56
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**2.0 Emissions Summary****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					
2020	4.1680	42.4835	22.2643	0.0404	18.2962	2.1990	20.4951	9.9917	2.0231	12.0147	0.0000	3,918.7626	3,918.7626	1.1986	0.0000	3,948.7285
2021	90.9586	17.7589	17.0401	0.0289	0.2555	0.9601	1.1062	0.0678	0.9026	0.9418	0.0000	2,759.5819	2,759.5819	0.6254	0.0000	2,775.2180
<b>Maximum</b>	<b>90.9586</b>	<b>42.4835</b>	<b>22.2643</b>	<b>0.0404</b>	<b>18.2962</b>	<b>2.1990</b>	<b>20.4951</b>	<b>9.9917</b>	<b>2.0231</b>	<b>12.0147</b>	<b>0.0000</b>	<b>3,918.7626</b>	<b>3,918.7626</b>	<b>1.1986</b>	<b>0.0000</b>	<b>3,948.7285</b>

**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					
2020	4.1680	42.4835	22.2643	0.0404	18.2962	2.1990	20.4951	9.9917	2.0231	12.0147	0.0000	3,918.7626	3,918.7626	1.1986	0.0000	3,948.7285
2021	90.9586	17.7589	17.0401	0.0289	0.2555	0.9601	1.1062	0.0678	0.9026	0.9418	0.0000	2,759.5819	2,759.5819	0.6254	0.0000	2,775.2180
<b>Maximum</b>	<b>90.9586</b>	<b>42.4835</b>	<b>22.2643</b>	<b>0.0404</b>	<b>18.2962</b>	<b>2.1990</b>	<b>20.4951</b>	<b>9.9917</b>	<b>2.0231</b>	<b>12.0147</b>	<b>0.0000</b>	<b>3,918.7626</b>	<b>3,918.7626</b>	<b>1.1986</b>	<b>0.0000</b>	<b>3,948.7285</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

[illegible]

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**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	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157
Energy	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
Mobile	0.5339	2.2829	6.9646	0.0256	2.2551	0.0202	2.2753	0.6027	0.0189	0.6216		2,604.7043	2,604.7043	0.1267		2,607.8715
<b>Total</b>	<b>46.5723</b>	<b>3.3485</b>	<b>64.2166</b>	<b>0.1261</b>	<b>2.2551</b>	<b>7.7286</b>	<b>9.9836</b>	<b>0.6027</b>	<b>7.7272</b>	<b>8.3299</b>	<b>805.3802</b>	<b>3,165.3816</b>	<b>3,970.7618</b>	<b>0.8783</b>	<b>0.0674</b>	<b>4,012.7908</b>

**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	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157
Energy	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
Mobile	0.5339	2.2829	6.9646	0.0256	2.2551	0.0202	2.2753	0.6027	0.0189	0.6216		2,604.7043	2,604.7043	0.1267		2,607.8715
<b>Total</b>	<b>46.5723</b>	<b>3.3485</b>	<b>64.2166</b>	<b>0.1261</b>	<b>2.2551</b>	<b>7.7286</b>	<b>9.9836</b>	<b>0.6027</b>	<b>7.7272</b>	<b>8.3299</b>	<b>805.3802</b>	<b>3,165.3816</b>	<b>3,970.7618</b>	<b>0.8783</b>	<b>0.0674</b>	<b>4,012.7908</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/28/2020	4/3/2020	5	5	
2	Grading	Grading	4/4/2020	4/15/2020	5	8	
3	Building Construction	Building Construction	4/16/2020	3/3/2021	5	230	
4	Paving	Paving	3/4/2021	3/29/2021	5	18	
5	Architectural Coating	Architectural Coating	3/30/2021	4/22/2021	5	18	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 4****Acres of Paving: 0****Residential Indoor: 105,705; Residential Outdoor: 35,235; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

**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
Architectural Coating	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	3.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT



## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.1 Mitigation Measures Construction****3.2 Site Preparation - 2020****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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>		<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.2 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>	<b>0.0000</b>	<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.2 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**3.3 Grading - 2020****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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>		<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.3 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		194.7176	194.7176	5.6600e-003		194.8592
<b>Total</b>	<b>0.0763</b>	<b>0.0551</b>	<b>0.6256</b>	<b>1.9500e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>194.7176</b>	<b>194.7176</b>	<b>5.6600e-003</b>		<b>194.8592</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>	<b>0.0000</b>	<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.3 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		194.7176	194.7176	5.6600e-003		194.8592
<b>Total</b>	<b>0.0763</b>	<b>0.0551</b>	<b>0.6256</b>	<b>1.9500e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>194.7176</b>	<b>194.7176</b>	<b>5.6600e-003</b>		<b>194.8592</b>

**3.4 Building Construction - 2020****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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.4 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0106	0.3237	0.0820	7.6000e-004	0.0184	1.5100e-003	0.0199	5.2900e-003	1.4400e-003	6.7300e-003		81.5152	81.5152	6.1900e-003		81.6699
Worker	0.0509	0.0367	0.4170	1.3000e-003	0.1277	8.6000e-004	0.1286	0.0339	7.9000e-004	0.0347		129.8117	129.8117	3.7800e-003		129.9061
<b>Total</b>	<b>0.0614</b>	<b>0.3604</b>	<b>0.4990</b>	<b>2.0600e-003</b>	<b>0.1461</b>	<b>2.3700e-003</b>	<b>0.1485</b>	<b>0.0392</b>	<b>2.2300e-003</b>	<b>0.0414</b>		<b>211.3269</b>	<b>211.3269</b>	<b>9.9700e-003</b>		<b>211.5760</b>

**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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.4 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0106	0.3237	0.0820	7.6000e-004	0.0184	1.5100e-003	0.0199	5.2900e-003	1.4400e-003	6.7300e-003		81.5152	81.5152	6.1900e-003		81.6699
Worker	0.0509	0.0367	0.4170	1.3000e-003	0.1277	8.6000e-004	0.1286	0.0339	7.9000e-004	0.0347		129.8117	129.8117	3.7800e-003		129.9061
<b>Total</b>	<b>0.0614</b>	<b>0.3604</b>	<b>0.4990</b>	<b>2.0600e-003</b>	<b>0.1461</b>	<b>2.3700e-003</b>	<b>0.1485</b>	<b>0.0392</b>	<b>2.2300e-003</b>	<b>0.0414</b>		<b>211.3269</b>	<b>211.3269</b>	<b>9.9700e-003</b>		<b>211.5760</b>

**3.4 Building Construction - 2021****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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.4 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	8.5800e-003	0.2934	0.0741	7.5000e-004	0.0184	5.9000e-004	0.0190	5.2900e-003	5.6000e-004	5.8500e-003		80.7694	80.7694	5.9400e-003		80.9178
Worker	0.0480	0.0334	0.3908	1.2600e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		125.4486	125.4486	3.4900e-003		125.5359
<b>Total</b>	<b>0.0566</b>	<b>0.3268</b>	<b>0.4649</b>	<b>2.0100e-003</b>	<b>0.1461</b>	<b>1.4400e-003</b>	<b>0.1475</b>	<b>0.0392</b>	<b>1.3400e-003</b>	<b>0.0405</b>		<b>206.2180</b>	<b>206.2180</b>	<b>9.4300e-003</b>		<b>206.4537</b>

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>



## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.4 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	8.5800e-003	0.2934	0.0741	7.5000e-004	0.0184	5.9000e-004	0.0190	5.2900e-003	5.6000e-004	5.8500e-003		80.7694	80.7694	5.9400e-003		80.9178
Worker	0.0480	0.0334	0.3908	1.2600e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		125.4486	125.4486	3.4900e-003		125.5359
<b>Total</b>	<b>0.0566</b>	<b>0.3268</b>	<b>0.4649</b>	<b>2.0100e-003</b>	<b>0.1461</b>	<b>1.4400e-003</b>	<b>0.1475</b>	<b>0.0392</b>	<b>1.3400e-003</b>	<b>0.0405</b>		<b>206.2180</b>	<b>206.2180</b>	<b>9.4300e-003</b>		<b>206.4537</b>

**3.5 Paving - 2021****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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0940</b>	<b>10.8399</b>	<b>12.2603</b>	<b>0.0189</b>		<b>0.5788</b>	<b>0.5788</b>		<b>0.5342</b>	<b>0.5342</b>		<b>1,804.5523</b>	<b>1,804.5523</b>	<b>0.5670</b>		<b>1,818.7270</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.5 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0669	0.7815	2.5200e-003	0.2555	1.7000e-003	0.2572	0.0678	1.5600e-003	0.0693		250.8973	250.8973	6.9800e-003		251.0718
<b>Total</b>	<b>0.0960</b>	<b>0.0669</b>	<b>0.7815</b>	<b>2.5200e-003</b>	<b>0.2555</b>	<b>1.7000e-003</b>	<b>0.2572</b>	<b>0.0678</b>	<b>1.5600e-003</b>	<b>0.0693</b>		<b>250.8973</b>	<b>250.8973</b>	<b>6.9800e-003</b>		<b>251.0718</b>

**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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0940</b>	<b>10.8399</b>	<b>12.2603</b>	<b>0.0189</b>		<b>0.5788</b>	<b>0.5788</b>		<b>0.5342</b>	<b>0.5342</b>	<b>0.0000</b>	<b>1,804.5523</b>	<b>1,804.5523</b>	<b>0.5670</b>		<b>1,818.7270</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.5 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.0669	0.7815	2.5200e-003	0.2555	1.7000e-003	0.2572	0.0678	1.5600e-003	0.0693		250.8973	250.8973	6.9800e-003		251.0718
<b>Total</b>	<b>0.0960</b>	<b>0.0669</b>	<b>0.7815</b>	<b>2.5200e-003</b>	<b>0.2555</b>	<b>1.7000e-003</b>	<b>0.2572</b>	<b>0.0678</b>	<b>1.5600e-003</b>	<b>0.0693</b>		<b>250.8973</b>	<b>250.8973</b>	<b>6.9800e-003</b>		<b>251.0718</b>

**3.6 Architectural Coating - 2021****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	90.7301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>90.9490</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	9.6000e-003	6.6800e-003	0.0782	2.5000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.0897	25.0897	7.0000e-004		25.1072
<b>Total</b>	<b>9.6000e-003</b>	<b>6.6800e-003</b>	<b>0.0782</b>	<b>2.5000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>25.0897</b>	<b>25.0897</b>	<b>7.0000e-004</b>		<b>25.1072</b>

**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	90.7301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>90.9490</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	9.6000e-003	6.6800e-003	0.0782	2.5000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.0897	25.0897	7.0000e-004		25.1072
<b>Total</b>	<b>9.6000e-003</b>	<b>6.6800e-003</b>	<b>0.0782</b>	<b>2.5000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>25.0897</b>	<b>25.0897</b>	<b>7.0000e-004</b>		<b>25.1072</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	0.5339	2.2829	6.9646	0.0256	2.2551	0.0202	2.2753	0.6027	0.0189	0.6216		2,604.704 3	2,604.704 3	0.1267		2,607.871 5
Unmitigated	0.5339	2.2829	6.9646	0.0256	2.2551	0.0202	2.2753	0.6027	0.0189	0.6216		2,604.704 3	2,604.704 3	0.1267		2,607.871 5

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	276.08	287.39	249.98	1,013,859	1,013,859
Total	276.08	287.39	249.98	1,013,859	1,013,859

## 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
Single Family Housing	16.80	7.10	7.90	41.60	18.80	39.60	86	11	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## 5.0 Energy Detail

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Historical Energy Use: N

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

## 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	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
NaturalGas Unmitigated	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036

## 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					
Single Family Housing	1858.14	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
<b>Total</b>		<b>0.0200</b>	<b>0.1712</b>	<b>0.0729</b>	<b>1.0900e-003</b>		<b>0.0138</b>	<b>0.0138</b>		<b>0.0138</b>	<b>0.0138</b>		<b>218.6046</b>	<b>218.6046</b>	<b>4.1900e-003</b>	<b>4.0100e-003</b>	<b>219.9036</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**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					
Single Family Housing	1.85814	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
<b>Total</b>		<b>0.0200</b>	<b>0.1712</b>	<b>0.0729</b>	<b>1.0900e-003</b>		<b>0.0138</b>	<b>0.0138</b>		<b>0.0138</b>	<b>0.0138</b>		<b>218.6046</b>	<b>218.6046</b>	<b>4.1900e-003</b>	<b>4.0100e-003</b>	<b>219.9036</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157
Unmitigated	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157



## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**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	0.4474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	44.3815	0.8667	54.7841	0.0993		7.6813	7.6813		7.6813	7.6813	805.3802	337.7647	1,143.1449	0.7432	0.0634	1,180.6038
Landscaping	0.0723	0.0276	2.3951	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1600e-003		4.4119
<b>Total</b>	<b>46.0183</b>	<b>0.8943</b>	<b>57.1792</b>	<b>0.0994</b>		<b>7.6945</b>	<b>7.6945</b>		<b>7.6945</b>	<b>7.6945</b>	<b>805.3802</b>	<b>342.0727</b>	<b>1,147.4529</b>	<b>0.7474</b>	<b>0.0634</b>	<b>1,185.0157</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**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	0.4474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	44.3815	0.8667	54.7841	0.0993		7.6813	7.6813		7.6813	7.6813	805.3802	337.7647	1,143.1449	0.7432	0.0634	1,180.6038
Landscaping	0.0723	0.0276	2.3951	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1600e-003		4.4119
<b>Total</b>	<b>46.0183</b>	<b>0.8943</b>	<b>57.1792</b>	<b>0.0994</b>		<b>7.6945</b>	<b>7.6945</b>		<b>7.6945</b>	<b>7.6945</b>	<b>805.3802</b>	<b>342.0727</b>	<b>1,147.4529</b>	<b>0.7474</b>	<b>0.0634</b>	<b>1,185.0157</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Summer

**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**

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## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

## Sunrise Mobile Home Park Unmitigated

### San Diego County, Winter

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	29.00	Dwelling Unit	3.56	52,200.00	83

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	509.15	CH4 Intensity (lb/MW hr)	0.02	N2O Intensity (lb/MW hr)	0.004

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated RPS 2022

Land Use - Based on general plan

Construction Phase -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	9.42	3.56
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**2.0 Emissions Summary****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					
2020	4.1826	42.4915	22.2068	0.0402	18.2962	2.1990	20.4951	9.9917	2.0231	12.0147	0.0000	3,904.3578	3,904.3578	1.1982	0.0000	3,934.3130
2021	90.9602	17.7618	17.0181	0.0288	0.2555	0.9601	1.1062	0.0678	0.9027	0.9418	0.0000	2,749.5864	2,749.5864	0.6256	0.0000	2,765.2266
Maximum	90.9602	42.4915	22.2068	0.0402	18.2962	2.1990	20.4951	9.9917	2.0231	12.0147	0.0000	3,904.3578	3,904.3578	1.1982	0.0000	3,934.3130

**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					
2020	4.1826	42.4915	22.2068	0.0402	18.2962	2.1990	20.4951	9.9917	2.0231	12.0147	0.0000	3,904.3578	3,904.3578	1.1982	0.0000	3,934.3130
2021	90.9602	17.7618	17.0181	0.0288	0.2555	0.9601	1.1062	0.0678	0.9027	0.9418	0.0000	2,749.5864	2,749.5864	0.6256	0.0000	2,765.2266
Maximum	90.9602	42.4915	22.2068	0.0402	18.2962	2.1990	20.4951	9.9917	2.0231	12.0147	0.0000	3,904.3578	3,904.3578	1.1982	0.0000	3,934.3130

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

[illegible]

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**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	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157
Energy	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
Mobile	0.5184	2.3573	6.7297	0.0243	2.2551	0.0204	2.2754	0.6027	0.0190	0.6217		2,472.2755	2,472.2755	0.1263		2,475.4332
<b>Total</b>	<b>46.5568</b>	<b>3.4229</b>	<b>63.9818</b>	<b>0.1248</b>	<b>2.2551</b>	<b>7.7287</b>	<b>9.9838</b>	<b>0.6027</b>	<b>7.7273</b>	<b>8.3300</b>	<b>805.3802</b>	<b>3,032.9528</b>	<b>3,838.3330</b>	<b>0.8779</b>	<b>0.0674</b>	<b>3,880.3525</b>

**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	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157
Energy	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
Mobile	0.5184	2.3573	6.7297	0.0243	2.2551	0.0204	2.2754	0.6027	0.0190	0.6217		2,472.2755	2,472.2755	0.1263		2,475.4332
<b>Total</b>	<b>46.5568</b>	<b>3.4229</b>	<b>63.9818</b>	<b>0.1248</b>	<b>2.2551</b>	<b>7.7287</b>	<b>9.9838</b>	<b>0.6027</b>	<b>7.7273</b>	<b>8.3300</b>	<b>805.3802</b>	<b>3,032.9528</b>	<b>3,838.3330</b>	<b>0.8779</b>	<b>0.0674</b>	<b>3,880.3525</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/28/2020	4/3/2020	5	5	
2	Grading	Grading	4/4/2020	4/15/2020	5	8	
3	Building Construction	Building Construction	4/16/2020	3/3/2021	5	230	
4	Paving	Paving	3/4/2021	3/29/2021	5	18	
5	Architectural Coating	Architectural Coating	3/30/2021	4/22/2021	5	18	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 4****Acres of Paving: 0****Residential Indoor: 105,705; Residential Outdoor: 35,235; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**



## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

**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
Architectural Coating	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	3.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.1 Mitigation Measures Construction****3.2 Site Preparation - 2020****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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>		<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.2 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
<b>Total</b>	<b>4.0765</b>	<b>42.4173</b>	<b>21.5136</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.1974</b>	<b>20.2637</b>	<b>9.9307</b>	<b>2.0216</b>	<b>11.9523</b>	<b>0.0000</b>	<b>3,685.1016</b>	<b>3,685.1016</b>	<b>1.1918</b>		<b>3,714.8975</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.2 Site Preparation - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**3.3 Grading - 2020****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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>		<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.3 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		182.7135	182.7135	5.3100e-003		182.8463
<b>Total</b>	<b>0.0885</b>	<b>0.0618</b>	<b>0.5777</b>	<b>1.8300e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>182.7135</b>	<b>182.7135</b>	<b>5.3100e-003</b>		<b>182.8463</b>

**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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.2734</b>	<b>7.8258</b>	<b>3.3675</b>	<b>1.1716</b>	<b>4.5390</b>	<b>0.0000</b>	<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.3 Grading - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		182.7135	182.7135	5.3100e-003		182.8463
<b>Total</b>	<b>0.0885</b>	<b>0.0618</b>	<b>0.5777</b>	<b>1.8300e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>182.7135</b>	<b>182.7135</b>	<b>5.3100e-003</b>		<b>182.8463</b>

**3.4 Building Construction - 2020****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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.4 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0111	0.3229	0.0915	7.4000e-004	0.0184	1.5400e-003	0.0199	5.2900e-003	1.4700e-003	6.7600e-003		79.2418	79.2418	6.6000e-003		79.4068
Worker	0.0590	0.0412	0.3851	1.2200e-003	0.1277	8.6000e-004	0.1286	0.0339	7.9000e-004	0.0347		121.8090	121.8090	3.5400e-003		121.8975
<b>Total</b>	<b>0.0701</b>	<b>0.3641</b>	<b>0.4766</b>	<b>1.9600e-003</b>	<b>0.1461</b>	<b>2.4000e-003</b>	<b>0.1485</b>	<b>0.0392</b>	<b>2.2600e-003</b>	<b>0.0414</b>		<b>201.0508</b>	<b>201.0508</b>	<b>0.0101</b>		<b>201.3043</b>

**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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>	<b>0.0000</b>	<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.4 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0111	0.3229	0.0915	7.4000e-004	0.0184	1.5400e-003	0.0199	5.2900e-003	1.4700e-003	6.7600e-003		79.2418	79.2418	6.6000e-003		79.4068
Worker	0.0590	0.0412	0.3851	1.2200e-003	0.1277	8.6000e-004	0.1286	0.0339	7.9000e-004	0.0347		121.8090	121.8090	3.5400e-003		121.8975
<b>Total</b>	<b>0.0701</b>	<b>0.3641</b>	<b>0.4766</b>	<b>1.9600e-003</b>	<b>0.1461</b>	<b>2.4000e-003</b>	<b>0.1485</b>	<b>0.0392</b>	<b>2.2600e-003</b>	<b>0.0414</b>		<b>201.0508</b>	<b>201.0508</b>	<b>0.0101</b>		<b>201.3043</b>

**3.4 Building Construction - 2021****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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>



## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.4 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	9.0600e-003	0.2922	0.0830	7.3000e-004	0.0184	6.1000e-004	0.0190	5.2900e-003	5.9000e-004	5.8800e-003		78.5096	78.5096	6.3200e-003		78.6677
Worker	0.0558	0.0375	0.3599	1.1800e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		117.7129	117.7129	3.2700e-003		117.7946
<b>Total</b>	<b>0.0648</b>	<b>0.3297</b>	<b>0.4429</b>	<b>1.9100e-003</b>	<b>0.1461</b>	<b>1.4600e-003</b>	<b>0.1476</b>	<b>0.0392</b>	<b>1.3700e-003</b>	<b>0.0405</b>		<b>196.2225</b>	<b>196.2225</b>	<b>9.5900e-003</b>		<b>196.4623</b>

**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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.4 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	9.0600e-003	0.2922	0.0830	7.3000e-004	0.0184	6.1000e-004	0.0190	5.2900e-003	5.9000e-004	5.8800e-003		78.5096	78.5096	6.3200e-003		78.6677
Worker	0.0558	0.0375	0.3599	1.1800e-003	0.1277	8.5000e-004	0.1286	0.0339	7.8000e-004	0.0347		117.7129	117.7129	3.2700e-003		117.7946
<b>Total</b>	<b>0.0648</b>	<b>0.3297</b>	<b>0.4429</b>	<b>1.9100e-003</b>	<b>0.1461</b>	<b>1.4600e-003</b>	<b>0.1476</b>	<b>0.0392</b>	<b>1.3700e-003</b>	<b>0.0405</b>		<b>196.2225</b>	<b>196.2225</b>	<b>9.5900e-003</b>		<b>196.4623</b>

**3.5 Paving - 2021****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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0940</b>	<b>10.8399</b>	<b>12.2603</b>	<b>0.0189</b>		<b>0.5788</b>	<b>0.5788</b>		<b>0.5342</b>	<b>0.5342</b>		<b>1,804.5523</b>	<b>1,804.5523</b>	<b>0.5670</b>		<b>1,818.7270</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.5 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1116	0.0750	0.7199	2.3600e-003	0.2555	1.7000e-003	0.2572	0.0678	1.5600e-003	0.0693		235.4258	235.4258	6.5400e-003		235.5892
<b>Total</b>	<b>0.1116</b>	<b>0.0750</b>	<b>0.7199</b>	<b>2.3600e-003</b>	<b>0.2555</b>	<b>1.7000e-003</b>	<b>0.2572</b>	<b>0.0678</b>	<b>1.5600e-003</b>	<b>0.0693</b>		<b>235.4258</b>	<b>235.4258</b>	<b>6.5400e-003</b>		<b>235.5892</b>

**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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0940</b>	<b>10.8399</b>	<b>12.2603</b>	<b>0.0189</b>		<b>0.5788</b>	<b>0.5788</b>		<b>0.5342</b>	<b>0.5342</b>	<b>0.0000</b>	<b>1,804.5523</b>	<b>1,804.5523</b>	<b>0.5670</b>		<b>1,818.7270</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.5 Paving - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1116	0.0750	0.7199	2.3600e-003	0.2555	1.7000e-003	0.2572	0.0678	1.5600e-003	0.0693		235.4258	235.4258	6.5400e-003		235.5892
<b>Total</b>	<b>0.1116</b>	<b>0.0750</b>	<b>0.7199</b>	<b>2.3600e-003</b>	<b>0.2555</b>	<b>1.7000e-003</b>	<b>0.2572</b>	<b>0.0678</b>	<b>1.5600e-003</b>	<b>0.0693</b>		<b>235.4258</b>	<b>235.4258</b>	<b>6.5400e-003</b>		<b>235.5892</b>

**3.6 Architectural Coating - 2021****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	90.7301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>90.9490</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0112	7.5000e-003	0.0720	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		23.5426	23.5426	6.5000e-004		23.5589
<b>Total</b>	<b>0.0112</b>	<b>7.5000e-003</b>	<b>0.0720</b>	<b>2.4000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>23.5426</b>	<b>23.5426</b>	<b>6.5000e-004</b>		<b>23.5589</b>

**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	90.7301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>90.9490</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0112	7.5000e-003	0.0720	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		23.5426	23.5426	6.5000e-004		23.5589
<b>Total</b>	<b>0.0112</b>	<b>7.5000e-003</b>	<b>0.0720</b>	<b>2.4000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>23.5426</b>	<b>23.5426</b>	<b>6.5000e-004</b>		<b>23.5589</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	0.5184	2.3573	6.7297	0.0243	2.2551	0.0204	2.2754	0.6027	0.0190	0.6217		2,472.2755	2,472.2755	0.1263		2,475.4332
Unmitigated	0.5184	2.3573	6.7297	0.0243	2.2551	0.0204	2.2754	0.6027	0.0190	0.6217		2,472.2755	2,472.2755	0.1263		2,475.4332

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	276.08	287.39	249.98	1,013,859	1,013,859
Total	276.08	287.39	249.98	1,013,859	1,013,859

## 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
Single Family Housing	16.80	7.10	7.90	41.60	18.80	39.60	86	11	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## 5.0 Energy Detail

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Historical Energy Use: N

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**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	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
NaturalGas Unmitigated	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036

**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					
Single Family Housing	1858.14	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
<b>Total</b>		<b>0.0200</b>	<b>0.1712</b>	<b>0.0729</b>	<b>1.0900e-003</b>		<b>0.0138</b>	<b>0.0138</b>		<b>0.0138</b>	<b>0.0138</b>		<b>218.6046</b>	<b>218.6046</b>	<b>4.1900e-003</b>	<b>4.0100e-003</b>	<b>219.9036</b>



## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**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					
Single Family Housing	1.85814	0.0200	0.1712	0.0729	1.0900e-003		0.0138	0.0138		0.0138	0.0138		218.6046	218.6046	4.1900e-003	4.0100e-003	219.9036
<b>Total</b>		<b>0.0200</b>	<b>0.1712</b>	<b>0.0729</b>	<b>1.0900e-003</b>		<b>0.0138</b>	<b>0.0138</b>		<b>0.0138</b>	<b>0.0138</b>		<b>218.6046</b>	<b>218.6046</b>	<b>4.1900e-003</b>	<b>4.0100e-003</b>	<b>219.9036</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157
Unmitigated	46.0183	0.8943	57.1792	0.0994		7.6945	7.6945		7.6945	7.6945	805.3802	342.0727	1,147.4529	0.7474	0.0634	1,185.0157

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**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	0.4474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	44.3815	0.8667	54.7841	0.0993		7.6813	7.6813		7.6813	7.6813	805.3802	337.7647	1,143.1449	0.7432	0.0634	1,180.6038
Landscaping	0.0723	0.0276	2.3951	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1600e-003		4.4119
<b>Total</b>	<b>46.0183</b>	<b>0.8943</b>	<b>57.1792</b>	<b>0.0994</b>		<b>7.6945</b>	<b>7.6945</b>		<b>7.6945</b>	<b>7.6945</b>	<b>805.3802</b>	<b>342.0727</b>	<b>1,147.4529</b>	<b>0.7474</b>	<b>0.0634</b>	<b>1,185.0157</b>

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**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	0.4474					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	44.3815	0.8667	54.7841	0.0993		7.6813	7.6813		7.6813	7.6813	805.3802	337.7647	1,143.1449	0.7432	0.0634	1,180.6038
Landscaping	0.0723	0.0276	2.3951	1.3000e-004		0.0132	0.0132		0.0132	0.0132		4.3080	4.3080	4.1600e-003		4.4119
<b>Total</b>	<b>46.0183</b>	<b>0.8943</b>	<b>57.1792</b>	<b>0.0994</b>		<b>7.6945</b>	<b>7.6945</b>		<b>7.6945</b>	<b>7.6945</b>	<b>805.3802</b>	<b>342.0727</b>	<b>1,147.4529</b>	<b>0.7474</b>	<b>0.0634</b>	<b>1,185.0157</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

## Sunrise Mobile Home Park Unmitigated - San Diego County, Winter

**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**

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## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

## Sunrise Sewer Option #2 - Haul Truck Trips San Diego County, Annual

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.00	1000sqft	0.02	1,000.00	0

#### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Sewer Option #2 Offsite Haul Truck Trip calculations only.

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Haul truck trip emissions only.

Trips and VMT - Haul truck trip emissions only.

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	106.00
tblConstructionPhase	PhaseEndDate	4/1/2020	8/25/2020
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	70.00

## 2.0 Emissions Summary

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## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

## 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					
2020	2.8000e-004	9.9600e-003	2.2800e-003	3.0000e-005	6.0000e-004	3.0000e-005	6.3000e-004	1.6000e-004	3.0000e-005	1.9000e-004	0.0000	2.6994	2.6994	2.4000e-004	0.0000	2.7055
Maximum	2.8000e-004	9.9600e-003	2.2800e-003	3.0000e-005	6.0000e-004	3.0000e-005	6.3000e-004	1.6000e-004	3.0000e-005	1.9000e-004	0.0000	2.6994	2.6994	2.4000e-004	0.0000	2.7055

### 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					
2020	2.8000e-004	9.9600e-003	2.2800e-003	3.0000e-005	6.0000e-004	3.0000e-005	6.3000e-004	1.6000e-004	3.0000e-005	1.9000e-004	0.0000	2.6994	2.6994	2.4000e-004	0.0000	2.7055
Maximum	2.8000e-004	9.9600e-003	2.2800e-003	3.0000e-005	6.0000e-004	3.0000e-005	6.3000e-004	1.6000e-004	3.0000e-005	1.9000e-004	0.0000	2.6994	2.6994	2.4000e-004	0.0000	2.7055

[illegible]

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-14-2020	6-13-2020	0.0051	0.0051
2	6-14-2020	9-13-2020	0.0049	0.0049
		Highest	0.0051	0.0051

## 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	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0000e-004	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005



## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**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	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/31/2020	8/25/2020	5	106	

**Acres of Grading (Site Preparation Phase): 0**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**Acres of Grading (Grading Phase): 0****Acres of Paving: 0.02****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37

**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
Grading	0	0.00	0.00	70.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**3.2 Grading - 2020****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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	2.8000e-004	9.9600e-003	2.2800e-003	3.0000e-005	6.0000e-004	3.0000e-005	6.3000e-004	1.6000e-004	3.0000e-005	1.9000e-004	0.0000	2.6994	2.6994	2.4000e-004	0.0000	2.7055
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.8000e-004</b>	<b>9.9600e-003</b>	<b>2.2800e-003</b>	<b>3.0000e-005</b>	<b>6.0000e-004</b>	<b>3.0000e-005</b>	<b>6.3000e-004</b>	<b>1.6000e-004</b>	<b>3.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.6994</b>	<b>2.6994</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.7055</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**3.2 Grading - 2020****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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	2.8000e-004	9.9600e-003	2.2800e-003	3.0000e-005	6.0000e-004	3.0000e-005	6.3000e-004	1.6000e-004	3.0000e-005	1.9000e-004	0.0000	2.6994	2.6994	2.4000e-004	0.0000	2.7055
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.8000e-004</b>	<b>9.9600e-003</b>	<b>2.2800e-003</b>	<b>3.0000e-005</b>	<b>6.0000e-004</b>	<b>3.0000e-005</b>	<b>6.3000e-004</b>	<b>1.6000e-004</b>	<b>3.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.6994</b>	<b>2.6994</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.7055</b>

**4.0 Operational Detail - Mobile**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 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
Other Asphalt Surfaces	14.70	6.60	6.60	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
Other Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

[illegible]

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

[illegible]

**Mitigated**

[illegible]

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**



## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	1.0000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

## 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	3.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**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	3.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## 7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Annual

**10.0 Stationary Equipment**

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**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**

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## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

## Sunrise Sewer Option #2 - Haul Truck Trips

### San Diego County, Summer

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.00	1000sqft	0.02	1,000.00	0

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Sewer Option #2 Offsite Haul Truck Trip calculations only.

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Haul truck trip emissions only.

Trips and VMT - Haul truck trip emissions only.

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	106.00
tblConstructionPhase	PhaseEndDate	4/1/2020	8/25/2020
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	70.00

## 2.0 Emissions Summary

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## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

## 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					
2020	5.2200e-003	0.1842	0.0418	5.2000e-004	0.0115	5.9000e-004	0.0121	3.1600e-003	5.6000e-004	3.7200e-003	0.0000	56.5499	56.5499	4.9800e-003	0.0000	56.6744
Maximum	5.2200e-003	0.1842	0.0418	5.2000e-004	0.0115	5.9000e-004	0.0121	3.1600e-003	5.6000e-004	3.7200e-003	0.0000	56.5499	56.5499	4.9800e-003	0.0000	56.6744

### 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					
2020	5.2200e-003	0.1842	0.0418	5.2000e-004	0.0115	5.9000e-004	0.0121	3.1600e-003	5.6000e-004	3.7200e-003	0.0000	56.5499	56.5499	4.9800e-003	0.0000	56.6744
Maximum	5.2200e-003	0.1842	0.0418	5.2000e-004	0.0115	5.9000e-004	0.0121	3.1600e-003	5.6000e-004	3.7200e-003	0.0000	56.5499	56.5499	4.9800e-003	0.0000	56.6744

[illegible]

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

**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	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**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	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/31/2020	8/25/2020	5	106	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.02

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37

#### 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
Grading	0	0.00	0.00	70.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

**3.1 Mitigation Measures Construction****3.2 Grading - 2020****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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	5.2200e-003	0.1842	0.0418	5.2000e-004	0.0115	5.9000e-004	0.0121	3.1600e-003	5.6000e-004	3.7200e-003		56.5499	56.5499	4.9800e-003		56.6744
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.2200e-003</b>	<b>0.1842</b>	<b>0.0418</b>	<b>5.2000e-004</b>	<b>0.0115</b>	<b>5.9000e-004</b>	<b>0.0121</b>	<b>3.1600e-003</b>	<b>5.6000e-004</b>	<b>3.7200e-003</b>		<b>56.5499</b>	<b>56.5499</b>	<b>4.9800e-003</b>		<b>56.6744</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

**3.2 Grading - 2020****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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	5.2200e-003	0.1842	0.0418	5.2000e-004	0.0115	5.9000e-004	0.0121	3.1600e-003	5.6000e-004	3.7200e-003		56.5499	56.5499	4.9800e-003		56.6744
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.2200e-003</b>	<b>0.1842</b>	<b>0.0418</b>	<b>5.2000e-004</b>	<b>0.0115</b>	<b>5.9000e-004</b>	<b>0.0121</b>	<b>3.1600e-003</b>	<b>5.6000e-004</b>	<b>3.7200e-003</b>		<b>56.5499</b>	<b>56.5499</b>	<b>4.9800e-003</b>		<b>56.6744</b>

**4.0 Operational Detail - Mobile**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 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
Other Asphalt Surfaces	14.70	6.60	6.60	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
Other Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

**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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**



## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

## 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	1.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

**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	1.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Summer

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**

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## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

## Sunrise Sewer Option #2 - Haul Truck Trips

### San Diego County, Winter

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.00	1000sqft	0.02	1,000.00	0

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Sewer Option #2 Offsite Haul Truck Trip calculations only.

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Haul truck trip emissions only.

Trips and VMT - Haul truck trip emissions only.

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	106.00
tblConstructionPhase	PhaseEndDate	4/1/2020	8/25/2020
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	70.00

## 2.0 Emissions Summary

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## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

## 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					
2020	5.3600e-003	0.1860	0.0446	5.1000e-004	0.0115	6.0000e-004	0.0121	3.1600e-003	5.7000e-004	3.7400e-003	0.0000	55.5797	55.5797	5.1500e-003	0.0000	55.7085
Maximum	5.3600e-003	0.1860	0.0446	5.1000e-004	0.0115	6.0000e-004	0.0121	3.1600e-003	5.7000e-004	3.7400e-003	0.0000	55.5797	55.5797	5.1500e-003	0.0000	55.7085

### 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					
2020	5.3600e-003	0.1860	0.0446	5.1000e-004	0.0115	6.0000e-004	0.0121	3.1600e-003	5.7000e-004	3.7400e-003	0.0000	55.5797	55.5797	5.1500e-003	0.0000	55.7085
Maximum	5.3600e-003	0.1860	0.0446	5.1000e-004	0.0115	6.0000e-004	0.0121	3.1600e-003	5.7000e-004	3.7400e-003	0.0000	55.5797	55.5797	5.1500e-003	0.0000	55.7085

[illegible]

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

**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	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**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	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/31/2020	8/25/2020	5	106	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0.02****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37

**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
Grading	0	0.00	0.00	70.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT



## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

**3.1 Mitigation Measures Construction****3.2 Grading - 2020****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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	5.3600e-003	0.1860	0.0446	5.1000e-004	0.0115	6.0000e-004	0.0121	3.1600e-003	5.7000e-004	3.7400e-003		55.5797	55.5797	5.1500e-003		55.7085
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.3600e-003</b>	<b>0.1860</b>	<b>0.0446</b>	<b>5.1000e-004</b>	<b>0.0115</b>	<b>6.0000e-004</b>	<b>0.0121</b>	<b>3.1600e-003</b>	<b>5.7000e-004</b>	<b>3.7400e-003</b>		<b>55.5797</b>	<b>55.5797</b>	<b>5.1500e-003</b>		<b>55.7085</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

**3.2 Grading - 2020****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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**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	5.3600e-003	0.1860	0.0446	5.1000e-004	0.0115	6.0000e-004	0.0121	3.1600e-003	5.7000e-004	3.7400e-003		55.5797	55.5797	5.1500e-003		55.7085
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>5.3600e-003</b>	<b>0.1860</b>	<b>0.0446</b>	<b>5.1000e-004</b>	<b>0.0115</b>	<b>6.0000e-004</b>	<b>0.0121</b>	<b>3.1600e-003</b>	<b>5.7000e-004</b>	<b>3.7400e-003</b>		<b>55.5797</b>	<b>55.5797</b>	<b>5.1500e-003</b>		<b>55.7085</b>

**4.0 Operational Detail - Mobile**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 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
Other Asphalt Surfaces	14.70	6.60	6.60	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
Other Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive 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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

**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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	5.5000e-004	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

## 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	1.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

**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	1.9000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

## Sunrise Sewer Option #2 - Haul Truck Trips - San Diego County, Winter

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**

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Hauling 10,000 cubic yards - San Diego County, Annual

## Hauling 10,000 cubic yards San Diego County, Annual

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	720.49	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction haul 10,000 cubic yards soil only.

Land Use - haul 10,000 cubic yards soil construction emissions only

Construction Phase - haul 10,000 cubic yards soil construction emissions only

Off-road Equipment - Haul 10,000 cy soil construction only

Trips and VMT - Haul 10,000 cy soil construction only

Grading - Haul 10,000 cy soil construction only

## Hauling 10,000 cubic yards - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	106.00
tblGrading	MaterialExported	0.00	10,000.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

## 2.0 Emissions Summary

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## Hauling 10,000 cubic yards - San Diego County, Annual

## 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					
2020	0.0622	0.7784	0.2597	9.4000e-004	0.0174	0.0300	0.0474	6.3500e-003	0.0276	0.0340	0.0000	87.9823	87.9823	0.0172	0.0000	88.4125
Maximum	0.0622	0.7784	0.2597	9.4000e-004	0.0174	0.0300	0.0474	6.3500e-003	0.0276	0.0340	0.0000	87.9823	87.9823	0.0172	0.0000	88.4125

### 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					
2020	0.0622	0.7784	0.2597	9.4000e-004	0.0174	0.0300	0.0474	6.3500e-003	0.0276	0.0340	0.0000	87.9823	87.9823	0.0172	0.0000	88.4124
Maximum	0.0622	0.7784	0.2597	9.4000e-004	0.0174	0.0300	0.0474	6.3500e-003	0.0276	0.0340	0.0000	87.9823	87.9823	0.0172	0.0000	88.4124

[illegible]

## Hauling 10,000 cubic yards - San Diego County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2020	5-31-2020	0.4459	0.4459
2	6-1-2020	8-31-2020	0.4005	0.4005
		Highest	0.4459	0.4459

## 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	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	3.3327	3.3327	1.2000e-004	3.0000e-005	3.3458
Mobile	1.7300e-003	8.1000e-003	0.0231	9.0000e-005	7.6600e-003	7.0000e-005	7.7300e-003	2.0500e-003	7.0000e-005	2.1200e-003	0.0000	7.8595	7.8595	3.9000e-004	0.0000	7.8693
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.9841	1.0574	7.5700e-003	1.9000e-004	1.3023
<b>Total</b>	<b>6.8600e-003</b>	<b>8.6700e-003</b>	<b>0.0236</b>	<b>9.0000e-005</b>	<b>7.6600e-003</b>	<b>1.1000e-004</b>	<b>7.7700e-003</b>	<b>2.0500e-003</b>	<b>1.1000e-004</b>	<b>2.1600e-003</b>	<b>0.3251</b>	<b>12.1762</b>	<b>12.5013</b>	<b>0.0230</b>	<b>2.2000e-004</b>	<b>13.1410</b>

## Hauling 10,000 cubic yards - San Diego County, Annual

**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	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	3.3327	3.3327	1.2000e-004	3.0000e-005	3.3458
Mobile	1.7300e-003	8.1000e-003	0.0231	9.0000e-005	7.6600e-003	7.0000e-005	7.7300e-003	2.0500e-003	7.0000e-005	2.1200e-003	0.0000	7.8595	7.8595	3.9000e-004	0.0000	7.8693
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.9841	1.0574	7.5700e-003	1.9000e-004	1.3023
<b>Total</b>	<b>6.8600e-003</b>	<b>8.6700e-003</b>	<b>0.0236</b>	<b>9.0000e-005</b>	<b>7.6600e-003</b>	<b>1.1000e-004</b>	<b>7.7700e-003</b>	<b>2.0500e-003</b>	<b>1.1000e-004</b>	<b>2.1600e-003</b>	<b>0.3251</b>	<b>12.1762</b>	<b>12.5013</b>	<b>0.0230</b>	<b>2.2000e-004</b>	<b>13.1410</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/14/2020	8/10/2020	5	106	

**Acres of Grading (Site Preparation Phase): 0**

Hauling 10,000 cubic yards - San Diego County, Annual

**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Rubber Tired Dozers	1	8.00	247	0.40

**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
Grading	4	0.00	0.00	1,250.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Hauling 10,000 cubic yards - San Diego County, Annual

**3.2 Grading - 2020****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					6.7200e-003	0.0000	6.7200e-003	3.4200e-003	0.0000	3.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0572	0.6006	0.2190	4.5000e-004		0.0294	0.0294		0.0271	0.0271	0.0000	39.7793	39.7793	0.0129	0.0000	40.1009
<b>Total</b>	<b>0.0572</b>	<b>0.6006</b>	<b>0.2190</b>	<b>4.5000e-004</b>	<b>6.7200e-003</b>	<b>0.0294</b>	<b>0.0361</b>	<b>3.4200e-003</b>	<b>0.0271</b>	<b>0.0305</b>	<b>0.0000</b>	<b>39.7793</b>	<b>39.7793</b>	<b>0.0129</b>	<b>0.0000</b>	<b>40.1009</b>

**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	5.0000e-003	0.1778	0.0407	4.9000e-004	0.0107	5.6000e-004	0.0113	2.9400e-003	5.4000e-004	3.4700e-003	0.0000	48.2031	48.2031	4.3400e-003	0.0000	48.3116
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0000e-003</b>	<b>0.1778</b>	<b>0.0407</b>	<b>4.9000e-004</b>	<b>0.0107</b>	<b>5.6000e-004</b>	<b>0.0113</b>	<b>2.9400e-003</b>	<b>5.4000e-004</b>	<b>3.4700e-003</b>	<b>0.0000</b>	<b>48.2031</b>	<b>48.2031</b>	<b>4.3400e-003</b>	<b>0.0000</b>	<b>48.3116</b>

## Hauling 10,000 cubic yards - San Diego County, Annual

**3.2 Grading - 2020****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					6.7200e-003	0.0000	6.7200e-003	3.4200e-003	0.0000	3.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0572	0.6006	0.2190	4.5000e-004		0.0294	0.0294		0.0271	0.0271	0.0000	39.7792	39.7792	0.0129	0.0000	40.1009
<b>Total</b>	<b>0.0572</b>	<b>0.6006</b>	<b>0.2190</b>	<b>4.5000e-004</b>	<b>6.7200e-003</b>	<b>0.0294</b>	<b>0.0361</b>	<b>3.4200e-003</b>	<b>0.0271</b>	<b>0.0305</b>	<b>0.0000</b>	<b>39.7792</b>	<b>39.7792</b>	<b>0.0129</b>	<b>0.0000</b>	<b>40.1009</b>

**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	5.0000e-003	0.1778	0.0407	4.9000e-004	0.0107	5.6000e-004	0.0113	2.9400e-003	5.4000e-004	3.4700e-003	0.0000	48.2031	48.2031	4.3400e-003	0.0000	48.3116
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0000e-003</b>	<b>0.1778</b>	<b>0.0407</b>	<b>4.9000e-004</b>	<b>0.0107</b>	<b>5.6000e-004</b>	<b>0.0113</b>	<b>2.9400e-003</b>	<b>5.4000e-004</b>	<b>3.4700e-003</b>	<b>0.0000</b>	<b>48.2031</b>	<b>48.2031</b>	<b>4.3400e-003</b>	<b>0.0000</b>	<b>48.3116</b>

**4.0 Operational Detail - Mobile**



## Hauling 10,000 cubic yards - San Diego County, Annual

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive 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	1.7300e-003	8.1000e-003	0.0231	9.0000e-005	7.6600e-003	7.0000e-005	7.7300e-003	2.0500e-003	7.0000e-005	2.1200e-003	0.0000	7.8595	7.8595	3.9000e-004	0.0000	7.8693
Unmitigated	1.7300e-003	8.1000e-003	0.0231	9.0000e-005	7.6600e-003	7.0000e-005	7.7300e-003	2.0500e-003	7.0000e-005	2.1200e-003	0.0000	7.8595	7.8595	3.9000e-004	0.0000	7.8693

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	6.97	1.32	0.68	20,338	20,338
Total	6.97	1.32	0.68	20,338	20,338

**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
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## Hauling 10,000 cubic yards - San Diego County, Annual

**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	0.0000	2.7158	2.7158	1.1000e-004	2.0000e-005	2.7253
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.7158	2.7158	1.1000e-004	2.0000e-005	2.7253
NaturalGas Mitigated	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6169	0.6169	1.0000e-005	1.0000e-005	0.6206
NaturalGas Unmitigated	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6169	0.6169	1.0000e-005	1.0000e-005	0.6206

## Hauling 10,000 cubic yards - San Diego County, Annual

**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					
General Light Industry	11560	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6169	0.6169	1.0000e-005	1.0000e-005	0.6206
<b>Total</b>		<b>6.0000e-005</b>	<b>5.7000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6169</b>	<b>0.6169</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.6206</b>

**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					
General Light Industry	11560	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6169	0.6169	1.0000e-005	1.0000e-005	0.6206
<b>Total</b>		<b>6.0000e-005</b>	<b>5.7000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6169</b>	<b>0.6169</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.6206</b>

Hauling 10,000 cubic yards - San Diego County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	8310	2.7158	1.1000e-004	2.0000e-005	2.7253
<b>Total</b>		<b>2.7158</b>	<b>1.1000e-004</b>	<b>2.0000e-005</b>	<b>2.7253</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	8310	2.7158	1.1000e-004	2.0000e-005	2.7253
<b>Total</b>		<b>2.7158</b>	<b>1.1000e-004</b>	<b>2.0000e-005</b>	<b>2.7253</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Hauling 10,000 cubic yards - San Diego County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	5.0700e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

## 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	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>5.0700e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

## Hauling 10,000 cubic yards - San Diego County, Annual

**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	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>5.0700e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Hauling 10,000 cubic yards - San Diego County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.0574	7.5700e-003	1.9000e-004	1.3023
Unmitigated	1.0574	7.5700e-003	1.9000e-004	1.3023

## 7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.23125 / 0	1.0574	7.5700e-003	1.9000e-004	1.3023
<b>Total</b>		<b>1.0574</b>	<b>7.5700e-003</b>	<b>1.9000e-004</b>	<b>1.3023</b>

Hauling 10,000 cubic yards - San Diego County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.23125 / 0	1.0574	7.5700e-003	1.9000e-004	1.3023
<b>Total</b>		<b>1.0574</b>	<b>7.5700e-003</b>	<b>1.9000e-004</b>	<b>1.3023</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2517	0.0149	0.0000	0.6236
Unmitigated	0.2517	0.0149	0.0000	0.6236



## Hauling 10,000 cubic yards - San Diego County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1.24	0.2517	0.0149	0.0000	0.6236
<b>Total</b>		<b>0.2517</b>	<b>0.0149</b>	<b>0.0000</b>	<b>0.6236</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1.24	0.2517	0.0149	0.0000	0.6236
<b>Total</b>		<b>0.2517</b>	<b>0.0149</b>	<b>0.0000</b>	<b>0.6236</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Hauling 10,000 cubic yards - San Diego County, Annual

## 10.0 Stationary Equipment

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### 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

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Hauling 10,000 cubic yards - San Diego County, Summer

## Hauling 10,000 cubic yards San Diego County, Summer

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	720.49	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction haul 10,000 cubic yards soil only.

Land Use - haul 10,000 cubic yards soil construction emissions only

Construction Phase - haul 10,000 cubic yards soil construction emissions only

Off-road Equipment - Haul 10,000 cy soil construction only

Trips and VMT - Haul 10,000 cy soil construction only

Grading - Haul 10,000 cy soil construction only

## Hauling 10,000 cubic yards - San Diego County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	106.00
tblGrading	MaterialExported	0.00	10,000.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

## 2.0 Emissions Summary

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## Hauling 10,000 cubic yards - San Diego County, Summer

## 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					
2020	1.1727	14.6219	4.8785	0.0178	0.3329	0.5655	0.8984	0.1209	0.5206	0.6416	0.0000	1,837.1617	1,837.1617	0.3565	0.0000	1,846.0749
Maximum	1.1727	14.6219	4.8785	0.0178	0.3329	0.5655	0.8984	0.1209	0.5206	0.6416	0.0000	1,837.1617	1,837.1617	0.3565	0.0000	1,846.0749

### 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					
2020	1.1727	14.6219	4.8785	0.0178	0.3329	0.5655	0.8984	0.1209	0.5206	0.6416	0.0000	1,837.1617	1,837.1617	0.3565	0.0000	1,846.0749
Maximum	1.1727	14.6219	4.8785	0.0178	0.3329	0.5655	0.8984	0.1209	0.5206	0.6416	0.0000	1,837.1617	1,837.1617	0.3565	0.0000	1,846.0749

[illegible]

## Hauling 10,000 cubic yards - San Diego County, Summer

**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	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
Mobile	0.0132	0.0569	0.1752	6.5000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		65.8237	65.8237	3.1900e-003		65.9034
<b>Total</b>	<b>0.0413</b>	<b>0.0600</b>	<b>0.1780</b>	<b>6.7000e-004</b>	<b>0.0571</b>	<b>7.5000e-004</b>	<b>0.0579</b>	<b>0.0153</b>	<b>7.2000e-004</b>	<b>0.0160</b>		<b>69.5500</b>	<b>69.5500</b>	<b>3.2600e-003</b>	<b>7.0000e-005</b>	<b>69.6518</b>

**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	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
Mobile	0.0132	0.0569	0.1752	6.5000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		65.8237	65.8237	3.1900e-003		65.9034
<b>Total</b>	<b>0.0413</b>	<b>0.0600</b>	<b>0.1780</b>	<b>6.7000e-004</b>	<b>0.0571</b>	<b>7.5000e-004</b>	<b>0.0579</b>	<b>0.0153</b>	<b>7.2000e-004</b>	<b>0.0160</b>		<b>69.5500</b>	<b>69.5500</b>	<b>3.2600e-003</b>	<b>7.0000e-005</b>	<b>69.6518</b>

## Hauling 10,000 cubic yards - San Diego County, Summer

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/14/2020	8/10/2020	5	106	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Rubber Tired Dozers	1	8.00	247	0.40

**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
Grading	4	0.00	0.00	1,250.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Hauling 10,000 cubic yards - San Diego County, Summer

**3.2 Grading - 2020****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					0.1269	0.0000	0.1269	0.0645	0.0000	0.0645			0.0000			0.0000
Off-Road	1.0795	11.3323	4.1316	8.5300e-003		0.5550	0.5550		0.5106	0.5106		827.3425	827.3425	0.2676		834.0320
<b>Total</b>	<b>1.0795</b>	<b>11.3323</b>	<b>4.1316</b>	<b>8.5300e-003</b>	<b>0.1269</b>	<b>0.5550</b>	<b>0.6819</b>	<b>0.0645</b>	<b>0.5106</b>	<b>0.5750</b>		<b>827.3425</b>	<b>827.3425</b>	<b>0.2676</b>		<b>834.0320</b>

**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	0.0932	3.2897	0.7469	9.2300e-003	0.2061	0.0105	0.2166	0.0565	0.0100	0.0665		1,009.819 2	1,009.819 2	0.0890		1,012.042 9
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0932</b>	<b>3.2897</b>	<b>0.7469</b>	<b>9.2300e-003</b>	<b>0.2061</b>	<b>0.0105</b>	<b>0.2166</b>	<b>0.0565</b>	<b>0.0100</b>	<b>0.0665</b>		<b>1,009.819 2</b>	<b>1,009.819 2</b>	<b>0.0890</b>		<b>1,012.042 9</b>



## Hauling 10,000 cubic yards - San Diego County, Summer

**3.2 Grading - 2020****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					0.1269	0.0000	0.1269	0.0645	0.0000	0.0645			0.0000			0.0000
Off-Road	1.0795	11.3323	4.1316	8.5300e-003		0.5550	0.5550		0.5106	0.5106	0.0000	827.3425	827.3425	0.2676		834.0320
<b>Total</b>	<b>1.0795</b>	<b>11.3323</b>	<b>4.1316</b>	<b>8.5300e-003</b>	<b>0.1269</b>	<b>0.5550</b>	<b>0.6819</b>	<b>0.0645</b>	<b>0.5106</b>	<b>0.5750</b>	<b>0.0000</b>	<b>827.3425</b>	<b>827.3425</b>	<b>0.2676</b>		<b>834.0320</b>

**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	0.0932	3.2897	0.7469	9.2300e-003	0.2061	0.0105	0.2166	0.0565	0.0100	0.0665		1,009.819 2	1,009.819 2	0.0890		1,012.042 9
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0932</b>	<b>3.2897</b>	<b>0.7469</b>	<b>9.2300e-003</b>	<b>0.2061</b>	<b>0.0105</b>	<b>0.2166</b>	<b>0.0565</b>	<b>0.0100</b>	<b>0.0665</b>		<b>1,009.819 2</b>	<b>1,009.819 2</b>	<b>0.0890</b>		<b>1,012.042 9</b>

**4.0 Operational Detail - Mobile**

## Hauling 10,000 cubic yards - San Diego County, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive 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	0.0132	0.0569	0.1752	6.5000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		65.8237	65.8237	3.1900e-003		65.9034
Unmitigated	0.0132	0.0569	0.1752	6.5000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		65.8237	65.8237	3.1900e-003		65.9034

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	6.97	1.32	0.68	20,338	20,338
Total	6.97	1.32	0.68	20,338	20,338

**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
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## Hauling 10,000 cubic yards - San Diego County, Summer

**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	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
NaturalGas Unmitigated	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482

## Hauling 10,000 cubic yards - San Diego County, Summer

**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					
General Light Industry	31.6712	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
<b>Total</b>		<b>3.4000e-004</b>	<b>3.1100e-003</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>3.7260</b>	<b>3.7260</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>3.7482</b>

**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					
General Light Industry	0.0316712	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
<b>Total</b>		<b>3.4000e-004</b>	<b>3.1100e-003</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>3.7260</b>	<b>3.7260</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>3.7482</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Hauling 10,000 cubic yards - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

## 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	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>0.0278</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

## Hauling 10,000 cubic yards - San Diego County, Summer

**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	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>0.0278</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

## Hauling 10,000 cubic yards - San Diego County, Summer

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**

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Hauling 10,000 cubic yards - San Diego County, Winter

## Hauling 10,000 cubic yards San Diego County, Winter

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	720.49	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction haul 10,000 cubic yards soil only.

Land Use - haul 10,000 cubic yards soil construction emissions only

Construction Phase - haul 10,000 cubic yards soil construction emissions only

Off-road Equipment - Haul 10,000 cy soil construction only

Trips and VMT - Haul 10,000 cy soil construction only

Grading - Haul 10,000 cy soil construction only



## Hauling 10,000 cubic yards - San Diego County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	106.00
tblGrading	MaterialExported	0.00	10,000.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

## 2.0 Emissions Summary

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Hauling 10,000 cubic yards - San Diego County, Winter

## 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					
2020	1.1753	14.6536	4.9279	0.0176	0.3329	0.5657	0.8986	0.1209	0.5208	0.6418	0.0000	1,819.8371	1,819.8371	0.3596	0.0000	1,828.8265
Maximum	1.1753	14.6536	4.9279	0.0176	0.3329	0.5657	0.8986	0.1209	0.5208	0.6418	0.0000	1,819.8371	1,819.8371	0.3596	0.0000	1,828.8265

### 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					
2020	1.1753	14.6536	4.9279	0.0176	0.3329	0.5657	0.8986	0.1209	0.5208	0.6418	0.0000	1,819.8371	1,819.8371	0.3596	0.0000	1,828.8265
Maximum	1.1753	14.6536	4.9279	0.0176	0.3329	0.5657	0.8986	0.1209	0.5208	0.6418	0.0000	1,819.8371	1,819.8371	0.3596	0.0000	1,828.8265

[illegible]

## Hauling 10,000 cubic yards - San Diego County, Winter

**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	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
Mobile	0.0128	0.0588	0.1690	6.1000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		62.4817	62.4817	3.1800e-003		62.5611
<b>Total</b>	<b>0.0409</b>	<b>0.0619</b>	<b>0.1717</b>	<b>6.3000e-004</b>	<b>0.0571</b>	<b>7.5000e-004</b>	<b>0.0579</b>	<b>0.0153</b>	<b>7.2000e-004</b>	<b>0.0160</b>		<b>66.2079</b>	<b>66.2079</b>	<b>3.2500e-003</b>	<b>7.0000e-005</b>	<b>66.3095</b>

**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	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
Mobile	0.0128	0.0588	0.1690	6.1000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		62.4817	62.4817	3.1800e-003		62.5611
<b>Total</b>	<b>0.0409</b>	<b>0.0619</b>	<b>0.1717</b>	<b>6.3000e-004</b>	<b>0.0571</b>	<b>7.5000e-004</b>	<b>0.0579</b>	<b>0.0153</b>	<b>7.2000e-004</b>	<b>0.0160</b>		<b>66.2079</b>	<b>66.2079</b>	<b>3.2500e-003</b>	<b>7.0000e-005</b>	<b>66.3095</b>

## Hauling 10,000 cubic yards - San Diego County, Winter

	ROG	NOx	CO	SO2	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/14/2020	8/10/2020	5	106	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Rubber Tired Dozers	1	8.00	247	0.40

**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
Grading	4	0.00	0.00	1,250.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Hauling 10,000 cubic yards - San Diego County, Winter

**3.2 Grading - 2020****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					0.1269	0.0000	0.1269	0.0645	0.0000	0.0645			0.0000			0.0000
Off-Road	1.0795	11.3323	4.1316	8.5300e-003		0.5550	0.5550		0.5106	0.5106		827.3425	827.3425	0.2676		834.0320
<b>Total</b>	<b>1.0795</b>	<b>11.3323</b>	<b>4.1316</b>	<b>8.5300e-003</b>	<b>0.1269</b>	<b>0.5550</b>	<b>0.6819</b>	<b>0.0645</b>	<b>0.5106</b>	<b>0.5750</b>		<b>827.3425</b>	<b>827.3425</b>	<b>0.2676</b>		<b>834.0320</b>

**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	0.0958	3.3213	0.7963	9.0700e-003	0.2061	0.0107	0.2168	0.0565	0.0103	0.0667		992.4946	992.4946	0.0920		994.7945
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0958</b>	<b>3.3213</b>	<b>0.7963</b>	<b>9.0700e-003</b>	<b>0.2061</b>	<b>0.0107</b>	<b>0.2168</b>	<b>0.0565</b>	<b>0.0103</b>	<b>0.0667</b>		<b>992.4946</b>	<b>992.4946</b>	<b>0.0920</b>		<b>994.7945</b>

## Hauling 10,000 cubic yards - San Diego County, Winter

**3.2 Grading - 2020****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					0.1269	0.0000	0.1269	0.0645	0.0000	0.0645			0.0000			0.0000
Off-Road	1.0795	11.3323	4.1316	8.5300e-003		0.5550	0.5550		0.5106	0.5106	0.0000	827.3425	827.3425	0.2676		834.0320
<b>Total</b>	<b>1.0795</b>	<b>11.3323</b>	<b>4.1316</b>	<b>8.5300e-003</b>	<b>0.1269</b>	<b>0.5550</b>	<b>0.6819</b>	<b>0.0645</b>	<b>0.5106</b>	<b>0.5750</b>	<b>0.0000</b>	<b>827.3425</b>	<b>827.3425</b>	<b>0.2676</b>		<b>834.0320</b>

**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	0.0958	3.3213	0.7963	9.0700e-003	0.2061	0.0107	0.2168	0.0565	0.0103	0.0667		992.4946	992.4946	0.0920		994.7945
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0958</b>	<b>3.3213</b>	<b>0.7963</b>	<b>9.0700e-003</b>	<b>0.2061</b>	<b>0.0107</b>	<b>0.2168</b>	<b>0.0565</b>	<b>0.0103</b>	<b>0.0667</b>		<b>992.4946</b>	<b>992.4946</b>	<b>0.0920</b>		<b>994.7945</b>

**4.0 Operational Detail - Mobile**

## Hauling 10,000 cubic yards - San Diego County, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive 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	0.0128	0.0588	0.1690	6.1000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		62.4817	62.4817	3.1800e-003		62.5611
Unmitigated	0.0128	0.0588	0.1690	6.1000e-004	0.0571	5.1000e-004	0.0576	0.0153	4.8000e-004	0.0157		62.4817	62.4817	3.1800e-003		62.5611

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	6.97	1.32	0.68	20,338	20,338
Total	6.97	1.32	0.68	20,338	20,338

**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
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## Hauling 10,000 cubic yards - San Diego County, Winter

**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	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
NaturalGas Unmitigated	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482



Hauling 10,000 cubic yards - San Diego County, Winter

**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					
General Light Industry	31.6712	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
<b>Total</b>		<b>3.4000e-004</b>	<b>3.1100e-003</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>3.7260</b>	<b>3.7260</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>3.7482</b>

**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					
General Light Industry	0.0316712	3.4000e-004	3.1100e-003	2.6100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7260	3.7260	7.0000e-005	7.0000e-005	3.7482
<b>Total</b>		<b>3.4000e-004</b>	<b>3.1100e-003</b>	<b>2.6100e-003</b>	<b>2.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>3.7260</b>	<b>3.7260</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>3.7482</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Hauling 10,000 cubic yards - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0278	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

## 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	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>0.0278</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

Hauling 10,000 cubic yards - San Diego County, Winter

**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	6.3500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>0.0278</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****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**

## Hauling 10,000 cubic yards - San Diego County, Winter

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**

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## Sunrise Unmitigated - San Diego County, Annual

## Sunrise Unmitigated

### San Diego County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	80.00	Space	0.72	32,000.00	0
Condo/Townhouse	192.00	Dwelling Unit	6.94	299,750.00	592

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	509.15	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

### 1.3 User Entered Comments & Non-Default Data

## Sunrise Unmitigated - San Diego County, Annual

Project Characteristics - Interpolated for RPS 2022

Land Use - Data from applicant.

Construction Phase - Data from applicant.

Off-road Equipment -

Off-road Equipment - Data from applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data from applicant.

Trips and VMT - Data from applicant.

Grading - Data from applicant.

Architectural Coating - SDAPCD VOC Rule 67.0.1

Vehicle Trips - Based on LLG 2018 project-specific traffic study and adjusted weekend trip rates from CalEEMod default. SANDAG average trip length for all residential.

Woodstoves - Applicant data.

Area Coating - SDAPCD Rule 67.0.1.

Energy Use - Increased to account for increased population 592 persons.

Water And Wastewater - Increased to account for increased population 592 persons.

Solid Waste - scaled to include 299750 SF building size

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - CAPCOA 2010 LUT-5 7.54% =  $((-4.4 \times 0.6 + 15.2) - 1.3) - 0.67$

Energy Mitigation - zero net energy; high efficiency lighting

Water Mitigation -

Waste Mitigation - 75% waste diversion consistent with AB 341 (not mitigation)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00

## Sunrise Unmitigated - San Diego County, Annual

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	106.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	327.00
tblConstructionPhase	NumDays	20.00	135.00
tblEnergyUse	LightingElect	1,001.10	1,078.34
tblEnergyUse	NT24E	3,795.01	4,087.83
tblEnergyUse	NT24NG	4,180.00	4,502.52
tblEnergyUse	T24E	227.22	244.75
tblEnergyUse	T24NG	10,202.85	10,990.09
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	105.60	0.00
tblFireplaces	NumberNoFireplace	19.20	192.00
tblFireplaces	NumberWood	67.20	0.00
tblGrading	AcresOfGrading	53.00	14.40
tblGrading	MaterialExported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	192,000.00	299,750.00
tblLandUse	LotAcreage	12.00	6.94
tblLandUse	Population	549.00	592.00

## Sunrise Unmitigated - San Diego County, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	88.32	95.13
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HS_TL	7.10	7.90
tblVehicleTrips	HW_TL	16.80	7.90
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	5.67	7.81
tblVehicleTrips	SU_TR	4.84	6.66
tblVehicleTrips	WD_TR	5.81	8.00
tblWater	IndoorWaterUseRate	12,509,572.92	13,474,792.43
tblWoodstoves	NumberCatalytic	9.60	0.00
tblWoodstoves	NumberNoncatalytic	9.60	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00



## Sunrise Unmitigated - San Diego County, Annual

**2.0 Emissions Summary****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					
2020	0.3717	3.5779	3.0825	5.5500e-003	0.4680	0.1866	0.6546	0.2310	0.1724	0.4034	0.0000	490.9836	490.9836	0.1266	0.0000	494.1476
2021	1.7923	5.1125	5.9324	0.0110	0.2930	0.2707	0.5637	0.0783	0.2521	0.3304	0.0000	971.1819	971.1819	0.1949	0.0000	976.0553
Maximum	1.7923	5.1125	5.9324	0.0110	0.4680	0.2707	0.6546	0.2310	0.2521	0.4034	0.0000	971.1819	971.1819	0.1949	0.0000	976.0553

**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					
2020	0.3717	3.5779	3.0825	5.5500e-003	0.2319	0.1866	0.4184	0.1033	0.1724	0.2757	0.0000	490.9831	490.9831	0.1266	0.0000	494.1471
2021	1.7923	5.1125	5.9324	0.0110	0.2930	0.2707	0.5637	0.0783	0.2521	0.3304	0.0000	971.1811	971.1811	0.1949	0.0000	976.0545
Maximum	1.7923	5.1125	5.9324	0.0110	0.2930	0.2707	0.5637	0.1033	0.2521	0.3304	0.0000	971.1811	971.1811	0.1949	0.0000	976.0545

## Sunrise Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	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	31.03	0.00	19.38	41.29	0.00	17.40	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	3-1-2020	5-31-2020	0.9717	0.9717
2	6-1-2020	8-31-2020	1.0795	1.0795
3	9-1-2020	11-30-2020	1.3727	1.3727
4	12-1-2020	2-28-2021	1.4288	1.4288
5	3-1-2021	5-31-2021	1.4055	1.4055
6	6-1-2021	8-31-2021	1.8637	1.8637
7	9-1-2021	9-30-2021	0.6668	0.6668
		Highest	1.8637	1.8637

## Sunrise Unmitigated - San Diego County, Annual

**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	1.3343	0.0165	1.4279	8.0000e-005		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	2.3302	2.3302	2.2500e-003	0.0000	2.3864
Energy	0.0160	0.1371	0.0583	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	401.2512	401.2512	0.0126	4.8200e-003	403.0004
Mobile	0.4273	1.9140	5.1750	0.0183	1.6191	0.0153	1.6343	0.4336	0.0143	0.4478	0.0000	1,685.2895	1,685.2895	0.0874	0.0000	1,687.4740
Waste						0.0000	0.0000		0.0000	0.0000	19.3105	0.0000	19.3105	1.1412	0.0000	47.8410
Water						0.0000	0.0000		0.0000	0.0000	4.2749	60.7560	65.0310	0.4415	0.0108	79.2993
<b>Total</b>	<b>1.7776</b>	<b>2.0676</b>	<b>6.6612</b>	<b>0.0192</b>	<b>1.6191</b>	<b>0.0342</b>	<b>1.6533</b>	<b>0.4336</b>	<b>0.0332</b>	<b>0.4668</b>	<b>23.5855</b>	<b>2,149.6268</b>	<b>2,173.2123</b>	<b>1.6849</b>	<b>0.0157</b>	<b>2,220.0011</b>

## Sunrise Unmitigated - San Diego County, Annual

**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	1.3343	0.0165	1.4279	8.0000e-005		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	2.3302	2.3302	2.2500e-003	0.0000	2.3864
Energy	0.0100	0.0855	0.0364	5.5000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003	0.0000	325.7394	325.7394	0.0108	3.6000e-003	327.0813
Mobile	0.3919	1.6992	4.4049	0.0150	1.3083	0.0126	1.3210	0.3503	0.0118	0.3622	0.0000	1,380.656 2	1,380.656 2	0.0739	0.0000	1,382.503 1
Waste						0.0000	0.0000		0.0000	0.0000	4.8276	0.0000	4.8276	0.2853	0.0000	11.9603
Water						0.0000	0.0000		0.0000	0.0000	3.4199	48.6048	52.0248	0.3532	8.6800e-003	63.4394
<b>Total</b>	<b>1.7361</b>	<b>1.8012</b>	<b>5.8692</b>	<b>0.0156</b>	<b>1.3083</b>	<b>0.0275</b>	<b>1.3358</b>	<b>0.3503</b>	<b>0.0266</b>	<b>0.3770</b>	<b>8.2476</b>	<b>1,757.330 5</b>	<b>1,765.578 1</b>	<b>0.7254</b>	<b>0.0123</b>	<b>1,787.370 5</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>2.33</b>	<b>12.88</b>	<b>11.89</b>	<b>18.84</b>	<b>19.19</b>	<b>19.81</b>	<b>19.20</b>	<b>19.19</b>	<b>19.90</b>	<b>19.24</b>	<b>65.03</b>	<b>18.25</b>	<b>18.76</b>	<b>56.95</b>	<b>21.58</b>	<b>19.49</b>

**3.0 Construction Detail****Construction Phase**

## Sunrise Unmitigated - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	3/13/2020	5	10	
2	Grading	Grading	3/14/2020	8/10/2020	5	106	
3	Paving	Paving	7/1/2020	10/31/2020	5	88	
4	Building Construction	Building Construction	10/1/2020	12/31/2021	5	327	
5	Architectural Coating	Architectural Coating	6/27/2021	12/31/2021	5	135	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 14.4**

**Acres of Paving: 0.72**

**Residential Indoor: 606,994; Residential Outdoor: 202,331; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,920 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Sunrise Unmitigated - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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
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
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	12	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
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
Site Preparation	4	4.00	1.00	125.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	5.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	152.00	26.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Sunrise Unmitigated - San Diego County, Annual

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Site Preparation - 2020****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					0.0603	0.0000	0.0603	0.0331	0.0000	0.0331	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0129	0.1344	0.0641	1.2000e-004		6.8800e-003	6.8800e-003		6.3300e-003	6.3300e-003	0.0000	10.2341	10.2341	3.3100e-003	0.0000	10.3168
<b>Total</b>	<b>0.0129</b>	<b>0.1344</b>	<b>0.0641</b>	<b>1.2000e-004</b>	<b>0.0603</b>	<b>6.8800e-003</b>	<b>0.0672</b>	<b>0.0331</b>	<b>6.3300e-003</b>	<b>0.0394</b>	<b>0.0000</b>	<b>10.2341</b>	<b>10.2341</b>	<b>3.3100e-003</b>	<b>0.0000</b>	<b>10.3168</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.2 Site Preparation - 2020****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	5.0000e-004	0.0178	4.0700e-003	5.0000e-005	1.0700e-003	6.0000e-005	1.1300e-003	2.9000e-004	5.0000e-005	3.5000e-004	0.0000	4.8203	4.8203	4.3000e-004	0.0000	4.8312
Vendor	2.0000e-005	5.4000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1218	0.1218	1.0000e-005	0.0000	0.1221
Worker	1.0000e-004	8.0000e-005	7.8000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2232	0.2232	1.0000e-005	0.0000	0.2234
<b>Total</b>	<b>6.2000e-004</b>	<b>0.0184</b>	<b>4.9900e-003</b>	<b>5.0000e-005</b>	<b>1.3500e-003</b>	<b>6.0000e-005</b>	<b>1.4100e-003</b>	<b>3.7000e-004</b>	<b>5.0000e-005</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>5.1654</b>	<b>5.1654</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>5.1766</b>

**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					0.0235	0.0000	0.0235	0.0129	0.0000	0.0129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0129	0.1344	0.0641	1.2000e-004		6.8800e-003	6.8800e-003		6.3300e-003	6.3300e-003	0.0000	10.2340	10.2340	3.3100e-003	0.0000	10.3168
<b>Total</b>	<b>0.0129</b>	<b>0.1344</b>	<b>0.0641</b>	<b>1.2000e-004</b>	<b>0.0235</b>	<b>6.8800e-003</b>	<b>0.0304</b>	<b>0.0129</b>	<b>6.3300e-003</b>	<b>0.0192</b>	<b>0.0000</b>	<b>10.2340</b>	<b>10.2340</b>	<b>3.3100e-003</b>	<b>0.0000</b>	<b>10.3168</b>



## Sunrise Unmitigated - San Diego County, Annual

**3.2 Site Preparation - 2020****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	5.0000e-004	0.0178	4.0700e-003	5.0000e-005	1.0700e-003	6.0000e-005	1.1300e-003	2.9000e-004	5.0000e-005	3.5000e-004	0.0000	4.8203	4.8203	4.3000e-004	0.0000	4.8312
Vendor	2.0000e-005	5.4000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1218	0.1218	1.0000e-005	0.0000	0.1221
Worker	1.0000e-004	8.0000e-005	7.8000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2232	0.2232	1.0000e-005	0.0000	0.2234
<b>Total</b>	<b>6.2000e-004</b>	<b>0.0184</b>	<b>4.9900e-003</b>	<b>5.0000e-005</b>	<b>1.3500e-003</b>	<b>6.0000e-005</b>	<b>1.4100e-003</b>	<b>3.7000e-004</b>	<b>5.0000e-005</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>5.1654</b>	<b>5.1654</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>5.1766</b>

**3.3 Grading - 2020****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					0.3268	0.0000	0.3268	0.1763	0.0000	0.1763	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1287	1.3985	0.8508	1.5700e-003		0.0675	0.0675		0.0621	0.0621	0.0000	138.1114	138.1114	0.0447	0.0000	139.2281
<b>Total</b>	<b>0.1287</b>	<b>1.3985</b>	<b>0.8508</b>	<b>1.5700e-003</b>	<b>0.3268</b>	<b>0.0675</b>	<b>0.3943</b>	<b>0.1763</b>	<b>0.0621</b>	<b>0.2384</b>	<b>0.0000</b>	<b>138.1114</b>	<b>138.1114</b>	<b>0.0447</b>	<b>0.0000</b>	<b>139.2281</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.3 Grading - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	5.7700e-003	1.5300e-003	1.0000e-005	3.2000e-004	3.0000e-005	3.5000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.2911	1.2911	1.0000e-004	0.0000	1.2937
Worker	1.3700e-003	1.0700e-003	0.0103	3.0000e-005	3.3000e-003	2.0000e-005	3.3300e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.9578	2.9578	9.0000e-005	0.0000	2.9600
<b>Total</b>	<b>1.5600e-003</b>	<b>6.8400e-003</b>	<b>0.0118</b>	<b>4.0000e-005</b>	<b>3.6200e-003</b>	<b>5.0000e-005</b>	<b>3.6800e-003</b>	<b>9.7000e-004</b>	<b>5.0000e-005</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>4.2490</b>	<b>4.2490</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>4.2537</b>

**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					0.1275	0.0000	0.1275	0.0687	0.0000	0.0687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1287	1.3985	0.8508	1.5700e-003		0.0675	0.0675		0.0621	0.0621	0.0000	138.1112	138.1112	0.0447	0.0000	139.2279
<b>Total</b>	<b>0.1287</b>	<b>1.3985</b>	<b>0.8508</b>	<b>1.5700e-003</b>	<b>0.1275</b>	<b>0.0675</b>	<b>0.1949</b>	<b>0.0687</b>	<b>0.0621</b>	<b>0.1308</b>	<b>0.0000</b>	<b>138.1112</b>	<b>138.1112</b>	<b>0.0447</b>	<b>0.0000</b>	<b>139.2279</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.3 Grading - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	5.7700e-003	1.5300e-003	1.0000e-005	3.2000e-004	3.0000e-005	3.5000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.2911	1.2911	1.0000e-004	0.0000	1.2937
Worker	1.3700e-003	1.0700e-003	0.0103	3.0000e-005	3.3000e-003	2.0000e-005	3.3300e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.9578	2.9578	9.0000e-005	0.0000	2.9600
<b>Total</b>	<b>1.5600e-003</b>	<b>6.8400e-003</b>	<b>0.0118</b>	<b>4.0000e-005</b>	<b>3.6200e-003</b>	<b>5.0000e-005</b>	<b>3.6800e-003</b>	<b>9.7000e-004</b>	<b>5.0000e-005</b>	<b>1.0200e-003</b>	<b>0.0000</b>	<b>4.2490</b>	<b>4.2490</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>4.2537</b>

**3.4 Paving - 2020****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	0.0597	0.6189	0.6447	1.0000e-003		0.0331	0.0331		0.0305	0.0305	0.0000	88.1242	88.1242	0.0285	0.0000	88.8367
Paving	9.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0606</b>	<b>0.6189</b>	<b>0.6447</b>	<b>1.0000e-003</b>		<b>0.0331</b>	<b>0.0331</b>		<b>0.0305</b>	<b>0.0305</b>	<b>0.0000</b>	<b>88.1242</b>	<b>88.1242</b>	<b>0.0285</b>	<b>0.0000</b>	<b>88.8367</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.4 Paving - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4200e-003	2.6800e-003	0.0256	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	7.3666	7.3666	2.1000e-004	0.0000	7.3720
<b>Total</b>	<b>3.4200e-003</b>	<b>2.6800e-003</b>	<b>0.0256</b>	<b>8.0000e-005</b>	<b>8.2300e-003</b>	<b>6.0000e-005</b>	<b>8.2900e-003</b>	<b>2.1900e-003</b>	<b>5.0000e-005</b>	<b>2.2400e-003</b>	<b>0.0000</b>	<b>7.3666</b>	<b>7.3666</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>7.3720</b>

**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	0.0597	0.6189	0.6447	1.0000e-003		0.0331	0.0331		0.0305	0.0305	0.0000	88.1241	88.1241	0.0285	0.0000	88.8366
Paving	9.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0606</b>	<b>0.6189</b>	<b>0.6447</b>	<b>1.0000e-003</b>		<b>0.0331</b>	<b>0.0331</b>		<b>0.0305</b>	<b>0.0305</b>	<b>0.0000</b>	<b>88.1241</b>	<b>88.1241</b>	<b>0.0285</b>	<b>0.0000</b>	<b>88.8366</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.4 Paving - 2020****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4200e-003	2.6800e-003	0.0256	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	7.3666	7.3666	2.1000e-004	0.0000	7.3720
<b>Total</b>	<b>3.4200e-003</b>	<b>2.6800e-003</b>	<b>0.0256</b>	<b>8.0000e-005</b>	<b>8.2300e-003</b>	<b>6.0000e-005</b>	<b>8.2900e-003</b>	<b>2.1900e-003</b>	<b>5.0000e-005</b>	<b>2.2400e-003</b>	<b>0.0000</b>	<b>7.3666</b>	<b>7.3666</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>7.3720</b>

**3.5 Building Construction - 2020****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	0.1348	1.2844	1.2613	1.8500e-003		0.0781	0.0781		0.0726	0.0726	0.0000	160.8451	160.8451	0.0460	0.0000	161.9938
<b>Total</b>	<b>0.1348</b>	<b>1.2844</b>	<b>1.2613</b>	<b>1.8500e-003</b>		<b>0.0781</b>	<b>0.0781</b>		<b>0.0726</b>	<b>0.0726</b>	<b>0.0000</b>	<b>160.8451</b>	<b>160.8451</b>	<b>0.0460</b>	<b>0.0000</b>	<b>161.9938</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0800e-003	0.0935	0.0248	2.1000e-004	5.1500e-003	4.3000e-004	5.5900e-003	1.4900e-003	4.2000e-004	1.9000e-003	0.0000	20.9018	20.9018	1.6500e-003	0.0000	20.9431
Worker	0.0260	0.0204	0.1945	6.2000e-004	0.0625	4.3000e-004	0.0630	0.0166	4.0000e-004	0.0170	0.0000	55.9863	55.9863	1.6300e-003	0.0000	56.0269
<b>Total</b>	<b>0.0291</b>	<b>0.1138</b>	<b>0.2193</b>	<b>8.3000e-004</b>	<b>0.0677</b>	<b>8.6000e-004</b>	<b>0.0686</b>	<b>0.0181</b>	<b>8.2000e-004</b>	<b>0.0189</b>	<b>0.0000</b>	<b>76.8880</b>	<b>76.8880</b>	<b>3.2800e-003</b>	<b>0.0000</b>	<b>76.9700</b>

**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	0.1348	1.2844	1.2613	1.8500e-003		0.0781	0.0781		0.0726	0.0726	0.0000	160.8449	160.8449	0.0460	0.0000	161.9936
<b>Total</b>	<b>0.1348</b>	<b>1.2844</b>	<b>1.2613</b>	<b>1.8500e-003</b>		<b>0.0781</b>	<b>0.0781</b>		<b>0.0726</b>	<b>0.0726</b>	<b>0.0000</b>	<b>160.8449</b>	<b>160.8449</b>	<b>0.0460</b>	<b>0.0000</b>	<b>161.9936</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2020****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0800e-003	0.0935	0.0248	2.1000e-004	5.1500e-003	4.3000e-004	5.5900e-003	1.4900e-003	4.2000e-004	1.9000e-003	0.0000	20.9018	20.9018	1.6500e-003	0.0000	20.9431
Worker	0.0260	0.0204	0.1945	6.2000e-004	0.0625	4.3000e-004	0.0630	0.0166	4.0000e-004	0.0170	0.0000	55.9863	55.9863	1.6300e-003	0.0000	56.0269
<b>Total</b>	<b>0.0291</b>	<b>0.1138</b>	<b>0.2193</b>	<b>8.3000e-004</b>	<b>0.0677</b>	<b>8.6000e-004</b>	<b>0.0686</b>	<b>0.0181</b>	<b>8.2000e-004</b>	<b>0.0189</b>	<b>0.0000</b>	<b>76.8880</b>	<b>76.8880</b>	<b>3.2800e-003</b>	<b>0.0000</b>	<b>76.9700</b>

**3.5 Building Construction - 2021****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	0.4772	4.5943	4.9283	7.3100e-003		0.2619	0.2619		0.2434	0.2434	0.0000	636.2508	636.2508	0.1809	0.0000	640.7743
<b>Total</b>	<b>0.4772</b>	<b>4.5943</b>	<b>4.9283</b>	<b>7.3100e-003</b>		<b>0.2619</b>	<b>0.2619</b>		<b>0.2434</b>	<b>0.2434</b>	<b>0.0000</b>	<b>636.2508</b>	<b>636.2508</b>	<b>0.1809</b>	<b>0.0000</b>	<b>640.7743</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2021****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9300e-003	0.3345	0.0888	8.4000e-004	0.0204	6.8000e-004	0.0211	5.8800e-003	6.5000e-004	6.5300e-003	0.0000	81.8977	81.8977	6.2700e-003	0.0000	82.0544
Worker	0.0971	0.0732	0.7192	2.3700e-003	0.2473	1.6800e-003	0.2490	0.0657	1.5500e-003	0.0673	0.0000	213.9567	213.9567	5.9400e-003	0.0000	214.1053
<b>Total</b>	<b>0.1071</b>	<b>0.4077</b>	<b>0.8080</b>	<b>3.2100e-003</b>	<b>0.2677</b>	<b>2.3600e-003</b>	<b>0.2701</b>	<b>0.0716</b>	<b>2.2000e-003</b>	<b>0.0738</b>	<b>0.0000</b>	<b>295.8544</b>	<b>295.8544</b>	<b>0.0122</b>	<b>0.0000</b>	<b>296.1596</b>

**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	0.4772	4.5943	4.9283	7.3100e-003		0.2619	0.2619		0.2434	0.2434	0.0000	636.2500	636.2500	0.1809	0.0000	640.7735
<b>Total</b>	<b>0.4772</b>	<b>4.5943</b>	<b>4.9283</b>	<b>7.3100e-003</b>		<b>0.2619</b>	<b>0.2619</b>		<b>0.2434</b>	<b>0.2434</b>	<b>0.0000</b>	<b>636.2500</b>	<b>636.2500</b>	<b>0.1809</b>	<b>0.0000</b>	<b>640.7735</b>



## Sunrise Unmitigated - San Diego County, Annual

**3.5 Building Construction - 2021****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9300e-003	0.3345	0.0888	8.4000e-004	0.0204	6.8000e-004	0.0211	5.8800e-003	6.5000e-004	6.5300e-003	0.0000	81.8977	81.8977	6.2700e-003	0.0000	82.0544
Worker	0.0971	0.0732	0.7192	2.3700e-003	0.2473	1.6800e-003	0.2490	0.0657	1.5500e-003	0.0673	0.0000	213.9567	213.9567	5.9400e-003	0.0000	214.1053
<b>Total</b>	<b>0.1071</b>	<b>0.4077</b>	<b>0.8080</b>	<b>3.2100e-003</b>	<b>0.2677</b>	<b>2.3600e-003</b>	<b>0.2701</b>	<b>0.0716</b>	<b>2.2000e-003</b>	<b>0.0738</b>	<b>0.0000</b>	<b>295.8544</b>	<b>295.8544</b>	<b>0.0122</b>	<b>0.0000</b>	<b>296.1596</b>

**3.6 Architectural Coating - 2021****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	1.1834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1031	0.1227	2.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	17.2345	17.2345	1.1800e-003	0.0000	17.2640
<b>Total</b>	<b>1.1982</b>	<b>0.1031</b>	<b>0.1227</b>	<b>2.0000e-004</b>		<b>6.3500e-003</b>	<b>6.3500e-003</b>		<b>6.3500e-003</b>	<b>6.3500e-003</b>	<b>0.0000</b>	<b>17.2345</b>	<b>17.2345</b>	<b>1.1800e-003</b>	<b>0.0000</b>	<b>17.2640</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.6 Architectural Coating - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9100e-003	7.4700e-003	0.0734	2.4000e-004	0.0253	1.7000e-004	0.0254	6.7100e-003	1.6000e-004	6.8700e-003	0.0000	21.8422	21.8422	6.1000e-004	0.0000	21.8574
<b>Total</b>	<b>9.9100e-003</b>	<b>7.4700e-003</b>	<b>0.0734</b>	<b>2.4000e-004</b>	<b>0.0253</b>	<b>1.7000e-004</b>	<b>0.0254</b>	<b>6.7100e-003</b>	<b>1.6000e-004</b>	<b>6.8700e-003</b>	<b>0.0000</b>	<b>21.8422</b>	<b>21.8422</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>21.8574</b>

**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	1.1834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1031	0.1227	2.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	17.2344	17.2344	1.1800e-003	0.0000	17.2640
<b>Total</b>	<b>1.1982</b>	<b>0.1031</b>	<b>0.1227</b>	<b>2.0000e-004</b>		<b>6.3500e-003</b>	<b>6.3500e-003</b>		<b>6.3500e-003</b>	<b>6.3500e-003</b>	<b>0.0000</b>	<b>17.2344</b>	<b>17.2344</b>	<b>1.1800e-003</b>	<b>0.0000</b>	<b>17.2640</b>

## Sunrise Unmitigated - San Diego County, Annual

**3.6 Architectural Coating - 2021****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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9100e-003	7.4700e-003	0.0734	2.4000e-004	0.0253	1.7000e-004	0.0254	6.7100e-003	1.6000e-004	6.8700e-003	0.0000	21.8422	21.8422	6.1000e-004	0.0000	21.8574
<b>Total</b>	<b>9.9100e-003</b>	<b>7.4700e-003</b>	<b>0.0734</b>	<b>2.4000e-004</b>	<b>0.0253</b>	<b>1.7000e-004</b>	<b>0.0254</b>	<b>6.7100e-003</b>	<b>1.6000e-004</b>	<b>6.8700e-003</b>	<b>0.0000</b>	<b>21.8422</b>	<b>21.8422</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>21.8574</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Improve Destination Accessibility

Increase Transit Frequency

## Sunrise Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.3919	1.6992	4.4049	0.0150	1.3083	0.0126	1.3210	0.3503	0.0118	0.3622	0.0000	1,380.656 2	1,380.656 2	0.0739	0.0000	1,382.503 1
Unmitigated	0.4273	1.9140	5.1750	0.0183	1.6191	0.0153	1.6343	0.4336	0.0143	0.4478	0.0000	1,685.289 5	1,685.289 5	0.0874	0.0000	1,687.474 0

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,536.00	1,499.52	1278.72	4,296,245	3,471,675
Parking Lot	0.00	0.00	0.00		
Total	1,536.00	1,499.52	1,278.72	4,296,245	3,471,675

## 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
Condo/Townhouse	7.90	7.90	7.90	41.60	18.80	39.60	100	0	0
Parking Lot	14.70	6.60	6.60	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
Condo/Townhouse	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## Sunrise Unmitigated - San Diego County, Annual

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.0000	226.6839	226.6839	8.9000e-003	1.7800e-003	227.4372
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	242.5162	242.5162	9.5300e-003	1.9100e-003	243.3221
NaturalGas Mitigated	0.0100	0.0855	0.0364	5.5000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003	0.0000	99.0555	99.0555	1.9000e-003	1.8200e-003	99.6441
NaturalGas Unmitigated	0.0160	0.1371	0.0583	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.7350	158.7350	3.0400e-003	2.9100e-003	159.6783

## Sunrise Unmitigated - San Diego County, Annual

**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					
Condo/Townhouse	2.97458e+006	0.0160	0.1371	0.0583	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.7350	158.7350	3.0400e-003	2.9100e-003	159.6783
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0160</b>	<b>0.1371</b>	<b>0.0583</b>	<b>8.7000e-004</b>		<b>0.0111</b>	<b>0.0111</b>		<b>0.0111</b>	<b>0.0111</b>	<b>0.0000</b>	<b>158.7350</b>	<b>158.7350</b>	<b>3.0400e-003</b>	<b>2.9100e-003</b>	<b>159.6783</b>

**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					
Condo/Townhouse	1.85623e+006	0.0100	0.0855	0.0364	5.5000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003	0.0000	99.0555	99.0555	1.9000e-003	1.8200e-003	99.6441
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0100</b>	<b>0.0855</b>	<b>0.0364</b>	<b>5.5000e-004</b>		<b>6.9200e-003</b>	<b>6.9200e-003</b>		<b>6.9200e-003</b>	<b>6.9200e-003</b>	<b>0.0000</b>	<b>99.0555</b>	<b>99.0555</b>	<b>1.9000e-003</b>	<b>1.8200e-003</b>	<b>99.6441</b>

## Sunrise Unmitigated - San Diego County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.0389e+006	239.9296	9.4200e-003	1.8800e-003	240.7269
Parking Lot	11200	2.5866	1.0000e-004	2.0000e-005	2.5952
<b>Total</b>		<b>242.5162</b>	<b>9.5200e-003</b>	<b>1.9000e-003</b>	<b>243.3221</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	972583	224.6146	8.8200e-003	1.7600e-003	225.3610
Parking Lot	8960	2.0693	8.0000e-005	2.0000e-005	2.0762
<b>Total</b>		<b>226.6839</b>	<b>8.9000e-003</b>	<b>1.7800e-003</b>	<b>227.4372</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Sunrise Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	1.3343	0.0165	1.4279	8.0000e-005		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	2.3302	2.3302	2.2500e-003	0.0000	2.3864
Unmitigated	1.3343	0.0165	1.4279	8.0000e-005		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	2.3302	2.3302	2.2500e-003	0.0000	2.3864

## 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	0.1183					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0432	0.0165	1.4279	8.0000e-005		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	2.3302	2.3302	2.2500e-003	0.0000	2.3864
<b>Total</b>	<b>1.3343</b>	<b>0.0165</b>	<b>1.4279</b>	<b>8.0000e-005</b>		<b>7.8900e-003</b>	<b>7.8900e-003</b>		<b>7.8900e-003</b>	<b>7.8900e-003</b>	<b>0.0000</b>	<b>2.3302</b>	<b>2.3302</b>	<b>2.2500e-003</b>	<b>0.0000</b>	<b>2.3864</b>



## Sunrise Unmitigated - San Diego County, Annual

**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	0.1183					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0432	0.0165	1.4279	8.0000e-005		7.8900e-003	7.8900e-003		7.8900e-003	7.8900e-003	0.0000	2.3302	2.3302	2.2500e-003	0.0000	2.3864
<b>Total</b>	<b>1.3343</b>	<b>0.0165</b>	<b>1.4279</b>	<b>8.0000e-005</b>		<b>7.8900e-003</b>	<b>7.8900e-003</b>		<b>7.8900e-003</b>	<b>7.8900e-003</b>	<b>0.0000</b>	<b>2.3302</b>	<b>2.3302</b>	<b>2.2500e-003</b>	<b>0.0000</b>	<b>2.3864</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

## Sunrise Unmitigated - San Diego County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	52.0248	0.3532	8.6800e-003	63.4394
Unmitigated	65.0310	0.4415	0.0108	79.2993

## 7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	13.4748 / 7.88647	65.0310	0.4415	0.0108	79.2993
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>65.0310</b>	<b>0.4415</b>	<b>0.0108</b>	<b>79.2993</b>

## Sunrise Unmitigated - San Diego County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	10.7798 / 6.30918	52.0248	0.3532	8.6800e-003	63.4394
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>52.0248</b>	<b>0.3532</b>	<b>8.6800e-003</b>	<b>63.4394</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

## Sunrise Unmitigated - San Diego County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.8276	0.2853	0.0000	11.9603
Unmitigated	19.3105	1.1412	0.0000	47.8410

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	95.13	19.3105	1.1412	0.0000	47.8410
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>19.3105</b>	<b>1.1412</b>	<b>0.0000</b>	<b>47.8410</b>

## Sunrise Unmitigated - San Diego County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	23.7825	4.8276	0.2853	0.0000	11.9603
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.8276</b>	<b>0.2853</b>	<b>0.0000</b>	<b>11.9603</b>

**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**

Sunrise Unmitigated - San Diego County, Annual

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## Sunrise Unmitigated - San Diego County, Summer

## Sunrise Unmitigated

### San Diego County, Summer

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	80.00	Space	0.72	32,000.00	0
Condo/Townhouse	192.00	Dwelling Unit	6.94	299,750.00	592

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	509.15	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

### 1.3 User Entered Comments & Non-Default Data

## Sunrise Unmitigated - San Diego County, Summer

Project Characteristics - Interpolated for RPS 2022

Land Use - Data from applicant.

Construction Phase - Data from applicant.

Off-road Equipment -

Off-road Equipment - Data from applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data from applicant.

Trips and VMT - Data from applicant.

Grading - Data from applicant.

Architectural Coating - SDAPCD VOC Rule 67.0.1

Vehicle Trips - Based on LLG 2018 project-specific traffic study and adjusted weekend trip rates from CalEEMod default. SANDAG average trip length for all residential.

Woodstoves - Applicant data.

Area Coating - SDAPCD Rule 67.0.1.

Energy Use - Increased to account for increased population 592 persons.

Water And Wastewater - Increased to account for increased population 592 persons.

Solid Waste - scaled to include 299750 SF building size

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - CAPCOA 2010 LUT-5 7.54% =  $((-4.4 \times 0.6 + 15.2) - 1.3) - 0.67$

Energy Mitigation - zero net energy; high efficiency lighting

Water Mitigation -

Waste Mitigation - 75% waste diversion consistent with AB 341 (not mitigation)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00



## Sunrise Unmitigated - San Diego County, Summer

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	106.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	327.00
tblConstructionPhase	NumDays	20.00	135.00
tblEnergyUse	LightingElect	1,001.10	1,078.34
tblEnergyUse	NT24E	3,795.01	4,087.83
tblEnergyUse	NT24NG	4,180.00	4,502.52
tblEnergyUse	T24E	227.22	244.75
tblEnergyUse	T24NG	10,202.85	10,990.09
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	105.60	0.00
tblFireplaces	NumberNoFireplace	19.20	192.00
tblFireplaces	NumberWood	67.20	0.00
tblGrading	AcresOfGrading	53.00	14.40
tblGrading	MaterialExported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	192,000.00	299,750.00
tblLandUse	LotAcreage	12.00	6.94
tblLandUse	Population	549.00	592.00

## Sunrise Unmitigated - San Diego County, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	88.32	95.13
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HS_TL	7.10	7.90
tblVehicleTrips	HW_TL	16.80	7.90
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	5.67	7.81
tblVehicleTrips	SU_TR	4.84	6.66
tblVehicleTrips	WD_TR	5.81	8.00
tblWater	IndoorWaterUseRate	12,509,572.92	13,474,792.43
tblWoodstoves	NumberCatalytic	9.60	0.00
tblWoodstoves	NumberNoncatalytic	9.60	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

## Sunrise Unmitigated - San Diego County, Summer

**2.0 Emissions Summary****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					
2020	6.4027	56.4061	60.5476	0.1072	12.3339	3.1453	13.7220	6.6978	2.9168	7.9753	0.0000	10,454.82 14	10,454.82 14	2.3656	0.0000	10,513.96 01
2021	22.3554	39.8834	47.3368	0.0884	2.4839	2.1211	4.6050	0.6623	1.9785	2.6408	0.0000	8,638.916 6	8,638.916 6	1.6626	0.0000	8,680.483 1
Maximum	22.3554	56.4061	60.5476	0.1072	12.3339	3.1453	13.7220	6.6978	2.9168	7.9753	0.0000	10,454.82 14	10,454.82 14	2.3656	0.0000	10,513.96 01

**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					
2020	6.4027	56.4061	60.5476	0.1072	4.9783	3.1453	6.3665	2.6580	2.9168	3.9355	0.0000	10,454.82 14	10,454.82 14	2.3656	0.0000	10,513.96 01
2021	22.3554	39.8834	47.3368	0.0884	2.4839	2.1211	4.6050	0.6623	1.9785	2.6408	0.0000	8,638.916 6	8,638.916 6	1.6626	0.0000	8,680.483 1
Maximum	22.3554	56.4061	60.5476	0.1072	4.9783	3.1453	6.3665	2.6580	2.9168	3.9355	0.0000	10,454.82 14	10,454.82 14	2.3656	0.0000	10,513.96 01

## Sunrise Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	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	49.64	0.00	40.13	54.89	0.00	38.05	0.00	0.00	0.00	0.00	0.00	0.00

## Sunrise Unmitigated - San Diego County, Summer

**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	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286
Energy	0.0879	0.7510	0.3196	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.7691	958.7691	0.0184	0.0176	964.4666
Mobile	2.5486	10.4868	30.1579	0.1078	9.3655	0.0861	9.4516	2.5030	0.0804	2.5834		10,958.9782	10,958.9782	0.5480		10,972.6774
<b>Total</b>	<b>10.1906</b>	<b>11.4208</b>	<b>46.3430</b>	<b>0.1134</b>	<b>9.3655</b>	<b>0.2344</b>	<b>9.5999</b>	<b>2.5030</b>	<b>0.2287</b>	<b>2.7317</b>	<b>0.0000</b>	<b>11,946.2868</b>	<b>11,946.2868</b>	<b>0.5939</b>	<b>0.0176</b>	<b>11,966.3726</b>

**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	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286
Energy	0.0548	0.4687	0.1994	2.9900e-003		0.0379	0.0379		0.0379	0.0379		598.3012	598.3012	0.0115	0.0110	601.8566
Mobile	2.3445	9.3399	25.4318	0.0883	7.5680	0.0713	7.6393	2.0226	0.0665	2.0891		8,977.4292	8,977.4292	0.4616		8,988.9693
<b>Total</b>	<b>9.9535</b>	<b>9.9915</b>	<b>41.4967</b>	<b>0.0921</b>	<b>7.5680</b>	<b>0.1968</b>	<b>7.7648</b>	<b>2.0226</b>	<b>0.1921</b>	<b>2.2147</b>	<b>0.0000</b>	<b>9,604.2700</b>	<b>9,604.2700</b>	<b>0.5006</b>	<b>0.0110</b>	<b>9,620.0545</b>

## Sunrise Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	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	2.33	12.51	10.46	18.80	19.19	16.05	19.12	19.19	16.03	18.93	0.00	19.60	19.60	15.71	37.60	19.61

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	3/13/2020	5	10	
2	Grading	Grading	3/14/2020	8/10/2020	5	106	
3	Paving	Paving	7/1/2020	10/31/2020	5	88	
4	Building Construction	Building Construction	10/1/2020	12/31/2021	5	327	
5	Architectural Coating	Architectural Coating	6/27/2021	12/31/2021	5	135	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.4

Acres of Paving: 0.72

Residential Indoor: 606,994; Residential Outdoor: 202,331; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,920 (Architectural Coating – sqft)

#### OffRoad Equipment

## Sunrise Unmitigated - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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
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
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	12	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
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
Site Preparation	4	4.00	1.00	125.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	5.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	152.00	26.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Sunrise Unmitigated - San Diego County, Summer

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Site Preparation - 2020****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					12.0582	0.0000	12.0582	6.6226	0.0000	6.6226			0.0000			0.0000
Off-Road	2.5780	26.8748	12.8226	0.0233		1.3762	1.3762		1.2661	1.2661		2,256.2220	2,256.2220	0.7297		2,274.4647
<b>Total</b>	<b>2.5780</b>	<b>26.8748</b>	<b>12.8226</b>	<b>0.0233</b>	<b>12.0582</b>	<b>1.3762</b>	<b>13.4344</b>	<b>6.6226</b>	<b>1.2661</b>	<b>7.8887</b>		<b>2,256.2220</b>	<b>2,256.2220</b>	<b>0.7297</b>		<b>2,274.4647</b>



## Sunrise Unmitigated - San Diego County, Summer

**3.2 Site Preparation - 2020****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	0.0988	3.4871	0.7917	9.7900e-003	0.2184	0.0111	0.2296	0.0599	0.0106	0.0705		1,070.4083	1,070.4083	0.0943		1,072.7655
Vendor	3.5200e-003	0.1079	0.0273	2.5000e-004	6.1200e-003	5.0000e-004	6.6300e-003	1.7600e-003	4.8000e-004	2.2400e-003		27.1717	27.1717	2.0600e-003		27.2233
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.1227</b>	<b>3.6097</b>	<b>0.9859</b>	<b>0.0106</b>	<b>0.2756</b>	<b>0.0120</b>	<b>0.2876</b>	<b>0.0752</b>	<b>0.0114</b>	<b>0.0866</b>		<b>1,149.5047</b>	<b>1,149.5047</b>	<b>0.0979</b>		<b>1,151.9513</b>

**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					4.7027	0.0000	4.7027	2.5828	0.0000	2.5828			0.0000			0.0000
Off-Road	2.5780	26.8748	12.8226	0.0233		1.3762	1.3762		1.2661	1.2661	0.0000	2,256.2220	2,256.2220	0.7297		2,274.4647
<b>Total</b>	<b>2.5780</b>	<b>26.8748</b>	<b>12.8226</b>	<b>0.0233</b>	<b>4.7027</b>	<b>1.3762</b>	<b>6.0789</b>	<b>2.5828</b>	<b>1.2661</b>	<b>3.8489</b>	<b>0.0000</b>	<b>2,256.2220</b>	<b>2,256.2220</b>	<b>0.7297</b>		<b>2,274.4647</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.2 Site Preparation - 2020****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	0.0988	3.4871	0.7917	9.7900e-003	0.2184	0.0111	0.2296	0.0599	0.0106	0.0705		1,070.408 3	1,070.408 3	0.0943		1,072.765 5
Vendor	3.5200e-003	0.1079	0.0273	2.5000e-004	6.1200e-003	5.0000e-004	6.6300e-003	1.7600e-003	4.8000e-004	2.2400e-003		27.1717	27.1717	2.0600e-003		27.2233
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.1227</b>	<b>3.6097</b>	<b>0.9859</b>	<b>0.0106</b>	<b>0.2756</b>	<b>0.0120</b>	<b>0.2876</b>	<b>0.0752</b>	<b>0.0114</b>	<b>0.0866</b>		<b>1,149.504 7</b>	<b>1,149.504 7</b>	<b>0.0979</b>		<b>1,151.951 3</b>

**3.3 Grading - 2020****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					6.1662	0.0000	6.1662	3.3258	0.0000	3.3258			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.1662</b>	<b>1.2734</b>	<b>7.4396</b>	<b>3.3258</b>	<b>1.1716</b>	<b>4.4973</b>		<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.3 Grading - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	3.5200e-003	0.1079	0.0273	2.5000e-004	6.1200e-003	5.0000e-004	6.6300e-003	1.7600e-003	4.8000e-004	2.2400e-003		27.1717	27.1717	2.0600e-003		27.2233
Worker	0.0254	0.0184	0.2085	6.5000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		64.9059	64.9059	1.8900e-003		64.9531
<b>Total</b>	<b>0.0290</b>	<b>0.1263</b>	<b>0.2358</b>	<b>9.0000e-004</b>	<b>0.0700</b>	<b>9.3000e-004</b>	<b>0.0709</b>	<b>0.0187</b>	<b>8.8000e-004</b>	<b>0.0196</b>		<b>92.0776</b>	<b>92.0776</b>	<b>3.9500e-003</b>		<b>92.1764</b>

**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					2.4048	0.0000	2.4048	1.2971	0.0000	1.2971			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>2.4048</b>	<b>1.2734</b>	<b>3.6782</b>	<b>1.2971</b>	<b>1.1716</b>	<b>2.4686</b>	<b>0.0000</b>	<b>2,872.4851</b>	<b>2,872.4851</b>	<b>0.9290</b>		<b>2,895.7106</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.3 Grading - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	3.5200e-003	0.1079	0.0273	2.5000e-004	6.1200e-003	5.0000e-004	6.6300e-003	1.7600e-003	4.8000e-004	2.2400e-003		27.1717	27.1717	2.0600e-003		27.2233
Worker	0.0254	0.0184	0.2085	6.5000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		64.9059	64.9059	1.8900e-003		64.9531
<b>Total</b>	<b>0.0290</b>	<b>0.1263</b>	<b>0.2358</b>	<b>9.0000e-004</b>	<b>0.0700</b>	<b>9.3000e-004</b>	<b>0.0709</b>	<b>0.0187</b>	<b>8.8000e-004</b>	<b>0.0196</b>		<b>92.0776</b>	<b>92.0776</b>	<b>3.9500e-003</b>		<b>92.1764</b>

**3.4 Paving - 2020****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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3780</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.4 Paving - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		194.7176	194.7176	5.6600e-003		194.8592
<b>Total</b>	<b>0.0763</b>	<b>0.0551</b>	<b>0.6256</b>	<b>1.9500e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>194.7176</b>	<b>194.7176</b>	<b>5.6600e-003</b>		<b>194.8592</b>

**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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3780</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.4 Paving - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0551	0.6256	1.9500e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		194.7176	194.7176	5.6600e-003		194.8592
<b>Total</b>	<b>0.0763</b>	<b>0.0551</b>	<b>0.6256</b>	<b>1.9500e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>194.7176</b>	<b>194.7176</b>	<b>5.6600e-003</b>		<b>194.8592</b>

**3.5 Building Construction - 2020****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	4.0839	38.9218	38.2207	0.0560		2.3651	2.3651		2.1985	2.1985		5,372.7678	5,372.7678	1.5348		5,411.1380
<b>Total</b>	<b>4.0839</b>	<b>38.9218</b>	<b>38.2207</b>	<b>0.0560</b>		<b>2.3651</b>	<b>2.3651</b>		<b>2.1985</b>	<b>2.1985</b>		<b>5,372.7678</b>	<b>5,372.7678</b>	<b>1.5348</b>		<b>5,411.1380</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.5 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0914	2.8052	0.7104	6.5800e-003	0.1592	0.0131	0.1723	0.0458	0.0125	0.0583		706.4646	706.4646	0.0537		707.8060
Worker	0.7731	0.5584	6.3389	0.0198	1.9415	0.0131	1.9546	0.5149	0.0121	0.5269		1,973.1379	1,973.1379	0.0574		1,974.5729
<b>Total</b>	<b>0.8645</b>	<b>3.3636</b>	<b>7.0493</b>	<b>0.0264</b>	<b>2.1007</b>	<b>0.0262</b>	<b>2.1269</b>	<b>0.5607</b>	<b>0.0246</b>	<b>0.5853</b>		<b>2,679.6026</b>	<b>2,679.6026</b>	<b>0.1111</b>		<b>2,682.3789</b>

**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	4.0839	38.9218	38.2207	0.0560		2.3651	2.3651		2.1985	2.1985	0.0000	5,372.7678	5,372.7678	1.5348		5,411.1380
<b>Total</b>	<b>4.0839</b>	<b>38.9218</b>	<b>38.2207</b>	<b>0.0560</b>		<b>2.3651</b>	<b>2.3651</b>		<b>2.1985</b>	<b>2.1985</b>	<b>0.0000</b>	<b>5,372.7678</b>	<b>5,372.7678</b>	<b>1.5348</b>		<b>5,411.1380</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.5 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0914	2.8052	0.7104	6.5800e-003	0.1592	0.0131	0.1723	0.0458	0.0125	0.0583		706.4646	706.4646	0.0537		707.8060
Worker	0.7731	0.5584	6.3389	0.0198	1.9415	0.0131	1.9546	0.5149	0.0121	0.5269		1,973.1379	1,973.1379	0.0574		1,974.5729
<b>Total</b>	<b>0.8645</b>	<b>3.3636</b>	<b>7.0493</b>	<b>0.0264</b>	<b>2.1007</b>	<b>0.0262</b>	<b>2.1269</b>	<b>0.5607</b>	<b>0.0246</b>	<b>0.5853</b>		<b>2,679.6026</b>	<b>2,679.6026</b>	<b>0.1111</b>		<b>2,682.3789</b>

**3.5 Building Construction - 2021****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	3.6566	35.2053	37.7649	0.0561		2.0065	2.0065		1.8653	1.8653		5,374.3021	5,374.3021	1.5284		5,412.5112
<b>Total</b>	<b>3.6566</b>	<b>35.2053</b>	<b>37.7649</b>	<b>0.0561</b>		<b>2.0065</b>	<b>2.0065</b>		<b>1.8653</b>	<b>1.8653</b>		<b>5,374.3021</b>	<b>5,374.3021</b>	<b>1.5284</b>		<b>5,412.5112</b>



## Sunrise Unmitigated - San Diego County, Summer

**3.5 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0743	2.5429	0.6424	6.5100e-003	0.1592	5.0900e-003	0.1643	0.0458	4.8700e-003	0.0507		700.0014	700.0014	0.0514		701.2875
Worker	0.7299	0.5081	5.9396	0.0191	1.9415	0.0129	1.9544	0.5149	0.0119	0.5268		1,906.8192	1,906.8192	0.0531		1,908.1458
<b>Total</b>	<b>0.8043</b>	<b>3.0510</b>	<b>6.5820</b>	<b>0.0256</b>	<b>2.1007</b>	<b>0.0180</b>	<b>2.1187</b>	<b>0.5607</b>	<b>0.0168</b>	<b>0.5775</b>		<b>2,606.8205</b>	<b>2,606.8205</b>	<b>0.1045</b>		<b>2,609.4333</b>

**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	3.6566	35.2053	37.7649	0.0561		2.0065	2.0065		1.8653	1.8653	0.0000	5,374.3021	5,374.3021	1.5284		5,412.5112
<b>Total</b>	<b>3.6566</b>	<b>35.2053</b>	<b>37.7649</b>	<b>0.0561</b>		<b>2.0065</b>	<b>2.0065</b>		<b>1.8653</b>	<b>1.8653</b>	<b>0.0000</b>	<b>5,374.3021</b>	<b>5,374.3021</b>	<b>1.5284</b>		<b>5,412.5112</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.5 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0743	2.5429	0.6424	6.5100e-003	0.1592	5.0900e-003	0.1643	0.0458	4.8700e-003	0.0507		700.0014	700.0014	0.0514		701.2875
Worker	0.7299	0.5081	5.9396	0.0191	1.9415	0.0129	1.9544	0.5149	0.0119	0.5268		1,906.8192	1,906.8192	0.0531		1,908.1458
<b>Total</b>	<b>0.8043</b>	<b>3.0510</b>	<b>6.5820</b>	<b>0.0256</b>	<b>2.1007</b>	<b>0.0180</b>	<b>2.1187</b>	<b>0.5607</b>	<b>0.0168</b>	<b>0.5775</b>		<b>2,606.8205</b>	<b>2,606.8205</b>	<b>0.1045</b>		<b>2,609.4333</b>

**3.6 Architectural Coating - 2021****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	17.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>17.7505</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1441	0.1003	1.1723	3.7800e-003	0.3832	2.5500e-003	0.3857	0.1016	2.3500e-003	0.1040		376.3459	376.3459	0.0105		376.6077
<b>Total</b>	<b>0.1441</b>	<b>0.1003</b>	<b>1.1723</b>	<b>3.7800e-003</b>	<b>0.3832</b>	<b>2.5500e-003</b>	<b>0.3857</b>	<b>0.1016</b>	<b>2.3500e-003</b>	<b>0.1040</b>		<b>376.3459</b>	<b>376.3459</b>	<b>0.0105</b>		<b>376.6077</b>

**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	17.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>17.7505</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Unmitigated - San Diego County, Summer

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1441	0.1003	1.1723	3.7800e-003	0.3832	2.5500e-003	0.3857	0.1016	2.3500e-003	0.1040		376.3459	376.3459	0.0105		376.6077
<b>Total</b>	<b>0.1441</b>	<b>0.1003</b>	<b>1.1723</b>	<b>3.7800e-003</b>	<b>0.3832</b>	<b>2.5500e-003</b>	<b>0.3857</b>	<b>0.1016</b>	<b>2.3500e-003</b>	<b>0.1040</b>		<b>376.3459</b>	<b>376.3459</b>	<b>0.0105</b>		<b>376.6077</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Improve Destination Accessibility

Increase Transit Frequency

## Sunrise Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	2.3445	9.3399	25.4318	0.0883	7.5680	0.0713	7.6393	2.0226	0.0665	2.0891		8,977.429 2	8,977.429 2	0.4616		8,988.969 3
Unmitigated	2.5486	10.4868	30.1579	0.1078	9.3655	0.0861	9.4516	2.5030	0.0804	2.5834		10,958.97 82	10,958.97 82	0.5480		10,972.67 74

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,536.00	1,499.52	1278.72	4,296,245	3,471,675
Parking Lot	0.00	0.00	0.00		
Total	1,536.00	1,499.52	1,278.72	4,296,245	3,471,675

## 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
Condo/Townhouse	7.90	7.90	7.90	41.60	18.80	39.60	100	0	0
Parking Lot	14.70	6.60	6.60	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
Condo/Townhouse	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## Sunrise Unmitigated - San Diego County, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.0548	0.4687	0.1994	2.9900e-003		0.0379	0.0379		0.0379	0.0379		598.3012	598.3012	0.0115	0.0110	601.8566
NaturalGas Unmitigated	0.0879	0.7510	0.3196	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.7691	958.7691	0.0184	0.0176	964.4666

## Sunrise Unmitigated - San Diego County, Summer

**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					
Condo/Townhouse	8149.54	0.0879	0.7510	0.3196	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.7691	958.7691	0.0184	0.0176	964.4666
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0879</b>	<b>0.7510</b>	<b>0.3196</b>	<b>4.7900e-003</b>		<b>0.0607</b>	<b>0.0607</b>		<b>0.0607</b>	<b>0.0607</b>		<b>958.7691</b>	<b>958.7691</b>	<b>0.0184</b>	<b>0.0176</b>	<b>964.4666</b>

**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					
Condo/Townhouse	5.08556	0.0548	0.4687	0.1994	2.9900e-003		0.0379	0.0379		0.0379	0.0379		598.3012	598.3012	0.0115	0.0110	601.8566
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0548</b>	<b>0.4687</b>	<b>0.1994</b>	<b>2.9900e-003</b>		<b>0.0379</b>	<b>0.0379</b>		<b>0.0379</b>	<b>0.0379</b>		<b>598.3012</b>	<b>598.3012</b>	<b>0.0115</b>	<b>0.0110</b>	<b>601.8566</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Sunrise Unmitigated - San Diego County, Summer

	ROG	NOx	CO	SO2	Fugitive 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	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286
Unmitigated	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286

## 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	0.6484					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4797	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876		28.5396	28.5396	0.0276		29.2286
<b>Total</b>	<b>7.5541</b>	<b>0.1830</b>	<b>15.8655</b>	<b>8.4000e-004</b>		<b>0.0876</b>	<b>0.0876</b>		<b>0.0876</b>	<b>0.0876</b>	<b>0.0000</b>	<b>28.5396</b>	<b>28.5396</b>	<b>0.0276</b>	<b>0.0000</b>	<b>29.2286</b>



## Sunrise Unmitigated - San Diego County, Summer

**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	0.6484					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4797	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876		28.5396	28.5396	0.0276		29.2286
<b>Total</b>	<b>7.5541</b>	<b>0.1830</b>	<b>15.8655</b>	<b>8.4000e-004</b>		<b>0.0876</b>	<b>0.0876</b>		<b>0.0876</b>	<b>0.0876</b>	<b>0.0000</b>	<b>28.5396</b>	<b>28.5396</b>	<b>0.0276</b>	<b>0.0000</b>	<b>29.2286</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## Sunrise Unmitigated - San Diego County, Summer

Institute Recycling and Composting Services

**9.0 Operational Offroad**

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

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**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**

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## Sunrise Unmitigated - San Diego County, Winter

## Sunrise Unmitigated

### San Diego County, Winter

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	80.00	Space	0.72	32,000.00	0
Condo/Townhouse	192.00	Dwelling Unit	6.94	299,750.00	592

### 1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	509.15	CH4 Intensity (lb/MWhr)	0.02	N2O Intensity (lb/MWhr)	0.004

### 1.3 User Entered Comments & Non-Default Data

## Sunrise Unmitigated - San Diego County, Winter

Project Characteristics - Interpolated for RPS 2022

Land Use - Data from applicant.

Construction Phase - Data from applicant.

Off-road Equipment -

Off-road Equipment - Data from applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data from applicant.

Trips and VMT - Data from applicant.

Grading - Data from applicant.

Architectural Coating - SDAPCD VOC Rule 67.0.1

Vehicle Trips - Based on LLG 2018 project-specific traffic study and adjusted weekend trip rates from CalEEMod default. SANDAG average trip length for all residential.

Woodstoves - Applicant data.

Area Coating - SDAPCD Rule 67.0.1.

Energy Use - Increased to account for increased population 592 persons.

Water And Wastewater - Increased to account for increased population 592 persons.

Solid Waste - scaled to include 299750 SF building size

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - CAPCOA 2010 LUT-5 7.54% =  $((-4.4 \times 0.6 + 15.2) - 1.3) - 0.67$

Energy Mitigation - zero net energy; high efficiency lighting

Water Mitigation -

Waste Mitigation - 75% waste diversion consistent with AB 341 (not mitigation)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00

## Sunrise Unmitigated - San Diego County, Winter

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	106.00
tblConstructionPhase	NumDays	20.00	88.00
tblConstructionPhase	NumDays	230.00	327.00
tblConstructionPhase	NumDays	20.00	135.00
tblEnergyUse	LightingElect	1,001.10	1,078.34
tblEnergyUse	NT24E	3,795.01	4,087.83
tblEnergyUse	NT24NG	4,180.00	4,502.52
tblEnergyUse	T24E	227.22	244.75
tblEnergyUse	T24NG	10,202.85	10,990.09
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	105.60	0.00
tblFireplaces	NumberNoFireplace	19.20	192.00
tblFireplaces	NumberWood	67.20	0.00
tblGrading	AcresOfGrading	53.00	14.40
tblGrading	MaterialExported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	192,000.00	299,750.00
tblLandUse	LotAcreage	12.00	6.94
tblLandUse	Population	549.00	592.00

## Sunrise Unmitigated - San Diego County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02
tblProjectCharacteristics	CO2IntensityFactor	720.49	509.15
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	88.32	95.13
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HS_TL	7.10	7.90
tblVehicleTrips	HW_TL	16.80	7.90
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	5.67	7.81
tblVehicleTrips	SU_TR	4.84	6.66
tblVehicleTrips	WD_TR	5.81	8.00
tblWater	IndoorWaterUseRate	12,509,572.92	13,474,792.43
tblWoodstoves	NumberCatalytic	9.60	0.00
tblWoodstoves	NumberNoncatalytic	9.60	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

## Sunrise Unmitigated - San Diego County, Winter

**2.0 Emissions Summary****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					
2020	6.5428	56.4742	60.0971	0.1056	12.3339	3.1456	13.7223	6.6978	2.9171	7.9755	0.0000	10,301.47 37	10,301.47 37	2.3652	0.0000	10,360.60 26
2021	22.5007	39.9468	46.8525	0.0868	2.4839	2.1214	4.6053	0.6623	1.9787	2.6411	0.0000	8,478.541 0	8,478.541 0	1.6620	0.0000	8,520.090 5
<b>Maximum</b>	<b>22.5007</b>	<b>56.4742</b>	<b>60.0971</b>	<b>0.1056</b>	<b>12.3339</b>	<b>3.1456</b>	<b>13.7223</b>	<b>6.6978</b>	<b>2.9171</b>	<b>7.9755</b>	<b>0.0000</b>	<b>10,301.47 37</b>	<b>10,301.47 37</b>	<b>2.3652</b>	<b>0.0000</b>	<b>10,360.60 26</b>

**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					
2020	6.5428	56.4742	60.0971	0.1056	4.9783	3.1456	6.3668	2.6580	2.9171	3.9358	0.0000	10,301.47 37	10,301.47 37	2.3652	0.0000	10,360.60 26
2021	22.5007	39.9468	46.8525	0.0868	2.4839	2.1214	4.6053	0.6623	1.9787	2.6411	0.0000	8,478.541 0	8,478.541 0	1.6620	0.0000	8,520.090 5
<b>Maximum</b>	<b>22.5007</b>	<b>56.4742</b>	<b>60.0971</b>	<b>0.1056</b>	<b>4.9783</b>	<b>3.1456</b>	<b>6.3668</b>	<b>2.6580</b>	<b>2.9171</b>	<b>3.9358</b>	<b>0.0000</b>	<b>10,301.47 37</b>	<b>10,301.47 37</b>	<b>2.3652</b>	<b>0.0000</b>	<b>10,360.60 26</b>

## Sunrise Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	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	49.64	0.00	40.13	54.89	0.00	38.05	0.00	0.00	0.00	0.00	0.00	0.00



## Sunrise Unmitigated - San Diego County, Winter

**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	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286
Energy	0.0879	0.7510	0.3196	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.7691	958.7691	0.0184	0.0176	964.4666
Mobile	2.4717	10.7785	29.5281	0.1022	9.3655	0.0866	9.4521	2.5030	0.0809	2.5839		10,396.6782	10,396.6782	0.5497		10,410.4210
<b>Total</b>	<b>10.1138</b>	<b>11.7125</b>	<b>45.7132</b>	<b>0.1079</b>	<b>9.3655</b>	<b>0.2350</b>	<b>9.6005</b>	<b>2.5030</b>	<b>0.2293</b>	<b>2.7323</b>	<b>0.0000</b>	<b>11,383.9869</b>	<b>11,383.9869</b>	<b>0.5957</b>	<b>0.0176</b>	<b>11,404.1162</b>

**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	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286
Energy	0.0548	0.4687	0.1994	2.9900e-003		0.0379	0.0379		0.0379	0.0379		598.3012	598.3012	0.0115	0.0110	601.8566
Mobile	2.2718	9.5605	25.2203	0.0837	7.5680	0.0718	7.6398	2.0226	0.0671	2.0897		8,512.4494	8,512.4494	0.4659		8,524.0958
<b>Total</b>	<b>9.8807</b>	<b>10.2122</b>	<b>41.2852</b>	<b>0.0875</b>	<b>7.5680</b>	<b>0.1974</b>	<b>7.7654</b>	<b>2.0226</b>	<b>0.1926</b>	<b>2.2152</b>	<b>0.0000</b>	<b>9,139.2902</b>	<b>9,139.2902</b>	<b>0.5049</b>	<b>0.0110</b>	<b>9,155.1811</b>

## Sunrise Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	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	2.30	12.81	9.69	18.86	19.19	16.01	19.11	19.19	15.99	18.92	0.00	19.72	19.72	15.24	37.60	19.72

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2020	3/13/2020	5	10	
2	Grading	Grading	3/14/2020	8/10/2020	5	106	
3	Paving	Paving	7/1/2020	10/31/2020	5	88	
4	Building Construction	Building Construction	10/1/2020	12/31/2021	5	327	
5	Architectural Coating	Architectural Coating	6/27/2021	12/31/2021	5	135	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 14.4

Acres of Paving: 0.72

Residential Indoor: 606,994; Residential Outdoor: 202,331; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,920 (Architectural Coating – sqft)

#### OffRoad Equipment

## Sunrise Unmitigated - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	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
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
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	12	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
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
Site Preparation	4	4.00	1.00	125.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	5.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	152.00	26.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Sunrise Unmitigated - San Diego County, Winter

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Site Preparation - 2020****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					12.0582	0.0000	12.0582	6.6226	0.0000	6.6226			0.0000			0.0000
Off-Road	2.5780	26.8748	12.8226	0.0233		1.3762	1.3762		1.2661	1.2661		2,256.2220	2,256.2220	0.7297		2,274.4647
<b>Total</b>	<b>2.5780</b>	<b>26.8748</b>	<b>12.8226</b>	<b>0.0233</b>	<b>12.0582</b>	<b>1.3762</b>	<b>13.4344</b>	<b>6.6226</b>	<b>1.2661</b>	<b>7.8887</b>		<b>2,256.2220</b>	<b>2,256.2220</b>	<b>0.7297</b>		<b>2,274.4647</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.2 Site Preparation - 2020****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	0.1015	3.5206	0.8440	9.6200e-003	0.2184	0.0114	0.2298	0.0599	0.0109	0.0707		1,052.044 3	1,052.044 3	0.0975		1,054.482 2
Vendor	3.6900e-003	0.1076	0.0305	2.5000e-004	6.1200e-003	5.1000e-004	6.6400e-003	1.7600e-003	4.9000e-004	2.2500e-003		26.4139	26.4139	2.2000e-003		26.4689
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.1288</b>	<b>3.6447</b>	<b>1.0286</b>	<b>0.0104</b>	<b>0.2756</b>	<b>0.0122</b>	<b>0.2879</b>	<b>0.0752</b>	<b>0.0117</b>	<b>0.0869</b>		<b>1,127.181 8</b>	<b>1,127.181 8</b>	<b>0.1011</b>		<b>1,129.710 2</b>

**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					4.7027	0.0000	4.7027	2.5828	0.0000	2.5828			0.0000			0.0000
Off-Road	2.5780	26.8748	12.8226	0.0233		1.3762	1.3762		1.2661	1.2661	0.0000	2,256.222 0	2,256.222 0	0.7297		2,274.464 7
<b>Total</b>	<b>2.5780</b>	<b>26.8748</b>	<b>12.8226</b>	<b>0.0233</b>	<b>4.7027</b>	<b>1.3762</b>	<b>6.0789</b>	<b>2.5828</b>	<b>1.2661</b>	<b>3.8489</b>	<b>0.0000</b>	<b>2,256.222 0</b>	<b>2,256.222 0</b>	<b>0.7297</b>		<b>2,274.464 7</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.2 Site Preparation - 2020****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	0.1015	3.5206	0.8440	9.6200e-003	0.2184	0.0114	0.2298	0.0599	0.0109	0.0707		1,052.044 3	1,052.044 3	0.0975		1,054.482 2
Vendor	3.6900e-003	0.1076	0.0305	2.5000e-004	6.1200e-003	5.1000e-004	6.6400e-003	1.7600e-003	4.9000e-004	2.2500e-003		26.4139	26.4139	2.2000e-003		26.4689
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.1288</b>	<b>3.6447</b>	<b>1.0286</b>	<b>0.0104</b>	<b>0.2756</b>	<b>0.0122</b>	<b>0.2879</b>	<b>0.0752</b>	<b>0.0117</b>	<b>0.0869</b>		<b>1,127.181 8</b>	<b>1,127.181 8</b>	<b>0.1011</b>		<b>1,129.710 2</b>

**3.3 Grading - 2020****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					6.1662	0.0000	6.1662	3.3258	0.0000	3.3258			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>6.1662</b>	<b>1.2734</b>	<b>7.4396</b>	<b>3.3258</b>	<b>1.1716</b>	<b>4.4973</b>		<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.3 Grading - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	3.6900e-003	0.1076	0.0305	2.5000e-004	6.1200e-003	5.1000e-004	6.6400e-003	1.7600e-003	4.9000e-004	2.2500e-003		26.4139	26.4139	2.2000e-003		26.4689
Worker	0.0295	0.0206	0.1926	6.1000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		60.9045	60.9045	1.7700e-003		60.9488
<b>Total</b>	<b>0.0332</b>	<b>0.1282</b>	<b>0.2231</b>	<b>8.6000e-004</b>	<b>0.0700</b>	<b>9.4000e-004</b>	<b>0.0709</b>	<b>0.0187</b>	<b>8.9000e-004</b>	<b>0.0196</b>		<b>87.3184</b>	<b>87.3184</b>	<b>3.9700e-003</b>		<b>87.4177</b>

**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					2.4048	0.0000	2.4048	1.2971	0.0000	1.2971			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
<b>Total</b>	<b>2.4288</b>	<b>26.3859</b>	<b>16.0530</b>	<b>0.0297</b>	<b>2.4048</b>	<b>1.2734</b>	<b>3.6782</b>	<b>1.2971</b>	<b>1.1716</b>	<b>2.4686</b>	<b>0.0000</b>	<b>2,872.485 1</b>	<b>2,872.485 1</b>	<b>0.9290</b>		<b>2,895.710 6</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.3 Grading - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	3.6900e-003	0.1076	0.0305	2.5000e-004	6.1200e-003	5.1000e-004	6.6400e-003	1.7600e-003	4.9000e-004	2.2500e-003		26.4139	26.4139	2.2000e-003		26.4689
Worker	0.0295	0.0206	0.1926	6.1000e-004	0.0639	4.3000e-004	0.0643	0.0169	4.0000e-004	0.0173		60.9045	60.9045	1.7700e-003		60.9488
<b>Total</b>	<b>0.0332</b>	<b>0.1282</b>	<b>0.2231</b>	<b>8.6000e-004</b>	<b>0.0700</b>	<b>9.4000e-004</b>	<b>0.0709</b>	<b>0.0187</b>	<b>8.9000e-004</b>	<b>0.0196</b>		<b>87.3184</b>	<b>87.3184</b>	<b>3.9700e-003</b>		<b>87.4177</b>

**3.4 Paving - 2020****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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3780</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>



## Sunrise Unmitigated - San Diego County, Winter

**3.4 Paving - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		182.7135	182.7135	5.3100e-003		182.8463
<b>Total</b>	<b>0.0885</b>	<b>0.0618</b>	<b>0.5777</b>	<b>1.8300e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>182.7135</b>	<b>182.7135</b>	<b>5.3100e-003</b>		<b>182.8463</b>

**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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3780</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.4 Paving - 2020****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.0885	0.0618	0.5777	1.8300e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		182.7135	182.7135	5.3100e-003		182.8463
<b>Total</b>	<b>0.0885</b>	<b>0.0618</b>	<b>0.5777</b>	<b>1.8300e-003</b>	<b>0.1916</b>	<b>1.2900e-003</b>	<b>0.1929</b>	<b>0.0508</b>	<b>1.1900e-003</b>	<b>0.0520</b>		<b>182.7135</b>	<b>182.7135</b>	<b>5.3100e-003</b>		<b>182.8463</b>

**3.5 Building Construction - 2020****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	4.0839	38.9218	38.2207	0.0560		2.3651	2.3651		2.1985	2.1985		5,372.7678	5,372.7678	1.5348		5,411.1380
<b>Total</b>	<b>4.0839</b>	<b>38.9218</b>	<b>38.2207</b>	<b>0.0560</b>		<b>2.3651</b>	<b>2.3651</b>		<b>2.1985</b>	<b>2.1985</b>		<b>5,372.7678</b>	<b>5,372.7678</b>	<b>1.5348</b>		<b>5,411.1380</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.5 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0959	2.7984	0.7929	6.4000e-003	0.1592	0.0133	0.1725	0.0458	0.0128	0.0586		686.7622	686.7622	0.0572		688.1921
Worker	0.8965	0.6267	5.8539	0.0186	1.9415	0.0131	1.9546	0.5149	0.0121	0.5269		1,851.4967	1,851.4967	0.0538		1,852.8422
<b>Total</b>	<b>0.9924</b>	<b>3.4250</b>	<b>6.6467</b>	<b>0.0250</b>	<b>2.1007</b>	<b>0.0264</b>	<b>2.1271</b>	<b>0.5607</b>	<b>0.0248</b>	<b>0.5855</b>		<b>2,538.2589</b>	<b>2,538.2589</b>	<b>0.1110</b>		<b>2,541.0343</b>

**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	4.0839	38.9218	38.2207	0.0560		2.3651	2.3651		2.1985	2.1985	0.0000	5,372.7678	5,372.7678	1.5348		5,411.1380
<b>Total</b>	<b>4.0839</b>	<b>38.9218</b>	<b>38.2207</b>	<b>0.0560</b>		<b>2.3651</b>	<b>2.3651</b>		<b>2.1985</b>	<b>2.1985</b>	<b>0.0000</b>	<b>5,372.7678</b>	<b>5,372.7678</b>	<b>1.5348</b>		<b>5,411.1380</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.5 Building Construction - 2020****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0959	2.7984	0.7929	6.4000e-003	0.1592	0.0133	0.1725	0.0458	0.0128	0.0586		686.7622	686.7622	0.0572		688.1921
Worker	0.8965	0.6267	5.8539	0.0186	1.9415	0.0131	1.9546	0.5149	0.0121	0.5269		1,851.4967	1,851.4967	0.0538		1,852.8422
<b>Total</b>	<b>0.9924</b>	<b>3.4250</b>	<b>6.6467</b>	<b>0.0250</b>	<b>2.1007</b>	<b>0.0264</b>	<b>2.1271</b>	<b>0.5607</b>	<b>0.0248</b>	<b>0.5855</b>		<b>2,538.2589</b>	<b>2,538.2589</b>	<b>0.1110</b>		<b>2,541.0343</b>

**3.5 Building Construction - 2021****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	3.6566	35.2053	37.7649	0.0561		2.0065	2.0065		1.8653	1.8653		5,374.3021	5,374.3021	1.5284		5,412.5112
<b>Total</b>	<b>3.6566</b>	<b>35.2053</b>	<b>37.7649</b>	<b>0.0561</b>		<b>2.0065</b>	<b>2.0065</b>		<b>1.8653</b>	<b>1.8653</b>		<b>5,374.3021</b>	<b>5,374.3021</b>	<b>1.5284</b>		<b>5,412.5112</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.5 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0785	2.5322	0.7193	6.3300e-003	0.1592	5.3200e-003	0.1645	0.0458	5.0800e-003	0.0509		680.4165	680.4165	0.0548		681.7867
Worker	0.8477	0.5700	5.4709	0.0180	1.9415	0.0129	1.9544	0.5149	0.0119	0.5268		1,789.2358	1,789.2358	0.0497		1,790.4779
<b>Total</b>	<b>0.9263</b>	<b>3.1021</b>	<b>6.1903</b>	<b>0.0243</b>	<b>2.1007</b>	<b>0.0182</b>	<b>2.1189</b>	<b>0.5607</b>	<b>0.0170</b>	<b>0.5777</b>		<b>2,469.6522</b>	<b>2,469.6522</b>	<b>0.1045</b>		<b>2,472.2646</b>

**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	3.6566	35.2053	37.7649	0.0561		2.0065	2.0065		1.8653	1.8653	0.0000	5,374.3021	5,374.3021	1.5284		5,412.5112
<b>Total</b>	<b>3.6566</b>	<b>35.2053</b>	<b>37.7649</b>	<b>0.0561</b>		<b>2.0065</b>	<b>2.0065</b>		<b>1.8653</b>	<b>1.8653</b>	<b>0.0000</b>	<b>5,374.3021</b>	<b>5,374.3021</b>	<b>1.5284</b>		<b>5,412.5112</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.5 Building Construction - 2021****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		0.0000	0.0000	0.0000		0.0000
Vendor	0.0785	2.5322	0.7193	6.3300e-003	0.1592	5.3200e-003	0.1645	0.0458	5.0800e-003	0.0509		680.4165	680.4165	0.0548		681.7867
Worker	0.8477	0.5700	5.4709	0.0180	1.9415	0.0129	1.9544	0.5149	0.0119	0.5268		1,789.2358	1,789.2358	0.0497		1,790.4779
<b>Total</b>	<b>0.9263</b>	<b>3.1021</b>	<b>6.1903</b>	<b>0.0243</b>	<b>2.1007</b>	<b>0.0182</b>	<b>2.1189</b>	<b>0.5607</b>	<b>0.0170</b>	<b>0.5777</b>		<b>2,469.6522</b>	<b>2,469.6522</b>	<b>0.1045</b>		<b>2,472.2646</b>

**3.6 Architectural Coating - 2021****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	17.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>17.7505</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1673	0.1125	1.0798	3.5400e-003	0.3832	2.5500e-003	0.3857	0.1016	2.3500e-003	0.1040		353.1386	353.1386	9.8100e-003		353.3838
<b>Total</b>	<b>0.1673</b>	<b>0.1125</b>	<b>1.0798</b>	<b>3.5400e-003</b>	<b>0.3832</b>	<b>2.5500e-003</b>	<b>0.3857</b>	<b>0.1016</b>	<b>2.3500e-003</b>	<b>0.1040</b>		<b>353.1386</b>	<b>353.1386</b>	<b>9.8100e-003</b>		<b>353.3838</b>

**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	17.5316					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>17.7505</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Sunrise Unmitigated - San Diego County, Winter

**3.6 Architectural Coating - 2021****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		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		0.0000	0.0000	0.0000		0.0000
Worker	0.1673	0.1125	1.0798	3.5400e-003	0.3832	2.5500e-003	0.3857	0.1016	2.3500e-003	0.1040		353.1386	353.1386	9.8100e-003		353.3838
<b>Total</b>	<b>0.1673</b>	<b>0.1125</b>	<b>1.0798</b>	<b>3.5400e-003</b>	<b>0.3832</b>	<b>2.5500e-003</b>	<b>0.3857</b>	<b>0.1016</b>	<b>2.3500e-003</b>	<b>0.1040</b>		<b>353.1386</b>	<b>353.1386</b>	<b>9.8100e-003</b>		<b>353.3838</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

Improve Destination Accessibility

Increase Transit Frequency



## Sunrise Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	2.2718	9.5605	25.2203	0.0837	7.5680	0.0718	7.6398	2.0226	0.0671	2.0897		8,512.449 4	8,512.449 4	0.4659		8,524.095 8
Unmitigated	2.4717	10.7785	29.5281	0.1022	9.3655	0.0866	9.4521	2.5030	0.0809	2.5839		10,396.67 82	10,396.67 82	0.5497		10,410.42 10

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	1,536.00	1,499.52	1278.72	4,296,245	3,471,675
Parking Lot	0.00	0.00	0.00		
Total	1,536.00	1,499.52	1,278.72	4,296,245	3,471,675

## 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
Condo/Townhouse	7.90	7.90	7.90	41.60	18.80	39.60	100	0	0
Parking Lot	14.70	6.60	6.60	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
Condo/Townhouse	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

## Sunrise Unmitigated - San Diego County, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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	0.0548	0.4687	0.1994	2.9900e-003		0.0379	0.0379		0.0379	0.0379		598.3012	598.3012	0.0115	0.0110	601.8566
NaturalGas Unmitigated	0.0879	0.7510	0.3196	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.7691	958.7691	0.0184	0.0176	964.4666

## Sunrise Unmitigated - San Diego County, Winter

**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					
Condo/Townhouse	8149.54	0.0879	0.7510	0.3196	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.7691	958.7691	0.0184	0.0176	964.4666
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0879</b>	<b>0.7510</b>	<b>0.3196</b>	<b>4.7900e-003</b>		<b>0.0607</b>	<b>0.0607</b>		<b>0.0607</b>	<b>0.0607</b>		<b>958.7691</b>	<b>958.7691</b>	<b>0.0184</b>	<b>0.0176</b>	<b>964.4666</b>

**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					
Condo/Townhouse	5.08556	0.0548	0.4687	0.1994	2.9900e-003		0.0379	0.0379		0.0379	0.0379		598.3012	598.3012	0.0115	0.0110	601.8566
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0548</b>	<b>0.4687</b>	<b>0.1994</b>	<b>2.9900e-003</b>		<b>0.0379</b>	<b>0.0379</b>		<b>0.0379</b>	<b>0.0379</b>		<b>598.3012</b>	<b>598.3012</b>	<b>0.0115</b>	<b>0.0110</b>	<b>601.8566</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Sunrise Unmitigated - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive 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	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286
Unmitigated	7.5541	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876	0.0000	28.5396	28.5396	0.0276	0.0000	29.2286

## 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	0.6484					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4797	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876		28.5396	28.5396	0.0276		29.2286
<b>Total</b>	<b>7.5541</b>	<b>0.1830</b>	<b>15.8655</b>	<b>8.4000e-004</b>		<b>0.0876</b>	<b>0.0876</b>		<b>0.0876</b>	<b>0.0876</b>	<b>0.0000</b>	<b>28.5396</b>	<b>28.5396</b>	<b>0.0276</b>	<b>0.0000</b>	<b>29.2286</b>

## Sunrise Unmitigated - San Diego County, Winter

**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	0.6484					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4797	0.1830	15.8655	8.4000e-004		0.0876	0.0876		0.0876	0.0876		28.5396	28.5396	0.0276		29.2286
<b>Total</b>	<b>7.5541</b>	<b>0.1830</b>	<b>15.8655</b>	<b>8.4000e-004</b>		<b>0.0876</b>	<b>0.0876</b>		<b>0.0876</b>	<b>0.0876</b>	<b>0.0000</b>	<b>28.5396</b>	<b>28.5396</b>	<b>0.0276</b>	<b>0.0000</b>	<b>29.2286</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## Sunrise Unmitigated - San Diego County, Winter

Institute Recycling and Composting Services

**9.0 Operational Offroad**

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

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**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**

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# APPENDIX B

## *CO Hotspots Evaluation*

APPENDIX C  
*CAP Consistency Worksheet*





CEQA requires the assessment of the environmental impacts of proposed projects including the impacts of GHG emissions. The purpose of this appendix is to provide guidance on how to determine the significance of GHG-related impacts from proposed land use projects within the jurisdictional boundaries of the City of San Marcos that are subject to CEQA.<sup>1</sup>

The City of San Marcos Climate Action Plan (CAP) was developed to comprehensively analyze and mitigate the significant effects of GHG emissions consistent with CEQA Guidelines Section 15183.5(b) and to support the State's efforts to reduce GHG emissions under Executive Order S-3-05 and AB 32 (see CAP Chapter 1, Sections 1.1 and 1.5). Pursuant to CEQA Guidelines Sections 15064(h)(3) and 15130(d), if a project is consistent and complies with the requirements of an adopted plan, such as a CAP, that includes the attributes specified in CEQA Guidelines Section 15183.5(h), the lead agency may determine that the project's GHG impacts are less than significant with no further analysis required. Section E.1 of this appendix sets forth a CAP consistency worksheet that an applicant may use to demonstrate project compliance with the CAP. This checklist should be filled out for each new project, subject to discretionary review of the City of San Marcos.

If it is determined that a proposed project is not consistent with the CAP, further analysis would be required and the applicant would be required to demonstrate that the proposed project's GHG emissions fall below the GHG thresholds of significance set forth in Section E.2 of this appendix. The project would also be required to demonstrate that it would not substantially interfere with implementation of the CAP.

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<sup>1</sup> This would generally exclude GHG emissions from stationary sources, which are most effectively regulated by the San Diego County Air Pollution Control District or through federal and state programs.

## APPENDIX B-3

### CO Hotspots Screening Evaluation

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To verify that the project would not cause or contribute to a violation of the carbon monoxide (CO) standards, a screening evaluation of the potential for CO hotspots was conducted. The California Department of Transportation (Caltrans) and the U.C. Davis Institute of Transportation Studies *Transportation Project-Level Carbon Monoxide Protocol* (CO Protocol) (Caltrans 1997), and the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook* (SCAQMD 1993) were followed. CO hotspots are typically evaluated when (1) the level of service (LOS) of an intersection or roadway decreases to LOS E or worse, (2) signalization and/or channelization is added to an intersection, and (3) sensitive receptors such as residences, schools, and hospitals are located in the vicinity of the affected intersection or roadway segment.

For each intersection, the screening evaluation presents LOS with project improvements (mitigation), whether the recommended improvements (mitigation measures) are feasible, and whether a quantitative CO hotspots analysis may be required. According to the CO Protocol, there is a cap on the number of intersections that need to be analyzed for any one project. For a single project with multiple intersections, only the three intersections representing the worst LOS ratings of the project, and, to the extent they are different intersections, the three intersections representing the highest traffic volumes, need be analyzed. For each intersection failing a screening test as described in this protocol, an additional intersection should be analyzed (Caltrans 1997).

Table 1 shows a summary of the Project's LOS for all eleven intersections evaluated 2021.

## APPENDIX C (Continued)

**Table 1**  
**Sunrise Project Intersection Analysis**

Intersection	Control	Peak	Existing + Project
			LOS
1. Berham Drive & SR-78 EB Off-Ramp	Signalized	AM	B
		PM	A
2. Rancheros Drive & SR-78 WB Ramps	AWSC	AM	<b>F</b>
		PM	<b>F</b>
3. Woodland Parkway & Rancheros Drive	Signalized	AM	C
		PM	C
4. Berham Drive & Woodland Parkway	Signalized	AM	A
		PM	C
5. Berham Drive & SR-78 EB On-Ramp	Signalized	AM	A
		PM	C
6. Berham Drive & Project Driveway	MSSC	AM	N/A
		PM	N/A
7. Berham Drive & Meyers Avenue	Signalized	AM	A
		PM	A
8. Berham Drive & Mission Road	Signalized	AM	C
		PM	C
9. Mission Road & Nordahl Road	Signalized	AM	D
		PM	<b>E</b>
10. Nordahl Road & SR-78 EB Ramps	Signalized	AM	C
		PM	D
11. Nordahl Road & SR-78 WB Ramps	Signalized	AM	C
		PM	C

Notes: AWSC = all-way stop controlled intersection; EB = eastbound; LOS = Level of Service; MSSC = minor street stop controlled intersection; N/A = not applicable; SR = State Route; WB = westbound  
 Bold indicates a LOS of E or worse.

# Mission&Nordahl.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Mission&Nordahl  
RUN: STANDARD RUN  
POLLUTANT: CO

## I. SITE VARIABLES

U= 1.0 M/S                      Z0= 100. CM                      ALT= 234.7 (M)  
BRG= 0.0 DEGREES              VD= 0.0 CM/S  
CLAS= 7 (G)                      VS= 0.0 CM/S  
MIXH= 1000. M                      AMB= 3.8 PPM  
SIGTH= 10. DEGREES              TEMP= 5.1 DEGREE (C)

## II. LINK VARIABLES

LINK	*	LINK	COORDINATES (FT)	*	EF	H	W			
DESCRIPTION	*	X1	Y1	X2	Y2	TYPE	VPH	(G/MI)	(FT)	(FT)
A. Mission Rd W	*	500	36	30	36	AG	485	2.3	0.0	33.0
B. Mission Rd W	*	500	18	-30	18	AG	747	2.3	0.0	33.0
C. Mission Rd W	*	500	-12	-18	-12	AG	226	2.3	0.0	33.0
D. Mission Rd W	*	-30	18	-500	18	AG	975	2.3	0.0	33.0
E. Mission Rd E	*	-500	-12	30	-12	AG	46	2.3	0.0	33.0
F. Mission Rd E	*	-500	-36	0	-36	AG	692	2.3	0.0	33.0
G. Mission Rd E	*	-500	-54	-18	-54	AG	485	2.3	0.0	33.0
H. Mission Rd E	*	0	-36	500	-36	AG	1717	2.3	0.0	33.0
I. Nordahl Rd N	*	12	-500	12	18	AG	447	2.3	0.0	33.0
J. Nordahl Rd N	*	30	-500	30	-12	AG	785	2.3	0.0	33.0
K. Nordahl Rd N	*	42	-500	42	-36	AG	50	2.3	0.0	33.0
L. Nordahl Rd N	*	30	-12	30	500	AG	1755	2.3	0.0	33.0
M. Nordahl Rd S	*	0	500	0	-36	AG	178	2.3	0.0	33.0
N. Nordahl Rd S	*	-18	500	-18	-12	AG	314	2.3	0.0	33.0
O. Nordahl Rd S	*	-30	500	-30	18	AG	578	2.3	0.0	33.0
P. Nordahl Rd S	*	-18	-12	-18	-500	AG	586	2.3	0.0	33.0

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)
	*	X      Y      Z
1. SR1	*	-60      50      5.9

Mission&Nordahl.dat

2. SR2	*	60	70	5.9
3. SR3	*	-50	-80	5.9
4. SR4	*	70	-70	5.9

↑

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Mission&Nordahl  
RUN: STANDARD RUN  
POLLUTANT: CO

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED *	* CONC *	CONC/LINK (PPM)										
	* (PPM) *		A	B	C	D	E	F	G	H	I	J	
1. SR1	* 3.9 *		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2. SR2	* 3.9 *		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3. SR3	* 4.0 *		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4. SR4	* 4.1 *		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	

RECEPTOR	* CONC/LINK *	(PPM)					
	* K L M N O P *						
1. SR1	* 0.0 0.0 0.0 0.0 0.0 0.0 *						
2. SR2	* 0.0 0.1 0.0 0.0 0.0 0.0 *						
3. SR3	* 0.0 0.0 0.0 0.0 0.1 0.0 *						
4. SR4	* 0.0 0.1 0.0 0.0 0.0 0.0 *						

↑

# Rancheros&SR78.dat

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Rancheros&SR78  
RUN: STANDARD RUN  
POLLUTANT: CO

## I. SITE VARIABLES

U= 1.0 M/S                      Z0= 100. CM                      ALT= 234.7 (M)  
BRG= 0.0 DEGREES              VD= 0.0 CM/S  
CLAS= 7 (G)                      VS= 0.0 CM/S  
MIXH= 1000. M                      AMB= 3.8 PPM  
SIGTH= 10. DEGREES              TEMP= 5.1 DEGREE (C)

## II. LINK VARIABLES

LINK	*	LINK	COORDINATES (FT)	*		EF	H	W		
DESCRIPTION	*	X1	Y1	X2	Y2	TYPE	VPH	(G/MI)	(FT)	(FT)
A. Rancheros Rd	*	500	18	-30	18	AG	536	2.3	0.0	33.0
B. Rancheros Rd	*	500	-12	-18	-12	AG	53	2.3	0.0	33.0
C. Rancheros Rd	*	-30	18	-500	18	AG	690	2.3	0.0	33.0
D. Craven Rd	EB *	-500	-36	0	-36	AG	231	2.3	0.0	33.0
E. Craven Rd	E *	-500	-54	-18	-54	AG	434	2.3	0.0	33.0
F. Craven Rd	EB *	0	-36	500	-36	AG	550	2.3	0.0	33.0
G. Twin Oaks Va	*	12	-500	12	18	AG	116	2.3	0.0	33.0
H. Twin Oaks Va	*	42	-500	42	-36	AG	154	2.3	0.0	33.0
I. Twin Oaks Va	*	30	-12	30	500	AG	0	2.3	0.0	33.0

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)
	*	X      Y      Z
1. SR1	*	-60      50      5.9
2. SR2	*	60      70      5.9
3. SR3	*	-50      -80      5.9
4. SR4	*	70      -70      5.9



Rancheros&SR78.dat  
 CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
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 PAGE 2

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IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	* PRED *		CONC/LINK									
	* CONC *		(PPM)									
	* (PPM) *		A	B	C	D	E	F	G	H	I	
	* *		-----									
1. SR1	*	3.8 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. SR2	*	3.8 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. SR3	*	3.9 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. SR4	*	3.9 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



## E.1 CAP Consistency Worksheet

To determine project consistency and compliance with the CAP, the applicant should complete Sections A and B below, providing project-level details in the space provided. Generally, only projects that are consistent with the General Plan land use designations and population and employment projections, upon which the GHG emissions modeling and CAP is based, can apply for a determination of consistency with the CAP. In addition, all mandatory actions identified in Section B must be incorporated as binding and enforceable components of the project for it to be found consistent with the CAP. If an action is not applicable to the proposed project, please identify and explain.

At this time, the voluntary actions are not required for project consistency with the CAP; however, if a project does include voluntary actions identified in Section B, project-level details should be described to help the City track implementation of voluntary CAP actions that would contribute to San Marcos' achievement of its GHG emissions reduction targets.

If the project cannot meet one or more of the mandatory actions, substitutions (preferably starting with the voluntary actions) may be allowed if the applicant can demonstrate how substituted actions would achieve equivalent reductions to the City's satisfaction. The applicant would also be required to demonstrate that the project would not substantially interfere with implementation of the mandatory CAP actions.

If it is determined that the proposed project is not consistent with the CAP, further CEQA analysis would be required (see Section E.2 of this appendix).



**A. Project Information**

<b>Date:</b>	5/1/18
<b>Project Name:</b>	Sunrise
<b>Project Address:</b>	APN: 228-312-09, 10
<b>Project Type:</b>	SPA, Multi-Family Residential/Open Space
<b>Project Size:</b>	14.4 acres
<b>Land Use Designation(s)</b>	SPA
<b>Zoning Designation(s)</b>	SPA
<b>Project Service Population (Residents + Employees):</b>	592
<b>Brief Project Description:</b>	See Attached
<b>Compliance Checklist Prepared By:</b>	Dudek

**B. CAP Compliance Worksheet**

Measure Name	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Description/Details*
<b>E-2: Energy Efficient New Construction</b>	Does the project incorporate all feasible energy efficiency measures identified in General Plan EIR Mitigation Measure GHG-5?	Mandatory	Y	No solar heaters/elec. Pre-wiring 220 <span>+</span>
	Does the project exceed 2013 Title 24 Building Energy Efficiency Standards?	Voluntary	Y	The project would comply with the 20 <span>+</span>
	Does the project include Zero Net Energy buildings?	Mandatory (for residential projects built after 2020, otherwise voluntary)	Y	
	Will the project achieve LEED, GreenPoint, or other green building certifications?	Voluntary	N	
<b>E-4: Smart Meters</b>	Will smart meters be installed as part of the project, consistent with General Plan EIR Mitigation Measure GHG-5?	Mandatory	Y	Smart meters would be installed.
	Will programmable thermostats be installed as part of the project, consistent with General Plan EIR Mitigation Measure GHG-5?	Mandatory	Y	Programmable thermostats would be i <span>+</span>
<b>E-5: On-Site Small-Scale Solar Energy</b>	Does the project incorporate all feasible renewable energy measures identified in General Plan EIR Mitigation Measure GHG-5? If so, what type of and how much renewable energy would be generated?	Mandatory	Y	No solar heaters/elec.
<b>T-1: Smart Growth</b>	Is the project consistent with the land use designation(s) shown on the General Plan Citywide Land Use map (August 2012) and with the applicable General Plan Land Use and Community Design Element policies?	Mandatory	N	The project would update the land use <span>+</span>



Measure Name	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Description/Details*
	Is the project generally consistent with applicable design guidelines and SANDAG Smart Growth publications, including Designing for Smart Growth, Creating Great Places in the San Diego Region (2009) and Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region (2002)?	Mandatory	Y	See above.
	Does the project provide non-motorized connections to and reduce barriers between neighborhoods, activity centers, and transit corridors contiguous to site, consistent with the General Plan?	Mandatory	Y	The project would provide internal bike
	Does the project incorporate any "smart parking" techniques, such as shared parking, collective parking, park once strategies, or in lieu parking fees, as allowed by the Municipal Code?	Voluntary	No	Providing a parking management plan
<b>T-2: Bicycle and Pedestrian Environment</b>	Does the project incorporate bicycle facilities and a connected bicycle network, consistent with the General Plan and as specified in the Municipal Code?	Mandatory	Y	The project is located 1/3 mile from sp
	Does the project meet the City's minimum design criteria for pedestrian circulation?	Mandatory	Y	Pedestrian access is provided through
	Does the project include fair share payments to mitigate any impacts to pedestrian and bicycle facilities, consistent with the General Plan and General Plan EIR?	Mandatory	Y	
	In areas that have or will have high levels of pedestrian activity, does the project support safe pedestrian travel by providing detached sidewalks, bulb-outs,	Mandatory	N/A	



Measure Name	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Description/Details*
	enhanced pedestrian crossings, pedestrian bridges, medians, and/or other traffic calming features, consistent with the General Plan?		Y	
	Does the project incorporate pedestrian or bicycle facilities and/or amenities beyond those required?	Voluntary	Y	Barham sidewalk connects to sprinter +
<b>T-3: Transit Travel</b>	Does the project provide or pay its fair share of bus turnouts and shelters where transit demand warrants such improvements?	Mandatory	N/A	
	Does the project incorporate non-motorized connections to and reduce barriers between transit stops contiguous to the project site?	Mandatory	Y	
	Is the project located at a transit node and/or along a transit corridor? If so, does it meet planning and design standards to generate, attract, and facilitate transit ridership?	Mandatory	N/A	
<b>T-4: Commute Trip Reduction</b>	Will the project implement transportation demand management requirements specified in the Municipal Code?	Mandatory	Y	
	Does the project annex into a congestion Management Community Facilities District, as required by the General Plan?	Mandatory	Y	
<b>T-5: Traffic Flow and Vehicle Idling</b>	Will the project, as applicable, provide signage at loading and unloading sites regarding vehicle idling limits?	Mandatory	N/A	The project would not include loading +
	Does the project incorporate roundabouts as an intersection control device where feasible?	Mandatory	N/A	See above.



Measure Name	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Description/Details*
<b>T-6: Low Carbon/ Alternative Fuel Vehicles</b>	Does the project provide or exceed the minimum number of plug-in electric vehicle recharge stations identified in the Municipal Code?	Mandatory	Y	Each residence garage would be pre-
	Does the project include the installation of compressed natural gas or other alternative fueling stations?	Voluntary	N	
<b>O-1: Construction Equipment Efficiency and Fuels</b>	Will 15% of construction vehicles and equipment utilize new technologies (repowered engines, electric drive trains), use CARB-approved low carbon fuel, or are electrically-powered by 2020? Note: percentage would increase to 20% for projects built after 2020.	Mandatory	Y	
	Will the contractor limit idling of construction equipment to three minutes and post clear signs for workers at the entrances to the site?	Mandatory	Y	
	If the project involves demolition or exterior construction, does it incorporate all feasible actions required by General Plan EIR mitigation measures AQ-1 and GHG-1?	Mandatory	N/A	The project would not include demoliti
<b>O-2: Lawn and Garden Equipment</b>	Does the project incorporate low-maintenance native landscaping consistent with the Municipal Code?	Mandatory	Y	The project would comply with all appl



Measure Name	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Description/Details*
<b>W-1: Exceed SB X7-7 Water Conservation Target</b>	Does the project incorporate all feasible water conservation and efficiency measures identified in General Plan EIR Mitigation Measure GHG-5?	Mandatory	Y	
	Does the project include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into the project design, consistent with General Plan EIR Mitigation Measure HWQ-4?	Mandatory	TBD	HWQ-4 not included
	Does the project include drought tolerant landscaping, consistent with General Plan EIR Mitigation Measure HWQ-3?	Mandatory	Yes	HWQ-4 not included
<b>W-2: Recycled Water</b>	Does the project meet the City's dual plumbing requirements identified in the Municipal Code?	Mandatory	N/A	
	Does the project incorporate state-of-the-art irrigation systems that reduce water consumption, including graywater systems, if feasible, and rainwater catchment, consistent with General Plan EIR Mitigation Measure HWQ-4?	Mandatory	TBD	HWQ-4 not included
	If recycled water is unavailable, does the project utilize graywater and/or deep water wells rather than potable water for irrigation and other non-drinking purposes, if feasible, consistent with General Plan EIR Mitigation Measure HWQ-4?	Mandatory	N/A	



Measure Name	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Description/Details*
<b>S-1: Solid Waste Reduction and Recycling</b>	If the project involves construction or demolition, will the contractor divert more than 50% of non-hazardous construction or demolition debris, to the maximum extent practicable of non-hazardous construction and demolition waste, consistent with General Plan EIR Mitigation Measure GHG-2?	Mandatory	Y	no demolition. only vegetation removal
	Will the project provide interior and exterior storage areas for recyclables, consistent with General Plan EIR Mitigation Measure GHG-5?	Mandatory	Y	
	Will the project provide adequate recycling containers in public areas, consistent with General Plan EIR Mitigation Measure GHG-5?	Mandatory	Y	
<b>U-1: Community Tree Planting</b>	Does the project incorporate shade trees within 40 feet of the south sides or within 60 feet of the west sides of properties and along bicycle and pedestrian routes, as required by General Plan EIR Mitigation Measure GHG-5?	Mandatory	Y	
	Does the project include the planting of native and drought-tolerant trees beyond those required as mitigation for tree removal? If so, how many?	Voluntary	Y	The project would plant 316 new trees

\*Please attach additional pages as needed to complete the description and provide project details.

## E.2 GHG Emissions Thresholds

Currently, there are no published statewide thresholds of significance for measuring the impact of GHG emissions generated by a proposed project. CEQA Guidelines Section 15064.7 indicates that “each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects.” For projects that are not consistent with the CAP, this section sets forth project-level GHG emissions thresholds, and guidance on how to analyze a project’s GHG emissions and determine whether its GHG emissions fall below the thresholds. The analysis, methodology, and significance determination (thresholds) are consistent with the San Marcos CAP, including the GHG emissions inventory, forecast, and GHG reduction targets. These targets and thresholds are consistent with the statewide GHG targets identified in AB 32 and Executive Order S-3-05 and ensure that San Marcos is providing GHG reductions locally that will complement the State efforts of stabilizing climate change.

If it is determined that the proposed project is not consistent with the CAP, further analysis would be required to determine whether its GHG emissions would exceed the project-level GHG emissions thresholds set forth in this section. The applicant would also be required to demonstrate that the project would not substantially interfere with implementation of the CAP measures and actions. Specifically, the applicant must demonstrate how the project will achieve its share of the established CAP targets by demonstrating that the project’s emissions would be equal to or less than the GHG emissions thresholds identified in the following section. These thresholds represent new development’s share of the established CAP targets on a per service population (resident and/or employee) basis.

It is important to note that the GHG thresholds would apply only to net new emissions associated with new projects. Though existing development is responsible for some share of the city’s GHG emissions, the city has developed measures to reduce emissions from existing development as part of this CAP. Net new emissions include only those emissions attributed to the project and take into account emissions displaced by the project. Depending on the characteristics of the project, net new emissions could be positive, neutral, or negative.

### Project-Level Efficiency Thresholds

The applicant must demonstrate to the City’s satisfaction how the project will achieve consistency with a project-level GHG efficiency threshold of 2.76 MT CO<sub>2</sub>e per service population for projects built by 2020 and/or 1.93 MT CO<sub>2</sub>e per service population for projects built after 2020 in order to find that the project’s GHG impacts are less than significant. As shown in the table below, the project-level efficiency thresholds were derived by dividing the city’s targeted emissions levels for 2020 and 2030 by the city’s 2020 and 2030



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service population respectively.<sup>2</sup> This type of threshold can be applied evenly to all project types (residential, commercial, or mixed use) throughout the city. It also allows highly efficient projects with higher total emissions to maintain consistency with the CAP and does not penalize projects based on their size.

### City of San Marcos Project-Level GHG Emissions Thresholds

	2020	2030
GHG Emissions Target (MT CO <sub>2</sub> e)	413,158	349,969
Projected Population	101,238	121,447
Projected Employment	48,241	60,272
Projected Service Population (population + employment)	149,479	181,719
<b>Emissions Threshold per Service Population (MT CO<sub>2</sub>e/SP)</b>	<b>2.76</b>	<b>1.93</b>

### Quantifying Project-Level GHG Emissions

To determine whether a proposed project's emissions are equal to or less than the appropriate threshold identified in the table above, the project's estimated GHG emissions must be divided by its estimated service population. Therefore, the first step is to quantify the project's operational and construction GHG emissions. Land use development projects typically include construction-related emissions as well as operational emissions associated with: mobile sources, energy, solid waste, water and wastewater, and other (e.g., landscaping, consumer products).

A range of data will be needed to complete a GHG analysis. Where data is not available, assumptions can be made to guide the analysis. Data needs include, but are not limited to:

- For construction emissions: the number and types of construction equipment; the material and waste transportation distances; and the number of workers and commute distances. It is important to note that construction emissions should be amortized over the expected life of the project (typically assumed to be 30 years) to avoid disproportionately high emissions in the first few years development.

<sup>2</sup> Targeted emissions levels used for the purposes of threshold development are higher than those identified in the CAP. This is due to an increase in allowable transportation emissions to account for 100 percent of project-generated vehicle trips to provide consistency with standard methodology for project-level GHG quantification.



## **"ATTACHMENT A"**

### **GENERAL PLAN EIR GHG MITIGATION MEASURES**

**Table ES-3**  
**Summary of Environmental Impacts and Mitigation Measures for the San Marcos General Plan**

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
<b>Mineral Resources</b> Implementation of the General Plan would not result in significant impacts related to mineral resources. (Less than Significant)	No mitigation is required.	Less than significant
<b>3.7 GREENHOUSE GAS EMISSIONS</b>		
<b>Generation of GHG Emissions</b> Implementation of the General Plan would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (Significant)	<p>GHG-1 To reduce construction-generated GHG emissions, projects seeking discretionary approval from the City shall implement all feasible measures for reducing GHG emissions associated with construction that are recommended by the City and/or SDAPCD at the time individual portions of the site undergo construction.</p> <p>The project applicant(s) for any particular discretionary <u>project may submit</u> a report to the City that substantiates why specific measures are considered infeasible for construction of that particular discretionary project and/or at that point in time. By requiring that the list of feasible measures be established prior to the selection of a primary contractor, this measure requires that the ability of a contractor to effectively implement the selected GHG reduction measures be inherent to the selection process.</p> <p>The recommended measures for reducing construction-related GHG emissions at the time of writing this EIR are listed below. The list will be updated as new technologies or methods become available. The project applicant(s) shall, at a minimum, be required to implement the following:</p> <ul style="list-style-type: none"> <li>• Improve fuel efficiency of construction equipment:               <ul style="list-style-type: none"> <li>○ reduce unnecessary idling (modify work practices, install auxiliary power for driver comfort);</li> <li>○ perform equipment maintenance (inspections, detect failures early, corrections);</li> <li>○ train equipment operators in proper use of equipment;</li> <li>○ use the proper size of equipment for the job; and</li> <li>○ use equipment with new technologies (repowered engines, electric drive trains).</li> </ul> </li> </ul>	Significant and Unavoidable

**Table ES-3**  
**Summary of Environmental Impacts and Mitigation Measures for the San Marcos General Plan**

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> <li>• Use alternative fuels for electricity generators and welders at construction sites such as propane or solar, or use electrical power.</li> <li>• Use an ARB-approved low-carbon fuel, such as biodiesel or renewable diesel for construction equipment. Emissions of NO<sub>x</sub> from the use of low carbon fuel must be reviewed and increases mitigated. Additional information about low-carbon fuels is available from ARB's Low Carbon Fuel Standard Program.</li> <li>• Reduce electricity use in the construction offices by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.</li> <li>• Recycle or salvage nonhazardous construction and demolition debris.</li> <li>• Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk, and curb materials).</li> <li>• Develop a plan to efficiently use water for adequate dust control. This may consist of the use of nonpotable water from a local source.</li> </ul>	
	<p>GHG-2 As a part of a contractor demolition package, require 25% of non-hazardous debris (excluding excavated soil and land-clearing debris) to be recycled or salvaged. Work with contractors to share best practices on building recycling and reuse and demolition techniques to minimize waste, dust generation, water and energy use and other impacts of construction and demolition work. (Implementation Program COS-7.4)</p>	
	<p>GHG-3 Upgrade the California Green Code and the San Marcos Green Building Ordinance requirements in a regular and timely manner as mainline construction practices develop and new materials and building products become available with the goal of meeting the state's Net Zero Energy goals by the year 2020. (Implementation Program COS-4.5)</p>	

**Table ES-3**  
**Summary of Environmental Impacts and Mitigation Measures for the San Marcos General Plan**

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>GHG-4 Partner with private industry (e.g., solar technology providers) to incorporated renewable energy features in commercial, business park, and industrial developments. (Implementation Program COS-4.8)</p> <p>GHG-5 GHG emission reduction strategies and their respective feasibility are likely to evolve over time. The applicants for projects developed as part of the <del>proposed</del> General Plan shall consider and implement, as feasible, the following nonexclusive and nonexhaustive list of measures. These measures are derived from multiple sources, including Appendix B of the California Air Pollution Control Officer's Association (CAPCOA) white paper, CEQA &amp; Climate Change (CAPCOA 2008); CAPCOA's Quantifying Greenhouse Gas Mitigation Measures. A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures (CAPCOA 2010); the California Attorney General's Office publication entitled The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level (California Attorney General's Office 2008); and the BAAQMD's CEQA Guidelines (BAAQMD 2010).</p> <p><u>Energy Efficiency</u></p> <ul style="list-style-type: none"> <li>• Install clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems, small wind turbines).</li> <li>• Install solar water heaters.</li> <li>• Encourage the use of smart meters and require programmable thermostats.</li> <li>• Require HVAC duct sealing and periodic inspection.</li> <li>• Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use. Plant shade trees within 40 feet of the south sides or within 60 feet of the west sides of properties.</li> <li>• Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Maximize daylight as an integral part of lighting systems in all</li> </ul>	

**Table ES-3**  
**Summary of Environmental Impacts and Mitigation Measures for the San Marcos General Plan**

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>buildings.</p> <ul style="list-style-type: none"> <li>• Install cool roof materials (albedo <math>\geq 30</math>).</li> <li>• Install light-colored “cool” pavements, and strategically locate shade trees along all bicycle and pedestrian routes.</li> </ul> <p><u>Water Conservation and Efficiency</u></p> <ul style="list-style-type: none"> <li>• With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public areas and commercial landscaping. Use water-efficient turf in parks and other turf-dependent spaces.</li> <li>• Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.</li> <li>• Design buildings and lots to be water-efficient. Only install water-efficient fixtures and appliances.</li> <li>• Consider restricting watering methods (e.g., prohibit systems that apply water to nonvegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces. These restrictions should be included in the Covenants, Conditions, and Restrictions of the community.</li> <li>• Provide education about water conservation and available programs and incentives.</li> </ul> <p><u>Solid Waste Measures</u></p> <ul style="list-style-type: none"> <li>• Provide interior and exterior storage areas for recyclables, food waste, and green waste at all buildings; create food waste and greenwaste curbside pickup.</li> <li>• Provide adequate recycling containers in public areas, including parks, school grounds, and pedestrian zones in areas of mixed-use development.</li> </ul>	
	<p>GHG-6 Continue to implement a full complement of City programs that encourage and accommodate recycling of a broad range of materials, including, but not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Curbside commingled recycling</li> <li>• Curbside green waste recycling</li> </ul>	

**Table ES-3**  
**Summary of Environmental Impacts and Mitigation Measures for the San Marcos General Plan**

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> <li>Waste motor oil collection</li> <li>Waste motor oil and commingled recycling drop off</li> <li>Sharp objects/needles medical recycling</li> <li>Electronic appliance recycling</li> <li>Commercial bin recycling</li> <li>Construction and demolition waste recycling</li> <li>Bulk-item materials collection</li> <li>Recycling at multiple-family housing complexes (Implementation Program COS-7.2)</li> </ul>	
	GHG-7 Educate the public regarding the various recycling programs that the City offers, and the benefits of recycling and waste reduction, including tips on how to recycle. (Implementation Program COS-7.3)	
	GHG-8 Coordinate development review of proposed projects with the applicable water districts to ensure that adequate water supplies are available to support new development and redevelopment. (Implementation Program COS-5.1)	
	GHG-9 The City will work with applicable water districts and the San Diego County Water Authority to examine strategies to address the City's water supply needs in compliance with the Urban Water Management Plan. (Implementation Program COS-5.2)	
	GHG-10 Work with water purveyors to expand opportunities for the use of recycled water for activities such as outdoor irrigation, toilet flushing, fire hydrants, commercial and industrial processes, carwashes, concrete batching, laundromats, dust control, parks, golf courses, other landscaped areas, and other appropriate water-intensive uses. (Implementation Program COS-5.3)	
<b>Conflict With An Applicable Plan, Policy, Or Regulation Adopted To Reduce Greenhouse Gas Emissions Implementation of the General Plan</b>	No mitigation is required.	Less than Significant



**Table ES-3**  
**Summary of Environmental Impacts and Mitigation Measures for the San Marcos General Plan**

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
would not conflict with the AB 32 Scoping Plan, or any other plans, policies, or regulations for the purpose of reducing GHG emissions. (Less than Significant)		
<b>3.8 HAZARDS AND HAZARDOUS MATERIALS</b>		
<b>Routine Use, Transportation, Disposal, and Release Of Hazardous Materials</b> Implementation of the General Plan would increase transportation of hazardous materials. (Significant)	HM-1 Restrict hazardous materials transportation to designated truck routes and time periods. (Implementation Program S-4.1)  HM-2 Maintain the existing arrangement with the County of San Diego Department of Environmental Health (DEH) Hazardous Materials Division (HMD) and local response teams for hazardous material spill response. (Implementation Program S-4.2)	Less than Significant
<b>Hazardous Materials within 0.25 Mile of Schools</b> Implementation of the General Plan would result in development and redevelopment within 0.25 mile of schools. (Significant)	HM-3 Continue to require and enforce CEQA review and Department of Education siting requirements for schools, parks and other applicable children-related land uses. (Implementation Program S-4.4)	Less than Significant
<b>Development on a Known Hazardous Materials Site</b> Implementation of the General Plan could allow development or redevelopment to occur on a known hazardous materials site. (Significant)	HM-4 Require Cortese List status submittal and review by DEH HMD or appropriate local agency for known or suspected contamination sites prior to issuance of building permits. (Implementation Program S-4.3)	Less than Significant
<b>Airport and Aircraft Hazards</b> Implementation of the General Plan would not result in significant impacts related to airport and aircraft hazards. (Less than Significant)	No mitigation is required.	Less than Significant
<b>Interference with an Adopted Emergency Plan</b> Implementation of the General Plan would not significantly impair implementation of, or physically	HM-5 Continue to secure funding for and update Emergency Operations Center plan. (Implementation Program S-5.3)  HM-6 Develop traffic light management plan for emergency events and coordinate such plan with NCTD for all significant Sprinter intersections.	Less than Significant

## Project Description: Sunrise

The Sunrise project proposes approximately 192 multi-family dwelling units and open space (passive and recreational) encompassing approximately 14.4-acres and is situated at the City of San Marcos' southeastern limits. Discretionary actions will include a Pre-Zone, General Plan Amendment, Multi-Family Site Development Plan, Tentative Subdivision Map, Specific Plan, and Conditional Use Permit. The Plan area is currently within portions of two jurisdictions; the City of San Marcos and the County of San Diego, however the entirety of the project resides within the City of San Marcos' sphere of influence. The Project proposes a Pre-zone to change the parcels within County jurisdiction from SR-1 to SPA. A General Plan Amendment is required to Rezone parcels and the portions of parcels within the jurisdiction of the County San Diego into the jurisdiction of the City of San Marcos. The project would Rezone parcel 228-312-09 located within San Marcos' jurisdiction, from Light Industrial (LI) to SPA. The project proposes to Rezone parcel 228-312-09 within the County (SR-1) and under the City of San Marcos' Sphere of Influence (LI) from SR-1/LI to SPA.

Dwelling Unit Summary			Building Composite Summary	
Two-Story Townhomes				
Plan Type	Square Footage	Units Count	Bldg./Total Floor Plans	Total Buildings
Plan 1 3B/2.5B	1,500 sf	42	Building A = (2x Plan One, 2x Plan Two, 2x Plan Three)	3
Plan 2 3B/2.5B	1,610 sf	17	Building B = (2x Plan One, 1 Plan Two, 2x Plan 3)	11
Plan 3 4B/2.5B	1,615 sf	42	Building C = (2x Plan One, 2x Plan Three)	7
Subtotal Units		101	Subtotal Two-Story Buildings	21
Three-Story Townhomes				
Plan Type	Square Footage	Unit Counts	Bldg./Total Floor Plans	Total Buildings
Plan 1 2B/2B	1,210 sf	22	Bldg. A = (Plan one, Plan Two, 2x Plan Three, 2x Plan four)	2
Plan 2 3B/3B	1,500 sf	22	Bldg. B = (2x Plan One, 2x Plan Two, Plan 4)	4
Plan 3 3B/3.5B	1,720 sf	16	Bldg. C = (Plan One, Plan Two, Plan Three, 2x Plan Four)	12
Plan 4 4B/3.5B	1,860 sf	31	Subtotal Three-Story Buildings	19
Subtotal		91 Units		
Total Multi-Family Dwelling Units		192	Total Buildings	40
Parking Matrix				
Parking Required 192 du x 2.33 = 448 spaces			Parking Provided	
			Garages    384 spaces	
			Open        80 spaces	
			Total 464 Spaces	