

Air Quality & Greenhouse Gas Assessment

Maverik Gas Station Project

Rocklin, California

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Attachment B – CalEEMod Output File for Greenhouse Gas Emissions

LIST OF ACRONYMS AND ABBREVIATIONS

1992 CO Plan	SCAQMD 1992 Federal Attainment Plan for Carbon Monoxide
AB	Assembly Bill
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CH ₄	Methane
City	City of Rocklin
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalents
DPM	Diesel particulate matter
EO	Executive Order
GHG	Greenhouse gas emissions
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
LOS	Level of service
µg/m ³	Micrograms per cubic meter
N ₂ O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen dioxide
NO _x	Nitrous oxides
O ₃	Ozone

LIST OF ACRONYMS AND ABBREVIATIONS

parts per million	ppm
PCAPCD	Placer County Air Pollution Control District
PM ₁₀	Coarse particulate matter
PM _{2.5}	Fine particulate matter
ppb	Parts per billion
Project	Maverik Gas Station Project
ROG	Reactive organic gases
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
SVAB	Sacramento Valley Air Basin
SVAQEPP	Sacramento Valley Air Quality Engineering and Enforcement Professionals
TACs	Toxic air contaminants
USEPA	U.S. Environment Protection Agency

1.0 INTRODUCTION

This report documents the results of an Air Quality and Greenhouse Gas (GHG) Emissions Impact Assessment completed for the Maverik Gas Station Project (Project), which includes the construction of a convenience store and gasoline dispensing station in the City of Rocklin (City), California. This assessment was prepared using methodologies and assumptions recommended in the rules and regulations of the Placer County Air Pollution Control District (PCAPCD 2019). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations. The purpose of this assessment is to estimate Project-generated criteria air pollutants and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment.

1.1 Project Location and Description

The Project site is located on the westerly corner of Sunset Boulevard and Lonetree Boulevard in the City of Rocklin, located in south Placer County. The site is generally bound by an existing office development to the north, an existing office development across Sunset Boulevard to the east, a partially developed retail site across Lonetree Boulevard to the south, and a vacant parcel to the west (Figure 1. *Project Location*). The Project site is flat, undeveloped land.

The Project proposes to construct a 5,637-square foot 24-hour convenience store and seven fuel dispensers (14 fueling positions) with an associated fueling canopy on a 1.94-acre portion of a vacant 5.14-acre parcel. The site will be accessible from Sunset Boulevard and Lonetree Boulevard.

The Project site has a City of Rocklin General Plan designation of Retail Commercial. The General Plan Retail Commercial designation is intended to provide areas for retail and service establishments intended to meet daily convenience needs of residential areas (City of Rocklin 2012).



Map Date: 12/8/2020
Photo (or Base) Source: Google Maps

Figure1. Project Location

2.0 AIR QUALITY

2.1 Air Quality Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the Sacramento Valley Air Basin (SVAB), which encompasses the Project site, pursuant to the regulatory authority of the Placer County Air Pollution Control District (PCAPCD).

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project area.

2.1.1 Sacramento Valley Air Basin

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. Rocklin lies in the SVAB, which is comprised of nine air districts. The SVAB is bounded by the Coastal and Diablo mountain ranges on the west, the Sierra Nevada to the east, and the San Joaquin Valley to the south. These mountain ranges reach heights in excess of 6,000 feet above mean sea level, with individual peaks rising much higher. The mountains form a substantial physical barrier to locally created pollution as well as to pollution transported northward on prevailing winds from the Sacramento metropolitan area (Sacramento Valley Air Quality Engineering and Enforcement Professionals [SVAQEEP] 2015).

The environmental conditions of Placer County are conducive to potentially adverse air quality conditions. The basin area traps pollutants between two mountain ranges to the east and the west. This problem is exacerbated by a temperature inversion layer that traps air at lower levels below an overlying layer of warmer air. Prevailing winds in the area are generally from the south and southwest. Sea breezes flow over the San Francisco Bay Area and into the Sacramento Valley, transporting pollutants from the large urban areas. Growth and urbanization in Placer County have also contributed to an increase in emissions.

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O₃), coarse particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

Table 2-1. Criteria Air Pollutants- Summary of Common Sources and Effects

Pollutant	Major Manmade Sources	Human Health & Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO ₂	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O ₃	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N ₂ O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM ₁₀ & PM _{2.5}	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO ₂	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association (CAPCOA 2013)

Carbon Monoxide

CO, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances (i.e., up to 600 feet or 185 meters) of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases

susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x , such as NO and NO_2 , attribute to the formation of O_3 and $\text{PM}_{2.5}$. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

Ozone

O_3 is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) or ROG and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NO_x forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

Particulate Matter

Particulate matter includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and small than or equal to 2.5 microns in diameter ($\text{PM}_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $\text{PM}_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x , sulfur oxides (SO_x) and VOCs. $\text{PM}_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $\text{PM}_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the U.S. Environmental Protection Agency (USEPA), some people are much more sensitive than others to breathing PM_{10} and $\text{PM}_{2.5}$. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM_{10} and

PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

Most recently, CARB identified diesel particulate matter (DPM) as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Out of the toxic compounds emitted from gasoline stations, such as proposed by the Project, benzene, ethylbenzene, and naphthalene have cancer toxicity values. However, benzene is the TAC which drives the risk, accounting for 87 percent of cancer risk from gasoline vapors (South Coast Air Quality Management District [SCAQMD] 2015). Furthermore, benzene constitutes more than three to four times the weight of gasoline than ethylbenzene and naphthalene, respectively (SCAQMD 2015). Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness.

Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract. Redness

and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes blood disorders because benzene specifically affects bone marrow, which produces blood cells. Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.

2.1.4 Ambient Air Quality

Ambient air quality at the Project site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The Lincoln - 2885 Moore Road air quality monitoring station (2885 Moore Road, Lincoln), located approximately 4.54 miles northwest of the Project site, monitors concentrations of O₃ and PM_{2.5}. The Roseville-N Sunrise Avenue air quality monitoring station (151 N Sunrise Avenue, Roseville), located approximately 4.9 miles south of the Project site, monitors concentrations of PM₁₀. These monitoring stations monitor the pollutants in nonattainment of air quality standards in the Project region. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the development area.

Table 2-2 summarizes the published data concerning O₃ and PM_{2.5} for the Lincoln - 2885 Moore Road air quality monitoring station and PM₁₀ for the Roseville-N Sunrise Avenue air quality monitoring station between 2017 and 2019 for each year that the monitoring data is provided. O₃, PM₁₀ and PM_{2.5} are the pollutant species most potentially affecting the Project region.

Table 2-2. Summary of Ambient Air Quality Data			
Pollutant Standards	2017	2018	2019
O₃ – Lincoln - 2885 Moore Road Station Monitoring Station			
Max 1-hour concentration (ppm)	*	0.070	0.086
Max 8-hour concentration (ppm) (state/federal)	* / *	0.059 / 0.058	0.076 / 0.075
Number of days above 1-hour standard (state/federal)	* / *	0 / 0	0 / 0
Number of days above 8-hour standard (state/federal)	* / 0	0 / 0	4 / 3
PM₁₀ – Roseville-N Sunrise Avenue Monitoring Station			
Max 24-hour concentration (µg/m ³) (state/federal)	65.8 / 66.0	211.3 / 202.2	63.1 / 63.1
Number of days above 24-hour standard (state/federal)	* / 0	* / 2.0	2.0 / 0
PM_{2.5} – Lincoln - 2885 Moore Road Monitoring Station			
Max 24-hour concentration (µg/m ³) (state/federal)	* / *	227.5 / *	35.7 / *
Number of days above federal 24-hour standard	*	*	*

Source: CARB 2020a

µg/m³ = micrograms per cubic meter; ppm = parts per million

* = Insufficient data available

The USEPA and CARB designate air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than O₃, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O₃, PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the Placer County portion of the SVAB is included in Table 2-3.

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal O₃ standards and is also a nonattainment area for the state standards for O₃ and PM₁₀ (CARB 2019).

Table 2-3. Attainment Status of Criteria Pollutants in the Placer County Portion of the SVAB		
Pollutant	State Designation	Federal Designation
O ₃	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Unclassified
PM _{2.5}	Unclassified	Unclassified/Attainment
CO	Unclassified	Unclassified/Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Unclassified/Attainment

Source: CARB 2019

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive land uses to the Project site include the Villas at Stanford Ranch Assisted Living Facility located approximately 1,127 feet east of the Project site boundary on West Stanford Ranch Road and a children’s day care located approximately 845 feet south of the Project on Sunset Boulevard.

2.2 Regulatory Framework

2.2.1 Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that carbon dioxide (CO₂) is an air pollutant covered by the CAA; however, no NAAQS have been established for CO₂.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the Placer County portion of the SVAB for the criteria pollutants.

2.2.2 State

California Clean Air Act

The California Clean Air Act (CCAA) allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California’s State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and

control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The *2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (including 2018 updates)*, the *PM₁₀ Implementation/Maintenance Plan and Re-Designation Request (2010)*, and *PM_{2.5} Implementation/Maintenance Plan and Re-designation Request for Sacramento PM_{2.5} Nonattainment Area (2013)* constitute the current SIP for the Placer County portion of the SVAB. These air quality planning documents present comprehensive strategies to reduce the O₃ precursor pollutants (ROG and NO_x) as well as PM emissions from stationary, area, mobile, and indirect sources.

Tanner Air Toxics Act & Air Toxics “Hot Spots” Information and Assessment Act

CARB’s Statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state’s mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics “Hot Spots” Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.3 Local

Placer County Air Pollution Control District

The PCAPCD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The PCAPCD responsibilities include preparing plans for the attainment of ambient air quality standards, adopting and enforcing air pollution rules, issuing permits for and inspecting stationary air pollution sources, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing state and federal programs and regulations. The PCAPCD has also adopted various rules and regulations that are designed to reduce and control pollutant emissions from project’s construction and operational activities. The following provisions applicable to the proposed Project are summarized as follows:

- **Rule 202 Visible Emissions:** A person shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three (3) in any one (1) hour which is: a.) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or b.) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in section (A) above.
- **Rule 205 Nuisance:** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to businesses or property.
- **Rule 213 Transfer of Gasoline Transfer into Stationary Storage Containers:** The provisions of this rule shall apply to the transfer of gasoline into any stationary storage container.
- **Rule 214 Transfer of Gasoline into Vehicle Fuel Tanks:** The provisions of this rule shall apply to the transfer of gasoline from any stationary storage tank into any motor vehicle fuel tank.
- **Rule 218 Architectural Coating:** To limit the quantity of volatile organic compounds in architectural coating supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.
- **Rule 228 Fugitive Dust:** To reduce the amount of particulate matter entrained in the ambient air, or discharge into the ambient air, as a result of anthropogenic (manmade) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.
- **Rule 502 New Source Review:** The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct for such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

City of Rocklin

The City of Rocklin General Plan contains policy provisions designed to protect the health and welfare of local residents, businesses, and industries by promoting development that is compatible with regional air quality standards and goals. A key policy in the current General Plan that relates to air quality include Policy 25, which calls for stationary and mobile source control measures affecting the City of Rocklin to be included in the CCAA SIP for Placer County through coordination with the PCAPCD.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

- 1) Conflict with or obstruct implementation of any 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- 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).

2.3.2 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by the PCAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Placer County. Operational air pollutant emissions were based on the Project site plans and the estimated traffic trip generation rates calculated by CalEEMod, which references the 9th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Additionally, gasoline vapor emissions are calculated based on emission factors obtained from the California Air Pollution Control Officers Association (CAPCOA).

2.3.3 Impact Analysis

Project Construction-Generated Criteria Air Quality Emissions

Construction Significance Analysis

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the proposed Project: operation of the construction vehicles (i.e., tractors, forklifts, pavers), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities.

Construction-generated emissions associated the proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development

projects, based on typical construction requirements. See Attachment A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the proposed Project are summarized in Table 2-4. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the PCAPCD's thresholds of significance.

Table 2-4. Construction-Related Emissions			
Construction Year	Pollutant (pounds per day)		
	ROG	NO_x	PM₁₀
Year 2021	3.95	40.53	20.25
Year 2022	3.42	28.60	1.70
<i>PCAPCD Potentially Significant Impact Threshold</i>	82	82	82
Exceed PCAPCD Threshold?	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.

Notes: Building construction, paving and painting assumed to occur simultaneously. Emissions account for the grading of 10 acres.

As shown in Table 2-6, emissions generated during Project construction would not exceed the PCAPCD's significance thresholds. Therefore, criteria pollutant emissions generated during Project construction would not 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.

Project Operations Criteria Air Quality Emissions

Operational Significance Analysis

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulatively considerable.

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM₁₀, PM_{2.5}, CO, and SO₂ as well as O₃ precursors such as ROG and NO_x. Project-generated increases in emissions would be predominantly associated with motor vehicle use. Operational-generated emissions associated with the proposed Project were calculated using CalEEMod. Predicted maximum annual operational-generated emissions of criteria air pollutants for the proposed Project are summarized in Table 2-5.

Table 2-5. Operational-Related Emissions			
Emission Source	Pollutant (pounds per day)		
	ROG	NO_x	PM₁₀
Summer Emissions			
Area	12.35	0.00	0.00
Energy	0.00	0.02	0.00
Mobile	3.39	17.18	2.94
Total	15.74	17.20	2.94
PCAPCD Significant Impact Threshold	55	55	82
Exceed PCAPCD Threshold?	No	No	No
Winter Emissions			
Area	12.35	0.00	0.00
Energy	0.00	0.02	0.00
Mobile	2.52	17.14	2.95
Total	14.87	17.16	2.95
PCAPCD Significant Impact Threshold	55	55	82
Exceed PCAPCD Threshold?	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.

Notes: Emission projections are predominately based on CalEEMod model defaults for Placer County. Mobile source emission data in CalEEMod is based on estimated traffic trip generation rates contained in the 9th Edition of the ITE Trip Generation Manual. Area source emissions include reactive organic gases (ROG) released from consumer products as well as gasoline vapor during dispensing activities. Gasoline vapor emissions are calculated based on an emission factor of 1.27 pounds of ROG per 1,000 gallons of gasoline dispensed (CAPCOA 1997) and the prediction of 3,500,000 gallons of gasoline dispensed by the Project annually $[(3,500,000 / 1,000) \times 1.27 = 4,445 \text{ pounds annually. } 4,445 / 365 = 12.17 \text{ pounds daily}]$.

As shown in Table 2-5, daily emissions associated with Project operations would not exceed the PCAPCD significance thresholds.

Conflict with PCAPCD Air Quality Plans

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously described, the PCAPCD is the agency responsible for enforcing many federal and state air quality requirements and for establishing air quality rules and regulations. The PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. As part of this effort, the PCAPCD has developed input to the SIP. The *2017 Sacramento Regional 2008 8-*

Hour Ozone Attainment and Reasonable Further Progress Plan (including 2018 updates), the PM₁₀ Implementation/Maintenance Plan and Re-Designation Request (2010), and PM_{2.5} Implementation/Maintenance Plan and Re-designation Request for Sacramento PM_{2.5} Nonattainment Area (2013) constitute the current SIP for the Placer County portion of the SVAB and include the PCAPCD's plans and control measures for attaining air quality standards. These air quality attainment plans are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards.

The SIP plans and control measures are based on information derived from projected growth in Placer County in order to project future emissions and then determine strategies and regulatory controls for the reduction of emissions. Growth projections are based on the general plans developed by Placer County and the incorporated cities in the county, including Rocklin. As such, projects that propose development consistent with the growth anticipated by the respective general plan of the jurisdiction in which the proposed development is located would be consistent with the SIP. In the event that a project would propose a development that is less dense than that associated with the general plan, the project would likewise be consistent with the SIP. If a project, however, proposes a development that is denser than that assumed in the general plan, the project may be in conflict with the SIP and could therefore result in a significant impact on air quality.

Growth projections for the City of Rocklin are based on the City of Rocklin General Plan. As such, projects in the City that propose development consistent with the growth anticipated by the City's General Plan would be consistent with PCAPCD's air quality planning efforts. The Project site is designated Retail Commercial by the City of Rocklin General Plan. The Retail Commercial designation is intended to provide areas for retail and service establishments intended to meet daily convenience needs of residential areas (General Plan). The Project's proposed uses would be consistent with this land use designation as the Project is proposing a convenience store and gas station located less than 0.5 miles from single-family and multi-family residences in the Project area.

Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive land uses to the Project site include the Villas at Stanford Ranch Assisted Living Facility located east of the Project site boundary approximately 1,127 feet distant and a children's day care located approximately 845 feet south of the Project.

A review of the Project site plan shows that the nearest gasoline dispenser, a source of benzene emissions, would be approximately 1,197 feet from the assisted living facility and 884 feet from the day care.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of DPM, ROG, NO_x, CO, PM₁₀ and PM_{2.5} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SVAB which encompasses the Project area is designated as a nonattainment area for federal O₃ and standards and is also a nonattainment area for the state standards for O₃ and PM₁₀ standards (CARB 2019). Thus, existing O₃ and PM₁₀ levels in the SVAB are at unhealthy levels during certain periods. However, as shown in Table 2-4 and Table 2-5, the Project would not exceed the PCAPCD significance thresholds for emissions.

The health effects associated with O₃ are generally associated with reduced lung function. Because the Project would not involve construction activities that would result in O₃ precursor emissions (ROG or NO_x) in excess of the PCAPCD thresholds, the Project is not anticipated to substantially contribute to regional O₃ concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, 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. The Project would not involve construction activities that would result in CO emissions in excess of the PCAPCD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM₁₀ and PM_{2.5}) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary toxic air contaminant (TAC) of concern. Based on the emission modeling conducted, the maximum onsite construction-related daily emissions of exhaust PM_{2.5}, considered a surrogate for DPM, would be 1.88 pounds per day during 2021 construction and 1.36 pound per day during 2022 construction (see Attachment A). PM_{2.5} exhaust is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., PM_{2.5}). Most PM_{2.5} derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. As with O₃ and NO_x, the Project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the PCAPCD's thresholds. Accordingly, the Project's PM₁₀ and PM_{2.5} emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, the Project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

Operational Air Contaminants

The Project site is proposing 14 fueling positions, which would be a source of gasoline vapors, including TACs such as benzene, methyl tertiary-butyl ether, toluene, and xylene. Benzene is the primary TAC associated with gas stations. Gasoline vapors are released during the filling of the stationary underground storage tanks and during the transfer from those underground tanks to individual vehicles.

The PCAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities. PCAPCD Rule 213, *Gasoline Transfer into Stationary Storage Containers*, prohibits the transfer or allowance of the transfer of gasoline into stationary tanks at a gasoline-dispensing facility unless a CARB-certified Phase I vapor recovery system is used; and PCAPCD Rule 214, *Transfer of Gasoline into Vehicle Fuel Tanks*, further prohibits the transfer or allowance of the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline-dispensing facility unless a CARB-certified Phase II vapor recovery system is used during each transfer. Vapor recovery systems collect gasoline vapors that would otherwise escape into the air during bulk fuel delivery (Phase I) or fuel storage and vehicle refueling (Phase II). Phase I vapor recovery system components include the couplers that connect tanker trucks to the underground tanks, spill containment drain valves, overfill prevention devices, and vent pressure/vacuum valves. Phase II vapor recovery system components include gasoline dispensers, nozzles, piping, breakaway, hoses, face plates, vapor processors, and system monitors.

Stationary sources having the potential to emit TACs, including gas stations, are required to obtain permits from the PCAPCD. Permits may be granted to these operations provided they are operated in accordance with applicable PCAPCD rules and regulations. PCAPCD's gasoline station permitting process provides for the review of gasoline TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced. PCAPCD's permitting procedures require substantial control of emissions and permits are not issued unless TAC risk screening or TAC risk assessment can show that risks are not significant. In addition, California has statewide limits on the benzene content in gasoline, which greatly reduces the toxic potential of gasoline emissions.

For the reasons described, the Project would not expose any receptors to substantial concentrations of air toxins.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance

from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SVAB is designated as in attainment. Detailed modeling of Project-specific CO “hot spots” is not necessary and thus this potential impact is addressed qualitatively.

A CO “hot spot” would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District’s (SCAQMD’s) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 AQMP can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD is the air pollution control officer for much of southern California. The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the Los Angeles, a CO “hot spot” analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Thus, there was no violation of CO standards.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD), the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

According to CalEEMod trip generation data, which is based on the 9th Edition of the ITE Trip Generation Manual, the Project is anticipated to generate approximately 2,360 average daily trips. The Project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, there is no likelihood of the Project traffic exceeding CO values.

Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Construction

During construction, the proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

Operations

The Project site could be considered a source of unpleasant odors by some given its proposed use as a gasoline dispensing station; however, as previously stated, PCAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities as articulated in PCAPCD Rule 213 and Rule 214. Adherence to these rules would ensure a substantial number of people are not adversely affected by operational odor emissions.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂ (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged

over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013).

Table 3-1. Greenhouse Gases

Greenhouse Gas	Description
CO ₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
CH ₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
N ₂ O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: ¹US EPA 2016a, ²USEPA 2016b, ³USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2020, CARB released the 2020 edition of the California GHG inventory covering calendar year 2018 emissions. In 2018, California emitted 425.3 million gross metric tons of CO₂e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2018, accounting for approximately 30 percent of total GHG emissions in the state. This sector was followed by the industrial sector (21 percent) and the electric power sector including both in-state and out-of-state sources (15 percent) (CARB 2020b). Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N₂O is also largely attributable to agricultural practices and soil management. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing CO₂ from the atmosphere.

3.2 Regulatory Framework

3.2.1 State

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlines measures to meet the 2020 GHG reduction goals. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by the end of 2020.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the state, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

3.2.2 Local

Placer County Air Pollution Control District

In October of 2016, the PCAPCD adopted GHG emission thresholds to assist the district in attaining the GHG reduction goals established by AB 32 and SB 32. The updated thresholds adopted bright-line numeric threshold emission level of 1,100 metric tons of CO₂e per year for operations of land use project and 10,000 metric tons of CO₂e per year for construction. Any project that fell below that would be found to have a less than significant impact on GHG emissions, and, thus, would not conflict with any state or regional GHG emission reduction goals. Projects that would result in emissions above the threshold would not necessarily result in substantial impacts, if certain efficiency matrix are met. The efficiency matrix is calculated on a per capita or square-foot basis.

3.3 Greenhouse Gas Emissions Impact Assessment

3.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

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

Placer County Air Pollution Control District Threshold

The Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 CCR 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence” (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA’s requirements for cumulative impact analysis (see CEQA Guidelines Section 15130(f)). As a note, the CEQA Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project’s incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a “water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions.” Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that “[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment.” The Supreme Court-reviewed study noted, “[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute

in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. On October 13, 2016, the PCAPCD adopted the bright-line numeric threshold of 1,100 metric tons of CO₂e per year for operations of land use projects and 10,000 metric tons of CO₂e per year for construction. For the purpose of this evaluation, the Project will be compared to the PCAPCD bright-line numeric threshold of 10,000 metric tons of CO₂e annually for construction and 1,100 metric tons of CO₂e annually for operations. If it is determined that the Project is estimated to exceed these thresholds, Project emissions will then be compared to the PCAPCD Efficiency Matrix and mitigation strategies suggested in the PCAPCD CEQA Guidelines. As noted in the academic study, the fact that small projects below a numeric bright line threshold are not subject to CEQA-based mitigation, does not mean such small projects do not help the state achieve its climate change goals because even small projects participate in or comply with non-CEQA-based GHG reduction programs (Crockett 2011).

Methodology

GHG-related impacts were assessed in accordance with methodologies recommended by the PCAPCD. Where GHG emission quantification was required, emissions were modeled using CalEEMod, version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Placer County. Operational air pollutant emissions were based on the Project site plans and the estimated traffic trip generation rates and distances calculated by CalEEMod, which is based on the 9th Edition of the ITE Trip Generation Manual.

3.3.2 Impact Analysis

Greenhouse Gas Emission Contribution Conflicting with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

Contribution of Greenhouse Gas Emissions

Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., backhoes, pavers, forklifts). Table 3-2 illustrates the specific construction generated GHG emissions that would result from construction of the Project.

As shown in Table 3-2, Project construction would result in the generation of approximately 606 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease.

Table 3-2. Construction-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/ Year)
Construction 2021	558
Construction 2022	48
Project Construction Total	606
<i>PCAPCD Construction Threshold</i>	<i>10,000</i>
Exceed PCAPCD Threshold?	No

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.

As shown in Table 3-2, Project construction would result in the generation of approximately 606 metric tons of CO₂e over the course of construction. Annual emissions would be generated at levels below the PCAQCD significance threshold. Once construction is complete, the generation of these GHG emissions would cease.

Operations

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in Table 3-3.

Table 3-3. Operational-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/ Year)
Area Source Emissions	0
Energy Source Emissions	31
Mobile Source Emissions	873
Solid Waste Emissions	10
Water Emissions	1
Total Emissions	915
<i>PCAPCD Screening Threshold</i>	<i>1,100</i>
Exceed PCAPCD Threshold?	No

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.

Notes: Emission projections are predominately based on CalEEMod model defaults for Placer County. Mobile source emission data in CalEEMod is based on estimated traffic trip generation rates contained in the 9th Edition of the ITE Trip Generation Manual.

As shown in Table 3-3 Project operations would result in the generation of 915 metric tons of CO₂e per year. The PCAPCD has a recommended screening threshold of 1,100 metric tons of CO₂e per year. As shown in Table 3-3, the proposed Project would not surpass the PCAPCD numeric, bright-line significance threshold. PCAPCD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. Compliance with such thresholds will be part of the solution to the cumulative GHG emissions problem, rather than hinder the state's ability to meet its goals of reduced statewide GHG emissions.

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LIST OF ATTACHMENTS

Attachment A – CalEEMod Output File for Air Quality Emissions

Attachment B – CalEEMod Output File for Greenhouse Gas Emissions

ATTACHMENT A

CalEEMod Output Files – Criteria Air Pollutants

Maverik Gas Station Project - Placer-Sacramento County, Summer

Maverik Gas Station Project

Placer-Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	5.64	1000sqft	1.71	5,637.00	0
Gasoline/Service Station	14.00	Pump	1.71	1,976.45	0
Parking Lot	44.00	Space	1.71	17,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage updated to match the project.

Construction Phase - Construction, paving and coating assumed to occur at the same time.

Vehicle Trips - Trips are generated from the gasoline station, not the convenience store.

Maverik Gas Station Project - Placer-Sacramento County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	PhaseEndDate	2/24/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	12/30/2021	1/28/2022
tblConstructionPhase	PhaseEndDate	2/11/2021	3/12/2021
tblConstructionPhase	PhaseEndDate	1/27/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	1/14/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	1/28/2022	3/13/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	3/13/2021
tblConstructionPhase	PhaseStartDate	1/15/2021	2/13/2021
tblConstructionPhase	PhaseStartDate	12/31/2021	3/13/2021
tblConstructionPhase	PhaseStartDate	1/1/2021	2/1/2021
tblLandUse	LandUseSquareFeet	5,640.00	5,637.00
tblLandUse	LotAcreage	0.13	1.71
tblLandUse	LotAcreage	0.05	1.71
tblLandUse	LotAcreage	0.40	1.71
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

Maverik Gas Station Project - Placer-Sacramento 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					
2021	3.9532	40.5315	33.8488	0.0560	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,377.7632	5,377.7632	1.3594	0.0000	5,411.7471
2022	3.4238	28.6050	33.4999	0.0559	0.2489	1.4608	1.7097	0.0666	1.3674	1.4340	0.0000	5,370.3708	5,370.3708	1.3537	0.0000	5,404.2123
Maximum	3.9532	40.5315	33.8488	0.0560	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,377.7632	5,377.7632	1.3594	0.0000	5,411.7471

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					
2021	3.9532	40.5315	33.8488	0.0560	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,377.7632	5,377.7632	1.3594	0.0000	5,411.7471
2022	3.4238	28.6050	33.4999	0.0559	0.2489	1.4608	1.7097	0.0666	1.3674	1.4340	0.0000	5,370.3708	5,370.3708	1.3537	0.0000	5,404.2123
Maximum	3.9532	40.5315	33.8488	0.0560	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,377.7632	5,377.7632	1.3594	0.0000	5,411.7471

[illegible]

Maverik Gas Station Project - Placer-Sacramento 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	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Energy	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295
Mobile	3.3981	17.1871	16.8603	0.0549	2.9027	0.0451	2.9478	0.7779	0.0423	0.8202		5,594.410 1	5,594.410 1	0.3750		5,603.785 8
Total	3.5890	17.2148	16.8900	0.0551	2.9027	0.0472	2.9500	0.7779	0.0444	0.8223		5,627.556 6	5,627.556 6	0.3757	6.1000e-004	5,637.130 1

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	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Energy	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295
Mobile	3.3981	17.1871	16.8603	0.0549	2.9027	0.0451	2.9478	0.7779	0.0423	0.8202		5,594.410 1	5,594.410 1	0.3750		5,603.785 8
Total	3.5890	17.2148	16.8900	0.0551	2.9027	0.0472	2.9500	0.7779	0.0444	0.8223		5,627.556 6	5,627.556 6	0.3757	6.1000e-004	5,637.130 1

Maverik Gas Station Project - Placer-Sacramento 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	2/1/2021	2/12/2021	5	10	
2	Grading	Grading	2/13/2021	3/12/2021	5	20	
3	Building Construction	Building Construction	3/13/2021	1/28/2022	5	230	
4	Paving	Paving	3/13/2021	1/28/2022	5	230	
5	Architectural Coating	Architectural Coating	3/13/2021	1/28/2022	5	230	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,938; Non-Residential Outdoor: 3,313; Striped Parking Area: 1,056 (Architectural Coating – sqft)

OffRoad Equipment

Maverik Gas Station Project - Placer-Sacramento County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
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

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	7	18.00	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
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.2 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0650	0.0344	0.4849	1.4300e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		142.1705	142.1705	3.2400e-003		142.2516
Total	0.0650	0.0344	0.4849	1.4300e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		142.1705	142.1705	3.2400e-003		142.2516

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.2 Site Preparation - 2021**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	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0650	0.0344	0.4849	1.4300e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		142.1705	142.1705	3.2400e-003		142.2516
Total	0.0650	0.0344	0.4849	1.4300e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		142.1705	142.1705	3.2400e-003		142.2516

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.3 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430
Total	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.3 Grading - 2021**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	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430
Total	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430

Maverik Gas Station Project - Placer-Sacramento County, Summer

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
Total	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

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	0.0120	0.4312	0.0755	1.1700e-003	0.0271	9.8000e-004	0.0281	7.8000e-003	9.4000e-004	8.7400e-003		122.4846	122.4846	5.3100e-003		122.6173
Worker	0.0361	0.0191	0.2694	7.9000e-004	0.0822	5.1000e-004	0.0827	0.0218	4.7000e-004	0.0223		78.9836	78.9836	1.8000e-003		79.0287
Total	0.0481	0.4503	0.3449	1.9600e-003	0.1092	1.4900e-003	0.1107	0.0296	1.4100e-003	0.0310		201.4682	201.4682	7.1100e-003		201.6460

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.4 Building Construction - 2021**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
Total	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

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	0.0120	0.4312	0.0755	1.1700e-003	0.0271	9.8000e-004	0.0281	7.8000e-003	9.4000e-004	8.7400e-003		122.4846	122.4846	5.3100e-003		122.6173
Worker	0.0361	0.0191	0.2694	7.9000e-004	0.0822	5.1000e-004	0.0827	0.0218	4.7000e-004	0.0223		78.9836	78.9836	1.8000e-003		79.0287
Total	0.0481	0.4503	0.3449	1.9600e-003	0.1092	1.4900e-003	0.1107	0.0296	1.4100e-003	0.0310		201.4682	201.4682	7.1100e-003		201.6460

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.4 Building Construction - 2022**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

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	0.0112	0.4095	0.0701	1.1600e-003	0.0271	8.4000e-004	0.0279	7.8000e-003	8.0000e-004	8.6000e-003		121.4942	121.4942	5.0200e-003		121.6196
Worker	0.0338	0.0172	0.2490	7.6000e-004	0.0822	5.0000e-004	0.0826	0.0218	4.6000e-004	0.0223		76.0869	76.0869	1.6200e-003		76.1274
Total	0.0450	0.4268	0.3191	1.9200e-003	0.1092	1.3400e-003	0.1106	0.0296	1.2600e-003	0.0309		197.5811	197.5811	6.6400e-003		197.7470

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.4 Building Construction - 2022**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

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	0.0112	0.4095	0.0701	1.1600e-003	0.0271	8.4000e-004	0.0279	7.8000e-003	8.0000e-004	8.6000e-003		121.4942	121.4942	5.0200e-003		121.6196
Worker	0.0338	0.0172	0.2490	7.6000e-004	0.0822	5.0000e-004	0.0826	0.0218	4.6000e-004	0.0223		76.0869	76.0869	1.6200e-003		76.1274
Total	0.0450	0.4268	0.3191	1.9200e-003	0.1092	1.3400e-003	0.1106	0.0296	1.2600e-003	0.0309		197.5811	197.5811	6.6400e-003		197.7470

Maverik Gas Station Project - Placer-Sacramento County, Summer

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	1.2556	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	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2750	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

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	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430
Total	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.5 Paving - 2021**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	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2750	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

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	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430
Total	0.0542	0.0287	0.4041	1.1900e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		118.4754	118.4754	2.7000e-003		118.5430

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.5 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1223	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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	0.0507	0.0258	0.3735	1.1500e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		114.1304	114.1304	2.4300e-003		114.1911
Total	0.0507	0.0258	0.3735	1.1500e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		114.1304	114.1304	2.4300e-003		114.1911

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.5 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1223	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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	0.0507	0.0258	0.3735	1.1500e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		114.1304	114.1304	2.4300e-003		114.1911
Total	0.0507	0.0258	0.3735	1.1500e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		114.1304	114.1304	2.4300e-003		114.1911

Maverik Gas Station Project - Placer-Sacramento County, Summer

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	0.2883					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
Total	0.5072	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

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	7.2200e-003	3.8300e-003	0.0539	1.6000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.7967	15.7967	3.6000e-004		15.8057
Total	7.2200e-003	3.8300e-003	0.0539	1.6000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.7967	15.7967	3.6000e-004		15.8057

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.6 Architectural Coating - 2021**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	0.2883					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
Total	0.5072	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

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	7.2200e-003	3.8300e-003	0.0539	1.6000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.7967	15.7967	3.6000e-004		15.8057
Total	7.2200e-003	3.8300e-003	0.0539	1.6000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.7967	15.7967	3.6000e-004		15.8057

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.6 Architectural Coating - 2022**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	0.2883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	0.4929	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

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	6.7600e-003	3.4400e-003	0.0498	1.5000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.2174	15.2174	3.2000e-004		15.2255
Total	6.7600e-003	3.4400e-003	0.0498	1.5000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.2174	15.2174	3.2000e-004		15.2255

Maverik Gas Station Project - Placer-Sacramento County, Summer

3.6 Architectural Coating - 2022**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	0.2883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	0.4929	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

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	6.7600e-003	3.4400e-003	0.0498	1.5000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.2174	15.2174	3.2000e-004		15.2255
Total	6.7600e-003	3.4400e-003	0.0498	1.5000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		15.2174	15.2174	3.2000e-004		15.2255

4.0 Operational Detail - Mobile

Maverik Gas Station Project - Placer-Sacramento 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	3.3981	17.1871	16.8603	0.0549	2.9027	0.0451	2.9478	0.7779	0.0423	0.8202		5,594.410 1	5,594.410 1	0.3750		5,603.785 8
Unmitigated	3.3981	17.1871	16.8603	0.0549	2.9027	0.0451	2.9478	0.7779	0.0423	0.8202		5,594.410 1	5,594.410 1	0.3750		5,603.785 8

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Gasoline/Service Station	2,359.84	2,359.84	2,359.84	1,359,665	1,359,665
Parking Lot	0.00	0.00	0.00		
Total	2,359.84	2,359.84	2,359.84	1,359,665	1,359,665

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
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Maverik Gas Station Project - Placer-Sacramento County, Summer

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142
Gasoline/Service Station	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142
Parking Lot	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142

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	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295
NaturalGas Unmitigated	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295

Maverik Gas Station Project - Placer-Sacramento 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					
Convenience Market (24 Hour)	180.693	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.2580	21.2580	4.1000e-004	3.9000e-004	21.3843
Gasoline/Service Station	100.934	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8746	11.8746	2.3000e-004	2.2000e-004	11.9452
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
Total		3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295

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					
Convenience Market (24 Hour)	0.180693	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.2580	21.2580	4.1000e-004	3.9000e-004	21.3843
Gasoline/Service Station	0.100934	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8746	11.8746	2.3000e-004	2.2000e-004	11.9452
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
Total		3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295

6.0 Area Detail

Maverik Gas Station Project - Placer-Sacramento County, Summer

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	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Unmitigated	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149

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	0.0182					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1000e-004	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Total	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149

Maverik Gas Station Project - Placer-Sacramento 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	0.0182					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1000e-004	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Total	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149

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**

Maverik Gas Station Project - Placer-Sacramento 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

Maverik Gas Station Project - Placer-Sacramento County, Winter

Maverik Gas Station Project

Placer-Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	5.64	1000sqft	1.71	5,637.00	0
Gasoline/Service Station	14.00	Pump	1.71	1,976.45	0
Parking Lot	44.00	Space	1.71	17,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage updated to match the project.

Construction Phase - Construction, paving and coating assumed to occur at the same time.

Vehicle Trips - Trips are generated from the gasoline station, not the convenience store.

Maverik Gas Station Project - Placer-Sacramento County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	PhaseEndDate	2/24/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	12/30/2021	1/28/2022
tblConstructionPhase	PhaseEndDate	2/11/2021	3/12/2021
tblConstructionPhase	PhaseEndDate	1/27/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	1/14/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	1/28/2022	3/13/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	3/13/2021
tblConstructionPhase	PhaseStartDate	1/15/2021	2/13/2021
tblConstructionPhase	PhaseStartDate	12/31/2021	3/13/2021
tblConstructionPhase	PhaseStartDate	1/1/2021	2/1/2021
tblLandUse	LandUseSquareFeet	5,640.00	5,637.00
tblLandUse	LotAcreage	0.13	1.71
tblLandUse	LotAcreage	0.05	1.71
tblLandUse	LotAcreage	0.40	1.71
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

Maverik Gas Station Project - Placer-Sacramento 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					
2021	3.9511	40.5402	33.7861	0.0557	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,350.2284	5,350.2284	1.3596	0.0000	5,384.2186
2022	3.4218	28.6189	33.4384	0.0557	0.2489	1.4609	1.7097	0.0666	1.3674	1.4341	0.0000	5,343.7007	5,343.7007	1.3539	0.0000	5,377.5485
Maximum	3.9511	40.5402	33.7861	0.0557	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,350.2284	5,350.2284	1.3596	0.0000	5,384.2186

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					
2021	3.9511	40.5402	33.7861	0.0557	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,350.2284	5,350.2284	1.3596	0.0000	5,384.2186
2022	3.4218	28.6189	33.4384	0.0557	0.2489	1.4609	1.7097	0.0666	1.3674	1.4341	0.0000	5,343.7007	5,343.7007	1.3539	0.0000	5,377.5485
Maximum	3.9511	40.5402	33.7861	0.0557	18.2141	2.0454	20.2595	9.9699	1.8818	11.8516	0.0000	5,350.2284	5,350.2284	1.3596	0.0000	5,384.2186

[illegible]

Maverik Gas Station Project - Placer-Sacramento 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	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Energy	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295
Mobile	2.5202	17.1478	20.1106	0.0501	2.9027	0.0476	2.9503	0.7779	0.0446	0.8226		5,097.3428	5,097.3428	0.4245		5,107.9548
Total	2.7112	17.1755	20.1403	0.0503	2.9027	0.0497	2.9524	0.7779	0.0468	0.8247		5,130.4894	5,130.4894	0.4252	6.1000e-004	5,141.2991

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	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Energy	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295
Mobile	2.5202	17.1478	20.1106	0.0501	2.9027	0.0476	2.9503	0.7779	0.0446	0.8226		5,097.3428	5,097.3428	0.4245		5,107.9548
Total	2.7112	17.1755	20.1403	0.0503	2.9027	0.0497	2.9524	0.7779	0.0468	0.8247		5,130.4894	5,130.4894	0.4252	6.1000e-004	5,141.2991

Maverik Gas Station Project - Placer-Sacramento 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	2/1/2021	2/12/2021	5	10	
2	Grading	Grading	2/13/2021	3/12/2021	5	20	
3	Building Construction	Building Construction	3/13/2021	1/28/2022	5	230	
4	Paving	Paving	3/13/2021	1/28/2022	5	230	
5	Architectural Coating	Architectural Coating	3/13/2021	1/28/2022	5	230	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,938; Non-Residential Outdoor: 3,313; Striped Parking Area: 1,056 (Architectural Coating – sqft)

OffRoad Equipment

Maverik Gas Station Project - Placer-Sacramento County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
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

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	7	18.00	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
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.2 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0629	0.0431	0.4319	1.2700e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		126.5740	126.5740	2.9400e-003		126.6474
Total	0.0629	0.0431	0.4319	1.2700e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		126.5740	126.5740	2.9400e-003		126.6474

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.2 Site Preparation - 2021**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	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0629	0.0431	0.4319	1.2700e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		126.5740	126.5740	2.9400e-003		126.6474
Total	0.0629	0.0431	0.4319	1.2700e-003	0.1479	9.1000e-004	0.1488	0.0392	8.4000e-004	0.0401		126.5740	126.5740	2.9400e-003		126.6474

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.3 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395
Total	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.3 Grading - 2021**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	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395
Total	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395

Maverik Gas Station Project - Placer-Sacramento County, Winter

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
Total	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

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	0.0128	0.4342	0.0923	1.1300e-003	0.0271	1.0300e-003	0.0281	7.8000e-003	9.8000e-004	8.7800e-003		118.3446	118.3446	6.0200e-003		118.4950
Worker	0.0350	0.0240	0.2399	7.1000e-004	0.0822	5.1000e-004	0.0827	0.0218	4.7000e-004	0.0223		70.3189	70.3189	1.6300e-003		70.3597
Total	0.0478	0.4581	0.3322	1.8400e-003	0.1092	1.5400e-003	0.1108	0.0296	1.4500e-003	0.0310		188.6635	188.6635	7.6500e-003		188.8547

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.4 Building Construction - 2021**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
Total	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

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	0.0128	0.4342	0.0923	1.1300e-003	0.0271	1.0300e-003	0.0281	7.8000e-003	9.8000e-004	8.7800e-003		118.3446	118.3446	6.0200e-003		118.4950
Worker	0.0350	0.0240	0.2399	7.1000e-004	0.0822	5.1000e-004	0.0827	0.0218	4.7000e-004	0.0223		70.3189	70.3189	1.6300e-003		70.3597
Total	0.0478	0.4581	0.3322	1.8400e-003	0.1092	1.5400e-003	0.1108	0.0296	1.4500e-003	0.0310		188.6635	188.6635	7.6500e-003		188.8547

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.4 Building Construction - 2022**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

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	0.0119	0.4117	0.0858	1.1200e-003	0.0271	8.8000e-004	0.0280	7.8000e-003	8.4000e-004	8.6400e-003		117.3477	117.3477	5.6900e-003		117.4900
Worker	0.0328	0.0216	0.2204	6.8000e-004	0.0822	5.0000e-004	0.0826	0.0218	4.6000e-004	0.0223		67.7449	67.7449	1.4600e-003		67.7814
Total	0.0447	0.4333	0.3062	1.8000e-003	0.1092	1.3800e-003	0.1106	0.0296	1.3000e-003	0.0309		185.0925	185.0925	7.1500e-003		185.2714

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.4 Building Construction - 2022**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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

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	0.0119	0.4117	0.0858	1.1200e-003	0.0271	8.8000e-004	0.0280	7.8000e-003	8.4000e-004	8.6400e-003		117.3477	117.3477	5.6900e-003		117.4900
Worker	0.0328	0.0216	0.2204	6.8000e-004	0.0822	5.0000e-004	0.0826	0.0218	4.6000e-004	0.0223		67.7449	67.7449	1.4600e-003		67.7814
Total	0.0447	0.4333	0.3062	1.8000e-003	0.1092	1.3800e-003	0.1106	0.0296	1.3000e-003	0.0309		185.0925	185.0925	7.1500e-003		185.2714

Maverik Gas Station Project - Placer-Sacramento County, Winter

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	1.2556	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	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2750	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

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	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395
Total	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.5 Paving - 2021**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	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2750	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

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	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395
Total	0.0525	0.0360	0.3599	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4783	105.4783	2.4500e-003		105.5395

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.5 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1223	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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	0.0492	0.0323	0.3306	1.0200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		101.6173	101.6173	2.1900e-003		101.6721
Total	0.0492	0.0323	0.3306	1.0200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		101.6173	101.6173	2.1900e-003		101.6721

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.5 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0195					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1223	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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	0.0492	0.0323	0.3306	1.0200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		101.6173	101.6173	2.1900e-003		101.6721
Total	0.0492	0.0323	0.3306	1.0200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		101.6173	101.6173	2.1900e-003		101.6721

Maverik Gas Station Project - Placer-Sacramento County, Winter

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	0.2883					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
Total	0.5072	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

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	6.9900e-003	4.7900e-003	0.0480	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		14.0638	14.0638	3.3000e-004		14.0719
Total	6.9900e-003	4.7900e-003	0.0480	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		14.0638	14.0638	3.3000e-004		14.0719

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.6 Architectural Coating - 2021**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	0.2883					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
Total	0.5072	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

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	6.9900e-003	4.7900e-003	0.0480	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		14.0638	14.0638	3.3000e-004		14.0719
Total	6.9900e-003	4.7900e-003	0.0480	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		14.0638	14.0638	3.3000e-004		14.0719

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.6 Architectural Coating - 2022**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	0.2883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	0.4929	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

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	6.5600e-003	4.3100e-003	0.0441	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		13.5490	13.5490	2.9000e-004		13.5563
Total	6.5600e-003	4.3100e-003	0.0441	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		13.5490	13.5490	2.9000e-004		13.5563

Maverik Gas Station Project - Placer-Sacramento County, Winter

3.6 Architectural Coating - 2022**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	0.2883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	0.4929	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

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	6.5600e-003	4.3100e-003	0.0441	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		13.5490	13.5490	2.9000e-004		13.5563
Total	6.5600e-003	4.3100e-003	0.0441	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		13.5490	13.5490	2.9000e-004		13.5563

4.0 Operational Detail - Mobile

Maverik Gas Station Project - Placer-Sacramento 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	2.5202	17.1478	20.1106	0.0501	2.9027	0.0476	2.9503	0.7779	0.0446	0.8226		5,097.3428	5,097.3428	0.4245		5,107.9548
Unmitigated	2.5202	17.1478	20.1106	0.0501	2.9027	0.0476	2.9503	0.7779	0.0446	0.8226		5,097.3428	5,097.3428	0.4245		5,107.9548

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Gasoline/Service Station	2,359.84	2,359.84	2,359.84	1,359,665	1,359,665
Parking Lot	0.00	0.00	0.00		
Total	2,359.84	2,359.84	2,359.84	1,359,665	1,359,665

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
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Maverik Gas Station Project - Placer-Sacramento County, Winter

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142
Gasoline/Service Station	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142
Parking Lot	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142

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	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295
NaturalGas Unmitigated	3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295

Maverik Gas Station Project - Placer-Sacramento 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					
Convenience Market (24 Hour)	180.693	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.2580	21.2580	4.1000e-004	3.9000e-004	21.3843
Gasoline/Service Station	100.934	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8746	11.8746	2.3000e-004	2.2000e-004	11.9452
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
Total		3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295

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					
Convenience Market (24 Hour)	0.180693	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.2580	21.2580	4.1000e-004	3.9000e-004	21.3843
Gasoline/Service Station	0.100934	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8746	11.8746	2.3000e-004	2.2000e-004	11.9452
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
Total		3.0400e-003	0.0276	0.0232	1.7000e-004		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003		33.1326	33.1326	6.4000e-004	6.1000e-004	33.3295

6.0 Area Detail

Maverik Gas Station Project - Placer-Sacramento County, Winter

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	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Unmitigated	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149

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	0.0182					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1000e-004	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Total	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149

Maverik Gas Station Project - Placer-Sacramento 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	0.0182					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1000e-004	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149
Total	0.1879	6.0000e-005	6.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0139	0.0139	4.0000e-005		0.0149

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**

Maverik Gas Station Project - Placer-Sacramento 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

CalEEMod Output Files – Greenhouse Gas Emissions

Maverik Gas Station Project - Placer-Sacramento County, Annual

Maverik Gas Station Project

Placer-Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	5.64	1000sqft	1.71	5,637.00	0
Gasoline/Service Station	14.00	Pump	1.71	1,976.45	0
Parking Lot	44.00	Space	1.71	17,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage updated to match the project.

Construction Phase - Construction, paving and coating assumed to occur at the same time.

Vehicle Trips - Trips are generated from the gasoline station, not the convenience store.

Maverik Gas Station Project - Placer-Sacramento County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	PhaseEndDate	2/24/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	12/30/2021	1/28/2022
tblConstructionPhase	PhaseEndDate	2/11/2021	3/12/2021
tblConstructionPhase	PhaseEndDate	1/27/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	1/14/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	1/28/2022	3/13/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	3/13/2021
tblConstructionPhase	PhaseStartDate	1/15/2021	2/13/2021
tblConstructionPhase	PhaseStartDate	12/31/2021	3/13/2021
tblConstructionPhase	PhaseStartDate	1/1/2021	2/1/2021
tblLandUse	LandUseSquareFeet	5,640.00	5,637.00
tblLandUse	LotAcreage	0.13	1.71
tblLandUse	LotAcreage	0.05	1.71
tblLandUse	LotAcreage	0.40	1.71
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

Maverik Gas Station Project - Placer-Sacramento 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					
2021	0.4403	3.8496	3.8159	6.3600e-003	0.1827	0.2038	0.3865	0.0906	0.1903	0.2809	0.0000	554.6567	554.6567	0.1433	0.0000	558.2403
2022	0.0341	0.2862	0.3343	5.6000e-004	2.3800e-003	0.0146	0.0170	6.4000e-004	0.0137	0.0143	0.0000	48.5407	48.5407	0.0123	0.0000	48.8477
Maximum	0.4403	3.8496	3.8159	6.3600e-003	0.1827	0.2038	0.3865	0.0906	0.1903	0.2809	0.0000	554.6567	554.6567	0.1433	0.0000	558.2403

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					
2021	0.4403	3.8496	3.8159	6.3600e-003	0.1827	0.2038	0.3865	0.0906	0.1903	0.2809	0.0000	554.6561	554.6561	0.1433	0.0000	558.2397
2022	0.0341	0.2862	0.3343	5.6000e-004	2.3800e-003	0.0146	0.0170	6.4000e-004	0.0137	0.0143	0.0000	48.5407	48.5407	0.0123	0.0000	48.8476
Maximum	0.4403	3.8496	3.8159	6.3600e-003	0.1827	0.2038	0.3865	0.0906	0.1903	0.2809	0.0000	554.6561	554.6561	0.1433	0.0000	558.2397

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-4-2020	3-3-2021	0.3747	0.3747
2	3-4-2021	6-3-2021	1.1589	1.1589
3	6-4-2021	9-3-2021	1.1879	1.1879
4	9-4-2021	12-3-2021	1.1753	1.1753
5	12-4-2021	3-3-2022	0.6821	0.6821
		Highest	1.1879	1.1879

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0342	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003
Energy	5.5000e-004	5.0400e-003	4.2300e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	31.4701	31.4701	1.2800e-003	3.4000e-004	31.6045
Mobile	0.4817	3.1365	3.2681	9.4300e-003	0.5055	8.3900e-003	0.5139	0.1360	7.8700e-003	0.1439	0.0000	871.4098	871.4098	0.0654	0.0000	873.0449
Waste						0.0000	0.0000		0.0000	0.0000	4.2060	0.0000	4.2060	0.2486	0.0000	10.4201
Water						0.0000	0.0000		0.0000	0.0000	0.1620	1.1227	1.2847	0.0167	4.0000e-004	1.8223
Total	0.5165	3.1415	3.2729	9.4600e-003	0.5055	8.7700e-003	0.5143	0.1360	8.2500e-003	0.1442	4.3680	904.0037	908.3717	0.3319	7.4000e-004	916.8930

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0342	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003
Energy	5.5000e-004	5.0400e-003	4.2300e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	31.4701	31.4701	1.2800e-003	3.4000e-004	31.6045
Mobile	0.4817	3.1365	3.2681	9.4300e-003	0.5055	8.3900e-003	0.5139	0.1360	7.8700e-003	0.1439	0.0000	871.4098	871.4098	0.0654	0.0000	873.0449
Waste						0.0000	0.0000		0.0000	0.0000	4.2060	0.0000	4.2060	0.2486	0.0000	10.4201
Water						0.0000	0.0000		0.0000	0.0000	0.1620	1.1227	1.2847	0.0167	4.0000e-004	1.8223
Total	0.5165	3.1415	3.2729	9.4600e-003	0.5055	8.7700e-003	0.5143	0.1360	8.2500e-003	0.1442	4.3680	904.0037	908.3717	0.3319	7.4000e-004	916.8930

	ROG	NOx	CO	SO2	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**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2021	2/12/2021	5	10	
2	Grading	Grading	2/13/2021	3/12/2021	5	20	
3	Building Construction	Building Construction	3/13/2021	1/28/2022	5	230	
4	Paving	Paving	3/13/2021	1/28/2022	5	230	
5	Architectural Coating	Architectural Coating	3/13/2021	1/28/2022	5	230	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,938; Non-Residential Outdoor: 3,313; Striped Parking Area: 1,056 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
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
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

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	7	18.00	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
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Site Preparation - 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					
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	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e-004	0.0903	0.0102	0.1006	0.0497	9.4000e-003	0.0591	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530

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	2.9000e-004	2.0000e-004	2.1400e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5886	0.5886	1.0000e-005	0.0000	0.5889
Total	2.9000e-004	2.0000e-004	2.1400e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5886	0.5886	1.0000e-005	0.0000	0.5889

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3.2 Site Preparation - 2021**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	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e-004	0.0903	0.0102	0.1006	0.0497	9.4000e-003	0.0591	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530

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	2.9000e-004	2.0000e-004	2.1400e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5886	0.5886	1.0000e-005	0.0000	0.5889
Total	2.9000e-004	2.0000e-004	2.1400e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5886	0.5886	1.0000e-005	0.0000	0.5889

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3.3 Grading - 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					
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	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	0.0229	0.2474	0.1586	3.0000e-004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644

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	4.8000e-004	3.3000e-004	3.5600e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9809	0.9809	2.0000e-005	0.0000	0.9815
Total	4.8000e-004	3.3000e-004	3.5600e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9809	0.9809	2.0000e-005	0.0000	0.9815

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3.3 Grading - 2021**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	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	0.0229	0.2474	0.1586	3.0000e-004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643

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	4.8000e-004	3.3000e-004	3.5600e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9809	0.9809	2.0000e-005	0.0000	0.9815
Total	4.8000e-004	3.3000e-004	3.5600e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9809	0.9809	2.0000e-005	0.0000	0.9815

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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	0.1996	1.8304	1.7404	2.8300e-003		0.1007	0.1007		0.0946	0.0946	0.0000	243.2191	243.2191	0.0587	0.0000	244.6861
Total	0.1996	1.8304	1.7404	2.8300e-003		0.1007	0.1007		0.0946	0.0946	0.0000	243.2191	243.2191	0.0587	0.0000	244.6861

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	1.3000e-003	0.0459	8.7600e-003	1.2000e-004	2.7400e-003	1.0000e-004	2.8500e-003	7.9000e-004	1.0000e-004	8.9000e-004	0.0000	11.5015	11.5015	5.4000e-004	0.0000	11.5149
Worker	3.3900e-003	2.2800e-003	0.0249	8.0000e-005	8.2500e-003	5.0000e-005	8.3000e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	6.8664	6.8664	1.6000e-004	0.0000	6.8703
Total	4.6900e-003	0.0481	0.0337	2.0000e-004	0.0110	1.5000e-004	0.0112	2.9800e-003	1.5000e-004	3.1300e-003	0.0000	18.3679	18.3679	7.0000e-004	0.0000	18.3853

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3.4 Building Construction - 2021**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	0.1996	1.8304	1.7404	2.8300e-003		0.1007	0.1007		0.0946	0.0946	0.0000	243.2189	243.2189	0.0587	0.0000	244.6858
Total	0.1996	1.8304	1.7404	2.8300e-003		0.1007	0.1007		0.0946	0.0946	0.0000	243.2189	243.2189	0.0587	0.0000	244.6858

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	1.3000e-003	0.0459	8.7600e-003	1.2000e-004	2.7400e-003	1.0000e-004	2.8500e-003	7.9000e-004	1.0000e-004	8.9000e-004	0.0000	11.5015	11.5015	5.4000e-004	0.0000	11.5149
Worker	3.3900e-003	2.2800e-003	0.0249	8.0000e-005	8.2500e-003	5.0000e-005	8.3000e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	6.8664	6.8664	1.6000e-004	0.0000	6.8703
Total	4.6900e-003	0.0481	0.0337	2.0000e-004	0.0110	1.5000e-004	0.0112	2.9800e-003	1.5000e-004	3.1300e-003	0.0000	18.3679	18.3679	7.0000e-004	0.0000	18.3853

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3.4 Building Construction - 2022**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	0.0171	0.1562	0.1636	2.7000e-004		8.0900e-003	8.0900e-003		7.6100e-003	7.6100e-003	0.0000	23.1725	23.1725	5.5500e-003	0.0000	23.3113
Total	0.0171	0.1562	0.1636	2.7000e-004		8.0900e-003	8.0900e-003		7.6100e-003	7.6100e-003	0.0000	23.1725	23.1725	5.5500e-003	0.0000	23.3113

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	1.1000e-004	4.1400e-003	7.7000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.7000e-004	8.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0864	1.0864	5.0000e-005	0.0000	1.0876
Worker	3.0000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6300	0.6300	1.0000e-005	0.0000	0.6303
Total	4.1000e-004	4.3400e-003	2.9600e-003	2.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	1.7164	1.7164	6.0000e-005	0.0000	1.7179

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3.4 Building Construction - 2022**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	0.0171	0.1562	0.1636	2.7000e-004		8.0900e-003	8.0900e-003		7.6100e-003	7.6100e-003	0.0000	23.1725	23.1725	5.5500e-003	0.0000	23.3113
Total	0.0171	0.1562	0.1636	2.7000e-004		8.0900e-003	8.0900e-003		7.6100e-003	7.6100e-003	0.0000	23.1725	23.1725	5.5500e-003	0.0000	23.3113

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	1.1000e-004	4.1400e-003	7.7000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.7000e-004	8.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0864	1.0864	5.0000e-005	0.0000	1.0876
Worker	3.0000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6300	0.6300	1.0000e-005	0.0000	0.6303
Total	4.1000e-004	4.3400e-003	2.9600e-003	2.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	1.7164	1.7164	6.0000e-005	0.0000	1.7179

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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	0.1318	1.3565	1.5386	2.3900e-003		0.0712	0.0712		0.0655	0.0655	0.0000	210.2465	210.2465	0.0680	0.0000	211.9465
Paving	2.0500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1339	1.3565	1.5386	2.3900e-003		0.0712	0.0712		0.0655	0.0655	0.0000	210.2465	210.2465	0.0680	0.0000	211.9465

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	5.0800e-003	3.4200e-003	0.0374	1.1000e-004	0.0124	8.0000e-005	0.0125	3.2900e-003	7.0000e-005	3.3700e-003	0.0000	10.2996	10.2996	2.4000e-004	0.0000	10.3055
Total	5.0800e-003	3.4200e-003	0.0374	1.1000e-004	0.0124	8.0000e-005	0.0125	3.2900e-003	7.0000e-005	3.3700e-003	0.0000	10.2996	10.2996	2.4000e-004	0.0000	10.3055

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3.5 Paving - 2021**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	0.1318	1.3565	1.5386	2.3900e-003		0.0712	0.0712		0.0655	0.0655	0.0000	210.2463	210.2463	0.0680	0.0000	211.9462
Paving	2.0500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1339	1.3565	1.5386	2.3900e-003		0.0712	0.0712		0.0655	0.0655	0.0000	210.2463	210.2463	0.0680	0.0000	211.9462

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	5.0800e-003	3.4200e-003	0.0374	1.1000e-004	0.0124	8.0000e-005	0.0125	3.2900e-003	7.0000e-005	3.3700e-003	0.0000	10.2996	10.2996	2.4000e-004	0.0000	10.3055
Total	5.0800e-003	3.4200e-003	0.0374	1.1000e-004	0.0124	8.0000e-005	0.0125	3.2900e-003	7.0000e-005	3.3700e-003	0.0000	10.2996	10.2996	2.4000e-004	0.0000	10.3055

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3.5 Paving - 2022**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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	1.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0112	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895

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	4.5000e-004	2.9000e-004	3.2800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9450	0.9450	2.0000e-005	0.0000	0.9455
Total	4.5000e-004	2.9000e-004	3.2800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9450	0.9450	2.0000e-005	0.0000	0.9455

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3.5 Paving - 2022**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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	1.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0112	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895

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	4.5000e-004	2.9000e-004	3.2800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9450	0.9450	2.0000e-005	0.0000	0.9455
Total	4.5000e-004	2.9000e-004	3.2800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9450	0.9450	2.0000e-005	0.0000	0.9455

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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	0.0303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0230	0.1603	0.1908	3.1000e-004		9.8800e-003	9.8800e-003		9.8800e-003	9.8800e-003	0.0000	26.8092	26.8092	1.8400e-003	0.0000	26.8552
Total	0.0533	0.1603	0.1908	3.1000e-004		9.8800e-003	9.8800e-003		9.8800e-003	9.8800e-003	0.0000	26.8092	26.8092	1.8400e-003	0.0000	26.8552

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	6.8000e-004	4.6000e-004	4.9900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3733	1.3733	3.0000e-005	0.0000	1.3741
Total	6.8000e-004	4.6000e-004	4.9900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3733	1.3733	3.0000e-005	0.0000	1.3741

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3.6 Architectural Coating - 2021**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	0.0303					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0230	0.1603	0.1908	3.1000e-004		9.8800e-003	9.8800e-003		9.8800e-003	9.8800e-003	0.0000	26.8091	26.8091	1.8400e-003	0.0000	26.8551
Total	0.0533	0.1603	0.1908	3.1000e-004		9.8800e-003	9.8800e-003		9.8800e-003	9.8800e-003	0.0000	26.8091	26.8091	1.8400e-003	0.0000	26.8551

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	6.8000e-004	4.6000e-004	4.9900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3733	1.3733	3.0000e-005	0.0000	1.3741
Total	6.8000e-004	4.6000e-004	4.9900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3733	1.3733	3.0000e-005	0.0000	1.3741

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3.6 Architectural Coating - 2022**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	2.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	4.9300e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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	6.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1260	0.1260	0.0000	0.0000	0.1261
Total	6.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1260	0.1260	0.0000	0.0000	0.1261

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3.6 Architectural Coating - 2022**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	2.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	4.9300e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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	6.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1260	0.1260	0.0000	0.0000	0.1261
Total	6.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1260	0.1260	0.0000	0.0000	0.1261

4.0 Operational Detail - Mobile

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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	0.4817	3.1365	3.2681	9.4300e-003	0.5055	8.3900e-003	0.5139	0.1360	7.8700e-003	0.1439	0.0000	871.4098	871.4098	0.0654	0.0000	873.0449
Unmitigated	0.4817	3.1365	3.2681	9.4300e-003	0.5055	8.3900e-003	0.5139	0.1360	7.8700e-003	0.1439	0.0000	871.4098	871.4098	0.0654	0.0000	873.0449

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Gasoline/Service Station	2,359.84	2,359.84	2,359.84	1,359,665	1,359,665
Parking Lot	0.00	0.00	0.00		
Total	2,359.84	2,359.84	2,359.84	1,359,665	1,359,665

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
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142
Gasoline/Service Station	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142
Parking Lot	0.499712	0.039404	0.220288	0.124864	0.021993	0.006021	0.030614	0.046741	0.001428	0.001188	0.005840	0.000765	0.001142

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	25.9846	25.9846	1.1700e-003	2.4000e-004	26.0864
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25.9846	25.9846	1.1700e-003	2.4000e-004	26.0864
NaturalGas Mitigated	5.5000e-004	5.0400e-003	4.2300e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	5.4855	5.4855	1.1000e-004	1.0000e-004	5.5181
NaturalGas Unmitigated	5.5000e-004	5.0400e-003	4.2300e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	5.4855	5.4855	1.1000e-004	1.0000e-004	5.5181

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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					
Convenience Market (24 Hour)	65952.9	3.6000e-004	3.2300e-003	2.7200e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5195	3.5195	7.0000e-005	6.0000e-005	3.5404
Gasoline/Service Station	36841	2.0000e-004	1.8100e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9660	1.9660	4.0000e-005	4.0000e-005	1.9777
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
Total		5.6000e-004	5.0400e-003	4.2400e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.4855	5.4855	1.1000e-004	1.0000e-004	5.5181

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					
Convenience Market (24 Hour)	65952.9	3.6000e-004	3.2300e-003	2.7200e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5195	3.5195	7.0000e-005	6.0000e-005	3.5404
Gasoline/Service Station	36841	2.0000e-004	1.8100e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9660	1.9660	4.0000e-005	4.0000e-005	1.9777
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
Total		5.6000e-004	5.0400e-003	4.2400e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.4855	5.4855	1.1000e-004	1.0000e-004	5.5181

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	66460.2	19.3340	8.7000e-004	1.8000e-004	19.4098
Gasoline/Service Station	16701	4.8585	2.2000e-004	5.0000e-005	4.8776
Parking Lot	6160	1.7920	8.0000e-005	2.0000e-005	1.7990
Total		25.9846	1.1700e-003	2.5000e-004	26.0864

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	66460.2	19.3340	8.7000e-004	1.8000e-004	19.4098
Gasoline/Service Station	16701	4.8585	2.2000e-004	5.0000e-005	4.8776
Parking Lot	6160	1.7920	8.0000e-005	2.0000e-005	1.7990
Total		25.9846	1.1700e-003	2.5000e-004	26.0864

6.0 Area Detail

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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	0.0342	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003
Unmitigated	0.0342	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0309					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003
Total	0.0342	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003

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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	3.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0309					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003
Total	0.0342	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2100e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.2847	0.0167	4.0000e-004	1.8223
Unmitigated	1.2847	0.0167	4.0000e-004	1.8223

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	0.417769 / 0.256052	1.0509	0.0137	3.3000e-004	1.4906
Gasoline/Service Station	0.0929732 / 0.0569836	0.2339	3.0400e-003	7.0000e-005	0.3317
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.2847	0.0167	4.0000e-004	1.8223

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	0.417769 / 0.256052	1.0509	0.0137	3.3000e-004	1.4906
Gasoline/Service Station	0.0929732 / 0.0569836	0.2339	3.0400e-003	7.0000e-005	0.3317
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.2847	0.0167	4.0000e-004	1.8223

8.0 Waste Detail**8.1 Mitigation Measures Waste**

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.2060	0.2486	0.0000	10.4201
Unmitigated	4.2060	0.2486	0.0000	10.4201

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	16.95	3.4407	0.2033	0.0000	8.5242
Gasoline/Service Station	3.77	0.7653	0.0452	0.0000	1.8959
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		4.2060	0.2486	0.0000	10.4201

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	16.95	3.4407	0.2033	0.0000	8.5242
Gasoline/Service Station	3.77	0.7653	0.0452	0.0000	1.8959
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		4.2060	0.2486	0.0000	10.4201

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
